

## INVALID UNNAMED MINERALS, UPDATE 2009-02

*Users making reference to this compilation should refer to the primary source (D.G.W. Smith & E.H. Nickel, "A system of codification for unnamed minerals: Report of the Subcommittee for Unnamed Minerals of the IMA Commission on New Minerals, Nomenclature and Classification": Canadian Mineralogist (2007), v. 45, p. 983-1055) and to this website. Additions and changes to the original publication are shown in blue print. Alphabetic symbols in the Reject Category column represent the following: a - the mineral has been subsequently named; b - the data given for the mineral are considered to be inadequate for a match with another unrelated sample to be made with any confidence; c - on the basis of the reported data, the unnamed mineral is not distinct from a previously described, named or unnamed mineral; d - the material examined was probably a mixture; e - the unnamed mineral has been discredited; f - the unnamed substance does not meet IMA-accepted definitions of a mineral.*

<u>IMA Designation</u>	<u>Primary Reference</u>	<u>Secondary Reference</u>	<u>Comments</u>	<u>Reject category</u>
UM1839-//SeO:Pb	*Ann. Phys. 46, 265	Eur. J. Mineral. 6, 337	Inadequate data; later named kerstenite	b
UM1889-//SO:FeH[1]	*Am. J. Sci. 38, 243, 245	Dana (7th) 2, 570	Mineral "A"; this is almost certainly metahohmannite (described in 1838)	c
UM1889-//SO:FeH[2]	*Am. J. Sci. 38, 243, 245	Dana (7th) 2, 570	Mineral "B"; this is almost certainly amaranthite (described in 1888)	c
UM1889-//SO:FeH[3]	*Am. J. Sci. 38, 243, 245	Dana (7th) 2, 570	Mineral "C"; could be szomolnokite or a mixture of other hydrated Fe-sulphates	d
UM1889-//SO:FeH[4]	*Am. J. Sci. 38, 243, 245	Dana (7th) 2, 570	Mineral "D"; could be szomolnokite or a mixture of other hydrated Fe-sulphates	d
UM1896-//TeO:FeH	*Proc. Colorado Sci. Soc. 5, 66 (1894-1896)	Am. Mineral. 29, 211	Identical to UM1944-//TeO:FeH; later described under the name poughite: Am. Mineral. 53 (1968), 1075	c
UM1900-//CO:CuHU	*Vh. Mineral. Ges. 38, 38	Dana (7th) 2, 237	Analysis of a mixture	d
UM1910-//O:MgTi	*Z. Krist. 47, 246	Dana(7th) 1, 542	Inadequate data; qualitative chemical test	b
UM1910-//PO:FeHMn	US Geol. Surv. Bull. 419, 1	Am. Mineral. 34, 513	(Fe,Mn) <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> (OH) <sub>7</sub> - probably rockbridgeite	c
UM1919-//S:AsPb	Mineral. Mag. 18, 360	Dana (7th) 1, 456	Later described under the name baumhauerite-2a: Am. Mineral. 75 (1990), 915	a
UM1920-//	Mineral. Mag. 19, 40	Dana (7th) 1, 488	No chemical information	b
UM1921-//AsO:Pb	*Geol. Fören. Förh. 43, 188	Am. Mineral. 64, 352	Flink #305 and #49; later described under the name paulmooreite	a
UM1924-//O:BaCuV	*Am. J. Sci. 8, 201	Dana (7th) 2, 818	Probably vésigniërite; see Am. Mineral. 40, 942 (Abst.)	c
UM1930-//O:CaNbTaTiU	Am. J. Sci. 19, 17	Dana (7th) 1, 800	Not samarskite but compositionally indistinguishable from euxenite-(Y)	c
UM1931-//O:CaHNbTaTiU	*Norsk. Geol. Tidsskr. 12, 73	Dana (7th) 1, 804	Probably a mixture of several phases - see Am. Mineral. 62, 403; name "tangenite" used	d
UM1931-//O:PbU	Am. Mineral. 16, 213	Am. Mineral. 41, 539	Inadequate data; same as UM1956-01-O:HPbU; mineral "C"	b
UM1934-//PO:CaFMg	*Comm. Serv. Geol. Portugal 19, 65	Mineral. Abst. 6, 440	Analysis no. XIV; white earthy crusts; compared to cryolithiolite (itself probably a mixture)	d
UM1934-//SO:FeH	Ann. R. Osserv. Vesuv. 1934, Ser. 4, 3, 83	Hey (1955), 25.10.3	Later described under the name ferroxahydrate: Zap. Vses. Mineral. Ob. 91 (1962), 490	a
UM1936-//F:K	*Acad. Sci. Lett. Arti, Att. Modena [5], 1, 33	Dana (7th) 2, 28	Later described under the name carobbiite: Rend. Soc. Ital. Mineral. Petrol. 12 (1956), 212	a
UM1936-//SO:NaH	*Acad. Sci. Lett. Arti, Att. Modena [5], 1, 33	Mineral. Abst. 6, 444	NaHSO <sub>4</sub> . Inadequate data	b
UM1937-//O:Zr	*Goldsmiths J. 37, 193	Mineral. Abst. 7, 131	Inadequate data; a synthetic product and thus not a mineral; may possibly be equivalent to tazheranite	b,f
UM1938-//SO:FeHNa	Am. Mineral. 23, 722		Mineral "42"; inadequate data	b
UM1940-//CH	*Mem. Inst. Geol. Univ. Padova 14 (4), 1	Mineral. Abst. 11, 214	Inadequate data	b
UM1940-//S:BiPb[1]	Univ. Toronto Studies, Geol. Ser. 44 (1940), 47	Mineral. Abst. 8, 7	Inadequate data but cell dimensions and space group similar to Nordstromite; monoclinic	b,c
UM1940-//S:BiPb[2]	Univ. Toronto Studies, Geol. Ser. 44 (1940), 47	Mineral. Abst. 8, 7	Inadequate data; hexagonal	b,c
UM1942-//SiO:AlCaNa	Am. Mineral. 27, 143	Mineral. Abst. 8, 287	Inadequate data; impurity in tridymite of composition NaCaAl <sub>3</sub> Si <sub>15</sub> O <sub>36</sub>	b
UM1943-//	Calif. J. Mines & Geology 39, 333		Crestmore "mineral M"; yellow, isotropic; no chemical data	b
UM1943-//BO:AlFeMg	Calif. J. Mines & Geology 39, 333		Crestmore "mineral B"; black prismatic; inadequate data	b
UM1943-//CO:AlCaCuSi	Calif. J. Mines & Geology 39, 333		Crestmore "mineral F"; later described under the name stringhamite: Am. Mineral. 61 (1976), 189	a
UM1943-//CO:AlCaSi	Calif. J. Mines & Geology 39, 333		Crestmore "mineral K"; vitreous, unstable; inadequate data	b
UM1943-//SiO:AlCa	Calif. J. Mines & Geology 39, 333		Crestmore "mineral C"; white fibrous; inadequate data	b
UM1943-//SiO:AlCaFMg	Calif. J. Mines & Geology 39, 333		Crestmore "mineral P"; colourless; inadequate data	b
UM1943-//SiO:AlCaFeHMg	Calif. J. Mines & Geology 39, 333		Crestmore "mineral G"; brownish-black; inadequate data	b
UM1943-//SiO:Ca	Calif. J. Mines & Geology 39, 333		Crestmore "mineral Q"; white silky; inadequate data	b
UM1943-//SiO:CaH	Calif. J. Mines & Geology 39, 333		Crestmore "mineral J"; white, silky; inadequate data	b

<b>UM1943--//SiO:CaHMg</b>	Calif. J. Mines & Geology 39, 333		Crestmore "mineral D"; white, radiating; inadequate data	b
<b>UM1943--//SiO:CaTh</b>	Calif. J. Mines & Geology 39, 333		Crestmore "mineral L"; chalky white; inadequate data	b
<b>UM1943--//VO:CaCuPb</b>	Calif. J. Mines & Geology 39, 333		Crestmore "mineral N"; yellow-green film; inadequate data	b
<b>UM1944--//CH:Fe</b>	*Wiener Chem.-Zeitung 47, 80	Mineral. Abst. 10, 319	Inadequate data	b
<b>UM1944--//CH:Ga</b>	*Wiener Chem.-Zeitung 47, 80	Mineral. Abst. 10, 319	Inadequate data	b
<b>UM1944--//SiO:HMgNi</b>	*Trans. Geol. Soc. S. Africa 46, 119	Mineral. Abst. 9, 189	Later described under the name willemseite: Nat. Inst. Metall. Rept. 352 (1968), 1	a
<b>UM1944--//TeO:FeH</b>	Am. Mineral. 29, 211		Analytical data obtained from HCl-soluble portion only; later described under the name poughite: Am. Mineral. 53 (1968), 1075	b
<b>UM1945--//O:MnTa</b>	Mineral. Mag. 27, 157	Dana (7th) 2, 1072	Indistinguishable from wodjonite. Read in 1945, published in 1946	c
<b>UM1945--//SiO:Fe</b>	*Trans. Geol. Soc. S. Africa 47, 157	Mineral. Abst. 10, 233	Data are inadequate to distinguish the mineral from fayalite or laihunite	b,c
<b>UM1946--//S:AgPbSb</b>	*Mineria Boliviana 3, 11	Mineral. Abst. 10, 147	Indistinguishable from owyheite	c
<b>UM1947--//O:ClSb</b>	*Atti Accad. Naz. Lincei, Cl. Sci. Fis. Mat. Nat., Rendiconti, Ser. 8, 3, 365	Mineral. Abst. 10, 445	Later described under the name onoratoite: Mineral. Mag. 36 (1968), 1037	a
<b>UM1949--//O:FeU</b>	*US Atomic Energy Comm. RMO-563	Mineral. Mag. 30, 736	Iron uranite; inadequate data	b
<b>UM1949--//PO:CaFeMg</b>	Am. Mineral. 34, 513		(Ca,Fe,Mg)Fe <sup>3+</sup> <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> (OH) <sub>2</sub> ·2H <sub>2</sub> O; same as UM1910-01-PO:CaFeMg	c
<b>UM1949--//PO:FeHMn</b>	Am. Mineral. 34, 513		(Fe,Mn) <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> (OH) <sub>7</sub> ; same as UM1910--//PO:FeHMn; <b>probably rockbridgeite</b>	c
<b>UM1949--//PO:FeMn[1]</b>	Am. Mineral. 34, 513	ICDD 15-0442	"Dufrenite-like mineral"; no chemical analysis; perhaps kidwellite; X-ray powder diffraction pattern later reported as mixture	d
<b>UM1949--//PO:FeMn[2]</b>	Am. Mineral. 34, 513		<b>Referred to as a "dufrenite-like mineral" but with minimal data; later described more fully as UM1982-08-PO:FeHMn; formerly coded as UM1949-02-PO:FeMn</b>	c
<b>UM1950--//PO:AIHY</b>	Trudy Min. Mus. Acad. Sci. USSR (1950) 2, 135	Zap. Vses. Mineral. Ob. 80, 238	Later named "koivinite" but inadequate data; perhaps a Y-dominant florencite	b,a
<b>UM1950--//SiO:AlFeHMg</b>	Mineral. Mag. 29, 72		(Mg,Fe <sup>2+</sup> ,Al) <sub>3</sub> (Si,Al) <sub>4</sub> O <sub>10</sub> [OH] <sub>2</sub> ·?H <sub>2</sub> O; later given the unapproved name cardenite: Clay Minerals Bull. 2, 120; possibly a mixture	a,d
<b>UM1951--//CH:[1]</b>	*Mikrochem. Mikrochim. Acta 36-37, 1048	Mineral. Abst. 11, 518	Inadequate data	b
<b>UM1951--//CH:[2]</b>	*Mikrochem. Mikrochim. Acta 36-37, 1048	Mineral. Abst. 11, 518	Red; inadequate data	b
<b>UM1951--//CH:[3]</b>	*Mikrochem. Mikrochim. Acta 36-37, 1048	Mineral. Abst. 11, 518	Rod-shaped crystals; inadequate data	b
<b>UM1951--//PO:AlFNaSr</b>	*Medd. Dansk Geol. For. 12, 109	Mineral. Abst. 12, 14	Later described under the name böggildite: Acta Chem. Scand. 8 (1954), 136	a
<b>UM1952--//AsO:CuHPb</b>	Bull. Soc. fr. Minéral. Crist. 75, 70		Probably impure bayldonite	d
<b>UM1952--//BO:Mg</b>	Acta Cryst. 5, 574	Mineral. Abst. 12, 14	Later described under the name suanite: Mineral. J. 1 (1953), 54	a
<b>UM1952--//Se:CuCoNi</b>	Am. Mineral. 37, 542		Later described under the name tyrrellite: Am. Mineral. 37 (1952), 542	a
<b>UM1952--//VO:Fe</b>	Am. Mineral. 37, 407		Later described under the name nolanite: Am. Mineral. 42 (1957), 619	a
<b>UM1953--//CO:Pb</b>	Tscherm. Mineral. Petrog. Mitt. 3, 298	Mineral. Abst. 12, 329	Hexagonal; a = 5.23Å, c = 29.4Å; associated with hydrocerussite	b
<b>UM1953--//S:AgCuFePb</b>	Am. Mineral. 38, 506	Mineral. Abst. 12, 204	Mineral "Q"; later described under the name dadsonite: Mineral. Mag. 37 (1969), 437	a
<b>UM1953--//SeO:Pb</b>	Bull. Soc. fr. Minéral. Crist. 76, 422	Eur. J. Mineral. 6, 337	Same as kerstenite (see UM1839--//SeO:Pb)	a
<b>UM1954--//BO:FeMgSn</b>	Am. Mineral. 39, 522		Later described under the name hulsite: Am. Mineral. 50 (1955), 249	a
<b>UM1954--//MoO:MgU</b>	Unavailable	Hey (1963), 27.2.6g	Inadequate data	a
<b>UM1954--//O:HV[1]</b>	US Geol. Surv. Bull. 1009B, 54	Am. Mineral. 39, 1037	Later described under the name doloresite: Am. Mineral. 42 (1957), 587	b
<b>UM1954--//O:HV[2]</b>	US Geol. Surv. Bull. 1009B, 54	Am. Mineral. 39, 1037	V <sub>4</sub> O <sub>7</sub> ·H <sub>2</sub> O(?); inadequate data; perhaps montroseite	b
<b>UM1954--//SiO:AlHK</b>	Mineral. Mag. 30, 400		Inadequate data; mixed layer illite-montmorillonite	b
<b>UM1954--//SiO:HU</b>	US Geol. Surv. Bull. 1009B, 31	Am. Mineral. 39, 1037	USiO <sub>4</sub> (?) later described under the name coffinite: Econ. Geol. 49, (1954) 356; Am. Mineral. 41, (1956), 675	a
<b>UM1954--//VO:HNa</b>	US Geol. Surv. Bull. 1009B, 57	Am. Mineral. 39, 1038	Later described under the name barnesite: Am. Mineral. 48 (1963), 1187	a
<b>UM1955--//CH:OU</b>	South Dakota Geol. Surv. Rept. Inv. 79, 102	Mineral. Abst. 14, 182	Inadequate data	b
<b>UM1955--//O:FeHMn</b>	Am. Mineral. 40, 50		Mineral "G"; inadequate data	b
<b>UM1955--//PO:Fe</b>	Am. Mineral. 40, 50		Mineral "C"; inadequate data	b
<b>UM1955--//PO:FeMn[1]</b>	Am. Mineral. 40, 50		Mineral "H"; inadequate data	b
<b>UM1955--//PO:FeMn[2]</b>	Am. Mineral. 40, 50		Minerals "D", "E" & "F" = mitridatite-robertsite series: Am. Mineral. 59 (1974), 48	b
<b>UM1955--//S:BiPbSb</b>	*Trudy Mineral. Muz. Akad. Nauk SSSR 7, 112	Am. Mineral. 41, 814	"bismuth jamesonite"; later described under the name sakharovite: Trudy Mineral. Muz. Akad. Nauk SSSR 10 (1950), 148	a
<b>UM1955--//Se:Co</b>	Neues Jb. Mineral. Mh. (1955), 133	Am. Mineral. 41, 164	Later named freboldite: Am. Mineral. 44 (1959), 907 (Abst.)	a
<b>UM1955--//SiO:FeHKMnNbTi</b>	*Dokl. Akad. Nauk SSSR 100,1159	Can. Mineral. 40, 1629	Later described under the name gjerdingenite-Fe: Can. Mineral. 40 (2002), 1629	a
<b>UM1956--//[1]</b>	Mineral. Mag. 31, 96		Only partial optical data; perhaps related to serpentine group	b
<b>UM1956--//[2]</b>	Mineral. Mag. 31, 96		Only optical data; perhaps related to tualuite	b,c
<b>UM1956--//O:BaCaKNaPbU</b>	Am. Mineral. 41, 539		Mineral "A"; X-ray powder diffraction and optical data; later shown to be a mixture: Can. Mineral. 35 (1997), 145	d
<b>UM1956--//PO:HPb</b>	Trans. Roy. Soc. Edinburgh 63, 85	Mineral. Abst. 14, 283	Probably hydroxyl-dominant analogue of pyromorphite ( <b>hydroxylpyromorphite</b> )	c
<b>UM1956--//SO:Cr</b>	Trans. Roy. Soc. Edinburgh 63, 85	Mineral. Abst. 14, 283	Inadequate data; X-ray powder diffraction pattern similar to lanarkite	b,c

<b>UM1957-II-CI:HNI</b>	J. Sci. Res. Inst. Tokyo 51, 1	Hey (1963): 8.11.8	Later described under the name nickelbischofite: Can. Mineral. 17 (1979), 107	a
<b>UM1957-II-O:FeV</b>	Am. Mineral. 42, 619		FeV <sub>4</sub> O <sub>9</sub> (?); chemically extracted from a mineral mixture	b
<b>UM1957-II-PO:BIHU</b>	*Soboleva & Pudovkina (1957), 201	Am. Mineral. 43, 383	Inadequate data; called "phosphate-walpurkite" (Strunz, 1970)	b
<b>UM1957-II-S:Mn</b>	C.R. Séances Acad. Sci. (Paris) 245, 1146	Am. Mineral. 43, 795.	Later described under the name rambergite: Am. Mineral. 83 (1998), 1117	a
<b>UM1957-II-SO:CrPb</b>	Trans. Roy. Soc. Edinburgh 65, 114	Am. Mineral. 45, 909.	Probably phoenicochroite	c
<b>UM1957-II-SO:GeHPb</b>	Am. Mineral. 42, 743	Mineral. Abst. 13, 524	Later described under the name fleischerite: Neues Jb. Mineral. Mh (1960), 132	a
<b>UM1958-II-AsO:HU</b>	Jahr. geol. Landes. Baden-Wurtemberg 31, 17	Aufschluss 9, 279	A U-arsenate; mineral "E"; equated with chadwickite on the basis of the X-ray powder pattern: BRGM Index Alphabétique de Nomenclature Minéralogique (1968) p.234	c
<b>UM1958-II-Cl:FeH</b>	*Periodico Mineral. 27, 211	Am. Mineral. 44, 908	Inadequate data; mixture	c,d
<b>UM1958-II-MoO:CaHU</b>	2nd Int. Conf. Peaceful Uses Atom. Energy, Proc. (1958), [2], 286	Am. Mineral. 44, 468	Later named calcurlmolite: Am. Mineral. 49 (1964), 1152	a
<b>UM1958-II-O:FeMn</b>	Nature 182, 472		Inadequate data	b
<b>UM1958-II-O:V</b>	Acta Cryst. 11, 56		"Phase B" = "protodoloresite" (?)	b,c
<b>UM1958-II-S:BiPbSe</b>	Calif. Div. Mines Spec. Rept. 51	Mineral. Abst. 14, 188	Inadequate data	b
<b>UM1958-II-S:CuGa</b>	Neues Jb. Mineral. Mh. (1958), 85	Am. Mineral. 43, 1006	Later described under the name gallite: Neues Jb. Mineral. Mh. (1958), 241	a
<b>UM1958-II-SO:HNau</b>	US Geol. Surv. Bull. 1046H	Aufschluss 28, 177	A zippeite-like mineral; later described under the name sodium zippeite: Can. Min. 14, 429; later renamed natrozippeite	c
<b>UM1958-II-SiO:AlFeHMnREE</b>	*Sci. Rept. Tohoku Univ., ser.3, 6, 39	Eur. J. Mineral. 18, 569	Mn <sup>2+</sup> REE AlAlFe <sup>2+</sup> SiO <sub>4</sub> Si <sub>2</sub> O <sub>7</sub> (OH); same mineral as UM1957-01-SiO:AlFeHMnREE	a
<b>UM1958-II-SiO:AlHMg</b>	J. Mineral. Soc. Japan 3, 468		Appears to be montmorillonite	c
<b>UM1958-II-SiO:CCaPFREEY</b>	*Izv. Akad. Nauk Karel. Kol'sk Fil. SSSR 2, 90	Mineral. Abst. 15, 360	Clearly fluorbritholite-(Ce)	c
<b>UM1958-II-SiO:CaHNaZr</b>	*Akad. Nauk SSSR, Kola Filial 1, 146	Am. Mineral. 44, 909	Mineral "2"; probably eudialyte	c
<b>UM1958-II-SiO:U</b>	US Geol. Surv. Bull. 1046H, 491		Inadequate data	b
<b>UM1959-II-As:PtRu</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "6"; Inadequate data; later re-examination showed major Rh and identity with hollingworthite (see CIM Sp. Vol. 23, 192)	c
<b>UM1959-II-As:PtSn</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "4"; inadequate data	b
<b>UM1959-II-AsO:CuZn</b>	Fortsch. Mineral. 37, 87	Am. Mineral. 44, 1323	Mineral "R"; later described under the name chudobaite: Neues Jb. Mineral. Mh. (1960), 1	a
<b>UM1959-II-BO:Mn</b>	Schweiz. Mineral. Petrog. Mitt. 39, 85	Am. Mineral. 45, 254	Mineral "X"; inadequate data	b
<b>UM1959-II-CO:CaCeF</b>	*Trudy IMGRE 2, 181	Bull. Soc. fr. Minéral. Crist. 84, 25	Mineral "X"; inadequate data; possibly Y-bearing synchysite-(Ce) or Y-bearing parisite-(Ce)	b,c
<b>UM1959-II-CO:HNu</b>	*Zap. Vses. Mineral. Ob. 90, 440	Am. Mineral. 47, 418	Appears to be thermonatrite: Am. Mineral. 49 (1964), 1154 (Abst.)	c
<b>UM1959-II-E:FeIrNiPt</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "3"; inadequate data	b
<b>UM1959-II-E:IrPtSn</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "1"; inadequate data	b
<b>UM1959-II-E:PbPd</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "5"; = zvyagintsevite: Am. Mineral. 52, 299 (Abst.)	a
<b>UM1959-II-E:PdPtSn</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "2"; inadequate data; perhaps related to stannopalladinite	b
<b>UM1959-II-O:CaHSrU</b>	Bull. Soc. fr. Minéral. Crist. 82, 239	Am. Mineral. 45, 254	Probably agrinierite (Mineral. Mag. 38, 781)	c
<b>UM1959-II-O:CaTi</b>	*Zap. Vses. Mineral. Ob. 88, 444	Am. Mineral. 45, 479	Later described under the name kassite: Am. Mineral. 52 (1967), 559 (Abst.)	a
<b>UM1959-II-O:Re</b>	Econ. Geol. 54, 254	Mineral. Mag. 35, 871	Inadequate, qualitative compositional data only; possibly Re <sub>2</sub> O <sub>7</sub>	b
<b>UM1959-II-S:CoFeNi</b>	Geologi (Helsinki) 1959, 3-4, 32	Am. Mineral. 47, 173	Later described under the name mackinawite: Am. Mineral. 48 (1963), 215 (Abst.)	a
<b>UM1959-II-S:Fe</b>	Am. Mineral. 44, 974		Probably mackinawite	c
<b>UM1959-II-S:Pd</b>	*Geol. Rudn. Mest. (1959), 68	Am. Mineral. 46, 464	Mineral "8"; inadequate data	b
<b>UM1959-II-SO:CaHNu</b>	Science 129, 1227	Am. Mineral. 44, 1103	Inadequate data; similar to eugsterite	b,c
<b>UM1959-II-SiO:AlBaCaHS</b>	Schweiz. Mineral. Petrog. Mitt. 39, 333	Am. Mineral. 45, 255	Later described under the name wenkite: Schweiz. Mineral. Petrog. Mitt. 42 (1962), 274	a
<b>UM1959-II-VO:CaH</b>	Am. Mineral. 44, 322		Later described under the name hendersonite: Am. Mineral. 47, (1962), 1252	a
<b>UM1960-II-E:SbBi</b>	Neues Jb. Mineral. Abh. 90, 140		Appears Bi-bearing antimony	c
<b>UM1960-II-O:FeNbTaUY</b>	*J. Chem. Soc. Japan 81, 1049	Mineral. Abst. 15, 212	Probably ishikawaite	c
<b>UM1960-II-O:HU</b>	Am. Mineral. 45, 1026		"Dehydrated schoepite"; unique X-ray powder data but probably an artifact	f
<b>UM1960-II-O:Mn</b>	Econ. Geol. 55, 278	Am. Mineral. 47, 246	Later described under the name nsutite: Am. Mineral. 47 (1962), 246	a
<b>UM1960-II-O:NbTa</b>	21st IGC Rept. (1960) 17, 53	Mineral. Abst. 15, 211	Mineral "B"; inadequate data; possibly tantalite-columbite group	b
<b>UM1960-II-O:Ta</b>	21st IGC Rept. (1960) 17, 53	Mineral. Abst. 15, 211	Mineral "A"; inadequate data; possibly aeschynite group	b
<b>UM1960-II-OH:Al</b>	Neues Jb. Mineral. Abh. 95, 1	Am. Mineral. 45, 1317	Inadequate data; possibly nordstrandite or doyleite set differently	b,c
<b>UM1960-II-OH:Ni</b>	Am. Mineral. 45, 1109		Later described under the name theophrastite: Am. Mineral. 66 (1981), 1020	a
<b>UM1960-II-PO:</b>	*Estudos, Notas Trabalhos Serv. Fomento Mineiro (Portugal) 14, 257	Mineral. Abst. 15, 541	Mineral "A"; inadequate data; possibly ehrleite	b,c
<b>UM1960-II-SiO:CaSn</b>	Am. Mineral. 46, 768.		Later described under the name malayaite: Mineral. Mag. 35 (1965), 622	a

<b>UM1960-/-VO:PbU</b>	CSIRO Minerag. Invest. Tech. Paper 2, 46	ICDD 15-0496	Mineral "E"; X-ray and chemical data correspond to those of curiënite	c
<b>UM1961-/-As:IrPt</b>	Mineral. Mag. 32, 833	Mineral. Abst. 15, 290	Appears to be Ir-bearing sperrylite	c
<b>UM1961-/-CO:CaH</b>	*Zap. Vses. Mineral. Ob. 90, 97	Hey (1963) 11.4.10	Inadequate data.	b
<b>UM1961-/-SO:FeHZn</b>	Am. Mineral. 46, 1517.		Later described under the name zincobotryogen: Am. Mineral. 49 (1964), 1776 (Abst.)	a
<b>UM1961-/-Sb:BiPd</b>	Mineral. Mag. 32, 833		Appears to be equivalent to sudburyite; formerly coded as UM1961-08-Sb:BiPd	c
<b>UM1961-/-Sb:BiPt</b>	Mineral. Mag. 32, 833	Mineral. Abst. 15, 290	Appears to be Bi-bearing stumpflite	c
<b>UM1961-/-Sb:Pt</b>	Mineral. Mag. 32, 833	Mineral. Abst. 15, 290	Later described under the name stumpflite: Bull. Soc. fr. Minéral. Crist. 95 (1972), 610	a
<b>UM1961-/-SiO:AlH</b>	Neues Jb. Mineral. Mh. (1961), 112	Mineral. Abst. 15, 292	Probably cookeite (with Li having been missed)	c
<b>UM1961-/-Te:Cu</b>	Am. Mineral. 46, 258		Microchemical tests showed Cu & Te; data inadequate; oxygen could be present	b
<b>UM1961-/-Te:Pt</b>	*Geol. Rudn. Mest. (1961), 64	Am. Mineral. 47, 809	Later described under the name moncheite: Zap. Vses. Mineral. Ob. 92 (1963), 33	a
<b>UM1961-/-TeO:Fe</b>	Science 133, 2017.		Inadequate data; similarities to zemannite	b,c
<b>UM1961-/-TeO:Mn</b>	Science 133, 2017.		Later described under the name denningite: Can. Mineral. 7 (1961), 340 (Abst.)	a
<b>UM1961-/-TeO:MnZn</b>	Science 133, 2017.		Later described under the name spiroffite: Am. Mineral. 47 (1962), 196 (Abst.)	a
<b>UM1961-/-TeO:Zn</b>	Science 133, 2017.		Probably keystoneite (X-ray powder diffraction, optical data) Ni misidentified as Zn?	c
<b>UM1962-/-Bi:Pd</b>	Can. Mineral. 7, 30	CIM Sp. Vol. 23, 177	Mineral "C"; (see Can. Mineral. 7, 95, and CIM Sp. Vol. 23, 189); inadequate data	b
<b>UM1962-/-PO:NaF</b>	*Akad. Nauk SSSR, Kola Filial (1962), 74	Am. Mineral. 48, 1418	Probably natrophosphate	c
<b>UM1962-/-S:AgBiCuPb</b>	Can. Mineral. 7, 338		Later described under the name neyite: Can. Mineral. 10 (1969), 90	a
<b>UM1962-/-S:AsPbSb</b>	Can. Mineral. 7, 339	Am. Mineral. 48, 1485	Later described under the name veenite: Can. Mineral. 9 (1967), 7	a
<b>UM1962-/-S:BiTe</b>	Proc. Australasian Inst. Min. Metall. #203, 67	Austral. J. Mineral. 10, 7	Bi <sub>10</sub> Te <sub>2</sub> S <sub>5</sub> ; not compositionally distinct from josëite-A & josëite-C	c
<b>UM1962-/-S:Mg</b>	Geochim. Cosmochim. Acta 26, 251	Am. Mineral. 47, 1219	Later described under the name niningerite: Science 155 (1967), 451	a
<b>UM1962-/-SO:AlFeZn</b>	Mineral. Sbornik L'vov. Ob. 16, 253		Not distinct from halotrichite	c
<b>UM1962-/-SO:CuFeH</b>	Can. Mineral. 7, 245	Am. Mineral. 47, 1219	Later described under the name poitevinite: Can. Mineral. 8 (1964), 109	a
<b>UM1962-/-SiO:CeFeTi</b>	Trudy IMGRE 9, 3	Zap. Vses. Mineral. Ob. 102, 456	X-ray amorphous with only qualitative compositional data	b
<b>UM1962-/-Se:Cu</b>	Geol. Soc. Am. Mem. 85, 118	ICDD 14-0479	Later described under the name athabascaite: Can. Mineral. 10 (1970), 206	a
<b>UM1963-/-AsO:MgU</b>	Bull. Soc. fr. Minéral. Crist. 86,17	Mineral. Abst. 16, 457	U,Mg-arsenate with distinctive X-ray powder pattern; later described under the name seelite: Mineral. Record 24 (1993), 463; previously coded as UM1963-01-AsO:MgU	a
<b>UM1963-/-C:FeS</b>	J. Geophys. Res. 68, 2011	Am. Mineral. 44, 1419	Inadequate data	b
<b>UM1963-/-CO:CaH</b>	*Biol. Bull. 125, 441	Mineral. Abst. 18, 206	Very probably monohydrocalcite	c
<b>UM1963-/-O:CrFeMnV</b>	Am. Mineral. 48,33		Later described under the name vuorelainenite: Can. Mineral. 20 (1982), 281	a
<b>UM1963-/-S:AsCoFeNi</b>	*Dokl. Akad. Nauk SSSR 153,1420	Am. Mineral. 49, 818	(Co,Ni,Fe)AsS; probably Ni-bearing glaucodot	c
<b>UM1963-/-S:CaFeMgMn</b>	J. Geophys. Res. 68, 2011	Am. Mineral. 44, 1419	Inadequate data; could be niningerite	b,c
<b>UM1963-/-S:CuFe</b>	*Dokl. Akad. Nauk SSSR 152, 408	Am. Mineral. 55, 2135	Originally considered a cubic polymorph of CuFeS <sub>2</sub> ; later named talnakhite: Zap. Vses. Mineral. Ob. 97 (1968), 63	a
<b>UM1963-/-S:CuFeZn</b>	J. Geophys. Res. 68, 2011		"Mineral K"; (Fe,Cu,Zn)S; inadequate data; likely rudashevskyite: Am. Mineral. 93 (2008), 902	b,a
<b>UM1963-/-S:CuGe</b>	*Dokl. Akad. Nauk SSSR 149, 675	Mineral. Abst. 18, 283	Inadequate data	b
<b>UM1963-/-S:FeNi</b>	Am. Mineral. 48, 511	Mineral. Abst. 16, 546	Appears to be mackinawite	c
<b>UM1963-/-Si:FeNi</b>	J. Geophys. Res. 68, 2011	Am. Mineral. 44, 1419	Inadequate data; similarities to suessite and perryite	b,c
<b>UM1963-/-SiO:BBcCaHREEY</b>	*Kristallografiya 8, 677	Am. Mineral. 49, 443	Appears to be calcybeborosilite-(Y) (a mineral presently of uncertain status)	c
<b>UM1963-/-SiO:CaH[1]</b>	Am. Mineral. 48, 924		Inadequate data; similarities to jennite	b,c
<b>UM1963-/-SiO:CaH[2]</b>	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. (1963), 33	Mineral. Abst. 16, 548	Very probably jennite: see Am. Mineral. 51 (1966), 56	c
<b>UM1963-/-Te:AgBi</b>	*Trudy IMGRE 18, 70	Am. Mineral. 49, 818	Later described under the name volynskite: Am. Mineral. 51 (1966), 531 (Abst.)	a
<b>UM1964-/-AsO:CaFeH</b>	*Trudy Mineral. Muz. Akad. Nauk SSSR 15, 176	Am. Mineral. 52, 300	Later described under the name lazarenkoite: Mineral. Zhurn. 3 (1981) (3), 92	a
<b>UM1964-/-COPO:MnNa</b>	*Kristallografiya 9, 109	Mineral. Abst. 16, 648	Later described under the name sidorenkite: Zap. Vses. Mineral. Ob. 108 (1979), 56	a
<b>UM1964-/-OH:AlH</b>	*Acad. Yugoslav. Sci. Arts., Bauxite Symposium	ICDD 31-0018	Later reported to be a mixture	d
<b>UM1964-/-OH:Be</b>	US Dept. Mines Rept. Invest. 6408, 1	Am. Mineral. 49, 1497	Later described under the name behoite: Am. Mineral. 55 (1970), 1	a
<b>UM1964-/-OH:Ni</b>	Can. Mineral. 8, 116	Am. Mineral. 50, 266	Perhaps jamborite (Am. Mineral. 58 (1973), 835), or may be a solid solution of hydrocalcite group minerals	c
<b>UM1964-/-PO:CaCeLaNd</b>	*Dokl. Akad. Nauk SSSR 155, 349	Mineral. Abst. 18, 204	Inadequate data; only partial chemical analysis	b
<b>UM1964-/-PO:FePbSrW</b>	*Bull. Acad. Roy. Sci. Outre-Mer, (1964), 904	Mineral. Abst. 18, 207	Qualitative chemistry; attributed to goyazite-gorceixite group; may be lusungite	b,c
<b>UM1964-/-S:Co</b>	Neues Jb. Mineral. Mh. (1964), 94	Am. Mineral. 50, 2107	Appears to be cobaltpentlandite	c

<b>UM1964--/S:Sn[1]</b>	Neues Jb. Mineral. Mh. (1964), 94	Am. Mineral. 50, 2107	Later described under the name ottemannite: Fortsch. Mineral. 42 (1966), 211	a
<b>UM1964--/S:Sn[2]</b>	Neues Jb. Mineral. Mh. (1964), 94	Am. Mineral. 50, 2107	Appears to be berndtite polytype; formula SnS <sub>2</sub>	c
<b>UM1964--/Se:Ni[1]</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 519	Later described under the name sederholmite: C.R. Soc. Geol. Finland 36 (1964), 113	a
<b>UM1964--/Se:Ni[2]</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 519	Later described under the name sederholmite: C.R. Soc. Geol. Finland 36 (1964), 113	a
<b>UM1964--/Se:Ni[3]</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 519	Later described under the name sederholmite: C.R. Soc. Geol. Finland 36 (1964), 113	a
<b>UM1964--/Se:Ni[4]</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 519	Later described under the name sederholmite: C.R. Soc. Geol. Finland 36 (1964), 113	a
<b>UM1964--/Se:Ni[5]</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 519	Later described under the name sederholmite: C.R. Soc. Geol. Finland 36 (1964), 113	a
<b>UM1964--/SeTe:Ni</b>	Geologi (Helsinki) 5, 53	Am. Mineral. 50, 265	Later described under the name kitkaite: Am. Mineral. 50 (1965), 581	a
<b>UM1964--/SiO:Fe</b>	Nature, Phys. Sci. 201, 596	ICDD 16-0376	Qualitative chemistry with X-ray powder diffraction data; card later withdrawn by ICDD. Formerly coded as UM1964-05-SiO:Fe	b
<b>UM1965--/AsO:FeHPb</b>	Tscherm. Mineral. Petrog. Mitt. 11, 121	Am. Mineral. 52, 1585	Later described under the name segnitite: Am. Mineral. 77 (1992), 656	a
<b>UM1965--/CO:CaCeLaSr</b>	Can. Mineral. 8, 398	Am. Mineral. 51, 533	Appears to be calcio-ancylite-(Ce)	c
<b>UM1965--/CO:CaFeMgMnY</b>	*Rev. Roum. Géol. Geophys. Géogr. Ser. géol. 9, 59	Mineral. Abst. 19, 128	Ankerite containing some yttrium	c
<b>UM1965--/E:AuCU</b>	Trans. Inst. Mining Metall. 74, 933		AuCu; same composition later described under the name tetra-auricupride: Sci. Geol. Sinica 11 (1982), 111	a
<b>UM1965--/O:NbU</b>	*Southeastern Geol. 6, 79	Mineral. Abst. 17, 637	Later described under the name liandratite: Am. Mineral. 63 (1978), 941	a
<b>UM1965--/PO:AlCaHLiMnNa</b>	*Rept. Rwandaise Ministeri Econ., Bull. Serv. Géol. 2, 11	Am. Mineral. 51, 1819	Later described under the name bertossaite: Can. Mineral. 8 (1966), 668	a
<b>UM1965--/S:AsrPtRh</b>	Am. Mineral. 50, 1068	CIM Sp. Vol. 23, 177	Later described under the name platarsite: Can. Mineral. 15 (1977), 385 & CIM Sp. Vol. 23, 189	a
<b>UM1965--/S:Cr</b>	Geochim. Cosmochim. Acta 29, 1131		CrS? Inadequate data	b
<b>UM1965--/S:CrFe</b>	Geochim. Cosmochim. Acta 29, 1131		(Fe,Mn,Mg) <sub>x</sub> CrySz; probably daubrélite	b,c
<b>UM1965--/S:IrOsRu</b>	Trans. Inst. Mining Metall. 74, 933	Am. Mineral. 51, 1551	An Os- and Ir-bearing variety of laurite	c
<b>UM1965--/Se:CuTe</b>	Can. Mineral. 8, 397	Am. Mineral. 51, 533	Later described under the name bambollaite: Can. Mineral. 11 (1972), 738	a
<b>UM1965--/SiO:CaNaZr</b>	Can. Mineral. 8, 398	Am. Mineral. 51, 533	Later described under the name hilairite: Can. Mineral. 12 (1974), 237. Original report of K was in error	a
<b>UM1965--/SiOPO:AlCaFeH</b>	*Zap. Vses. Mineral. Ob. 94, 465	Mineral. Abst. 17, 697	Amorphous and inadequately characterised; could be a mixture	b,d
<b>UM1966--/AsO:FeHPb</b>	Tscherm. Mineral. Petrog. Mitt. 11, 121	Am. Mineral. 52, 1585	Later described under the name segnitite: Am. Mineral. 77 (1992), 656	a
<b>UM1966--/E:AgSb</b>	Can. Mineral. 8, 610	Mineral. Abst. 20, 69-	Not distinguishable from allargentum	c
<b>UM1966--/E:BiPbPd</b>	Can. Mineral. 8, 541	Am. Mineral. 52, 1579	Later described under the name polarite: Zap. Vses. Mineral. Ob. 98 (1969), 708	a
<b>UM1966--/E:BiPdTe</b>	Mineral. Mag. 35, 815	Mineral. Abst. 17, 696	Mineral "C"; compositional data suggest this is a Bi-bearing kotulskite	c
<b>UM1966--/E:PbPd</b>	Can. Mineral. 8, 541		Pd <sub>3</sub> Pb; later described under the name zvyagintsevite: Geol. Rud. Mest. 8 (1966), 94	a
<b>UM1966--/O:FeHTi</b>	Can. Mineral. 8, 674	Am. Mineral. 52, 1580	Inadequate data; strong similarities to pseudorutile and some to pseudobrookite	b,c
<b>UM1966--/O:Re</b>	Mineral. Mag. 35, 871		Inadequate, qualitative compositional data only; possibly Re <sub>2</sub> O <sub>7</sub>	b
<b>UM1966--/S:CuGe</b>	*Dokl. Akad. Nauk Azerb. SSR 22, 29	Mineral. Abst. 19, 225	Only qualitative chemistry	b
<b>UM1966--/S:PbSb</b>	Can. Mineral. 8, 667	Am. Mineral. 52, 1580	Later described under the name tintinaite: Can. Mineral. 9 (1968), 371	a
<b>UM1966--/Se:Pb</b>	*C.R. Acad. Sci. Paris, Ser. D, 263, 465	Mineral. Abst. 20, 69-559	Inadequate data; might be demesmaeckerite	b,c
<b>UM1966--/SiO:AlBeFe</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#12"; later equated with cordylite-(Ce), but the compositional data do not agree	a,b
<b>UM1966--/SiO:AlBeMgMn</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#4"; later described under the name steacyite: Can. Mineral. 20 (1982), 59; but the compositional data do not agree	a
<b>UM1966--/SiO:AlBeMgMnNbTi</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#17"; later described under the name perraultite: Can. Mineral. 29 (1991), 355	a
<b>UM1966--/SiO:AlMnYYb</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#6"; later described under the name monteregionite-(Y): Can. Mineral. 16 (1978), 561; but compositional data do not agree	a
<b>UM1966--/SiO:BeMgMnNbTi</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#18"; later described under the name tundrite-(Ce): Am. Mineral. 50 (1965), 2097; but the compositional data do not agree	a
<b>UM1966--/SiO:CaFeMgMnNa</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#5"; later described under the name labuntsovite: Mineral. Record 21 (1990), 363; but the compositional data do not agree	a
<b>UM1966--/SiO:CaKNa</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#15"; later described under the name carletonite: Am. Mineral. 56 (1971), 1855	a
<b>UM1966--/SiO:CaNaZr</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#20"; later described under the name hilairite: Can. Mineral. 12 (1974), 237. Original report of K was in error	a
<b>UM1966--/SiO:MgMnNaTi</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#19"; later equated with nenadkevichite: Mineral. Record 21 (1990), 363; but the compositional data do not agree	a
<b>UM1966--/SiO:NaZr</b>	Can. Mineral. 8, 662	Can. Mineral. 9, 109	"UK#13"; later described under the name lemoynite: Can. Mineral. 9 (1969), 585	a

<b>UM1966-/- SiOPO:CaFFeHMnNaPREEY</b>	*Zap. Vses. Mineral. Ob. 95, 339	Mineral. Abst. 18, 125	Later described under the name proshchenkoite-(Y): Mineral. Mag. 72 (2008), 1071	a
<b>UM1966-/-Te:HgPd</b>	Mineral. Mag. 35, 815	Mineral. Abst. 17, 696	Mineral "A"; inadequate compositional data and little else; might be temagamite or Hg-bearing kotulskite	b,c
<b>UM1967-/-As:NiPd</b>	*Zap. Vses. Mineral. Ob. 96, 432	CIM Sp. Vol. 23, 177	Compositionally indistinguishable from majakite (CIM Sp. Vol. 23, 185)	c
<b>UM1967-/-BO:CaHNaREE</b>	USGS Prof. Paper 575-C, c.38	Am. Mineral. 53, 1081	REE-borate mineral later described under the name braitschite-(Ce): Am. Mineral. 53 (1968), 1081	a
<b>UM1967-/-E:PbPd</b>	*Zap. Vses. Mineral. Ob. 96, 432	CIM Sp. Vol. 23, 177	Compositionally indistinguishable from plumbopalladinite but discrepancies in VHN and reflectance values; (CIM Sp. Vol. 23, 184)	c
<b>UM1967-/-O:CaFeMnTaTi</b>	*C.R. Soc. Géol. Finlande 39, 95	Mineral. Abst. 19, 312	Inadequate data; an alteration product of columbite	b
<b>UM1967-/-S:AsCuTe</b>	*Mem. Bur. Rech. Géol. Minières, Paris 54, 1	Mineral. Abst. 21, 70-3397	Appears to be goldfeldite on the basis of X-ray powder diffraction lines and composition	c
<b>UM1967-/-S:CoFeNiPd</b>	Mineralium Deposita 1, 269	Mineral. Abst. 20, 69-1527	Mineral "b"; inadequate data	b
<b>UM1967-/-S:CuFe</b>	Econ. Geol. 62, 910		Later described un the name talnakhite: Zap. Vses. Mineral. Ob. 97 (1968), 63	a
<b>UM1967-/-S:FeMg</b>	Science 155, 451	Can. Mineral. 40, 1687	(Fe,Mg)S; originally included with niningerite but later described under the name keilite: Can. Mineral. 40, 1687	a
<b>UM1967-/-S:FeNiPdRh</b>	Mineralium Deposita 1, 269	Mineral. Abst. 20, 69-1527	Mineral "a"; inadequate data	b
<b>UM1967-/-S:PbSb</b>	Can. Mineral. 9, 191	Mineral. Abst. 20, 69-2384	Mineral "QM"; Later described under the name dadsonite: Mineral. Mag. 37 (1969), 437	a
<b>UM1967-/-S:PdPtRh</b>	Mineralium Deposita 1, 269	Mineral. Abst. 20, 69-1527	Mineral "c"; inadequate data	b
<b>UM1967-/-SiO:BaFeNaREETI</b>	Am. Mineral. 52, 1762		Later described under the name bario-orthojoaquinite: Am. Mineral. 67 (1982), 809	a
<b>UM1967-/-SiO:BaKNbTaTi</b>	*C.R. Soc. Géol. Finlande 39, 95	Mineral. Abst. 19, 312	Inadequate data	b
<b>UM1967-/-SiO:YYb</b>	*Dokl. Earth Sci. 176, 136		Later described under the name keiviite-(Y): Mineral. Zhurn. 7 (6) (1985), 79	a
<b>UM1967-/-Te:BiPb</b>	Can. Mineral. 9, 305	Am. Mineral. 53, 1421	Later described under the name ruckidgeite: Zap. Vses. Mineral. Ob. 106 (1977), 62; identical with UM1969-/-Te:BiPb	a
<b>UM1968-/-As:Ni</b>	Neues Jb. Mineral. Mh. (1968), 420	Am. Mineral. 54, 990	Inadequate data	b
<b>UM1968-/-As:NiPd</b>	*Genkin (1968), 1	CIM Sp. Vol. 23, 177	Probably Ni-bearing vincentite (CIM Sp. Vol. 23, 189)	c
<b>UM1968-/-As:PbPd</b>	*Genkin (1968), 1	CIM Sp. Vol. 23, 177	Probably Pb-bearing vincentite (CIM Sp. Vol. 23, 188)	c
<b>UM1968-/-E:C</b>	Science 161, 363	Am. Mineral. 54, 326	Later described under the name chaoite: Naturwissenschaften 56, 493	a
<b>UM1968-/-E:PbPdPtSn</b>	*Genkin (1968), 1	CIM Sp. Vol. 23, 177	Mixture of atokite + rustenburgite (CIM Sp. Vol. 23, 182)	d
<b>UM1968-/-S:AgBiCuPb</b>	Neues Jb. Mineral. Mh. (1968), 236	Am. Mineral. 54, 990	Later described under the name hodrushite: Mineral. Mag. 37 (1970), 641	a
<b>UM1968-/-Se:BiS</b>	*Izv. Akad. Nauk Kaz. SSR (1968) (5), 42	Zap. Vses. Mineral. Ob. 104, 618	Bi(Se,S); later described under the name nevskite: Zap. Vses. Mineral. Ob. 113 (1984), 351	a
<b>UM1968-/-TeO:FeHZn</b>	Tschem. Mineral. Petrog. Mitt. 12, 108	Mineral. Abst. 19, 180	Later described under the name zemannite: Can. Mineral. 10 (1969), 139 (Abst.)	a
<b>UM1969-/-AsO:BaCu</b>	Aufschluss 20, 85		Inadequate data; pale green Ba,Cu-arsenate (with CO <sub>3</sub> ?). Diffraction pattern said to differ from known Cu-arsenates	b
<b>UM1969-/-AsO:Bi</b>	*Actas Jornadas Geol. Argentina (4th) 1, 67	Am. Mineral. 56, 1489	Said to contain > Bi and < As than rooseveltite, but X-ray powder pattern essentially same; see also Econ. Geol. 64, 271	b,c
<b>UM1969-/-ClO:BiCdPb</b>	*Dokl. Akad. Nauk UzbSSR (1969) (10), 41	Zap. Vses. Mineral. Ob. 102, 445	Qualitative spectrographic analysis only; suggests formula (Cd,Pb)BiClO <sub>2</sub>	b
<b>UM1969-/-IO:ClPb</b>	*Deut. Mineral. Ges. Semml. Berne 1969, 35	Am. Mineral. 55, 1814; 56, 359	Later described under the name seeligerite: Neues Jb. Mineral. Mh. (1971), 210	a
<b>UM1969-/-OHS:FeMg</b>	Am. Mineral. 54, 437		Later described under the name tochilinite: Zap. Vses. Mineral. Ob. 100 (1971), 477	a
<b>UM1969-/-S:AgBiCuPb[1]</b>	Can. Mineral. 10, 90	Am. Mineral. 55, 1445	Later described under the name ourayite: Neues Jb. Mineral. Abh. 131 (1971), 56	a
<b>UM1969-/-S:AgBiCuPb[2]</b>	Can. Mineral. 10, 90	Am. Mineral. 55, 1445	Appears to be wittite (on the basis of X-ray powder diffraction pattern)	c
<b>UM1969-/-S:AgPbSb</b>	Geol. Soc. Am. Mem. 109, 107	Am. Mineral. 55, 1067	Data inadequate, but probably fizélyite	b,c
<b>UM1969-/-S:BiPb</b>	Tschem. Mineral. Petrog. Mitt. 13, 149	Mineral. Abst. 21, 70-2608	Appears to be lillianite (on basis of composition and cell dimensions)	c
<b>UM1969-/-S:CoSb</b>	Can. Mineral. 10, 128	Am. Mineral. 55, 1444	Later described under the name paracostibite: Can. Mineral. 10 (1970), 232	a
<b>UM1969-/-Sb:Ni</b>	Can. Mineral. 10, 128	Am. Mineral. 55, 1444	Later described under the name nisbite: Can. Mineral. 10 (1970), 232	a
<b>UM1969-/-Se:Cu</b>	Can. Mineral. 10, 135	Mineral. Abst. 21, 70-1646	Later described under the name athabascaite: Can. Mineral. 10 (1970), 207	a
<b>UM1969-/-SiO:AlHNa</b>	*Medd. Grønland Unders. 181, 10	Am. Mineral. 55, 534	Later described under the name tetranatrolite, which latter was abandoned in favour of gonnardite	a
<b>UM1969-/-SiO:CaFHNbTi</b>	*Semenov (1969), 55	Am. Mineral. 55, 2137	A silicified pyrochlore: Dokl. Earth Sci. 248 (1979), 127	b
<b>UM1969-/-SiO:CaHKNaNbTi</b>	Can. Mineral. 10, 143	Mineral. Abst. 21, 70-1652	Mont Saint-Hilaire "UK#19-1"; later described under the name gjerdingenite-Na: Can. Mineral. 45, 529	a

<b>UM1969--//SiO:HNbBTi</b>	Can. Mineral. 10, 143	Mineral. Abst. 21, 70-1652	Appears to be nenadkevichite; Mont St. Hilaire "UK#19-2"	c
<b>UM1969--//SiO:NaZr</b>	*Dokl. Akad. Nauk SSSR 189, 166	Am. Mineral. 55, 1072	Later described under the name parakeldyshite: Tr. Mineral. Muz. Akad. Nauk SSSR 22 (1975), 120	a
<b>UM1969--//Te:BiPb</b>	Can. Mineral. 9, 709	Mineral. Abst. 21, 70-1605	Later described under the name rucklidgeite: Zap. Vses. Mineral. Ob. 106 (1977), 62; same as 1967--//Te:BiPb	a
<b>UM1970--//As:NiPd</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	(Pd,Ni,Cu,Rh) <sub>3</sub> As; not distinguishable from Ni-rich vincentite or Ni-rich guanglinite	c
<b>UM1970--//Bi:PbPd[1]</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd <sub>3</sub> Pb <sub>3</sub> Bi; same as UM1967-03-Bi:PbPd	c
<b>UM1970--//Bi:PbPd[2]</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd(Bi,Pb); appears to be polarite	c
<b>UM1970--//Bi:Pd</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	PdBiz; same as UM1968-01-Bi:Pd	c
<b>UM1970--//CO:CaTe</b>	Mineral. Record 1, 40		Later described under the name mroseite: Can. Mineral. 13 (1975), 286	a
<b>UM1970--//E:CuPdSbSn</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	(Pd,Cu,Pt) <sub>4.77</sub> (Sn,Sb); identical to UM1967-04-E:CuPdSbSn	c
<b>UM1970--//E:CuPdPtSn</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd <sub>2</sub> PtSnCu (reported) but close to (Pd,Cu,Pt) <sub>3</sub> Sn and hence probably taimyrite or a Pt-rich cabriite	c
<b>UM1970--//E:CuPdSn</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	(Pd,Cu) <sub>3</sub> Sn (CIM Sp. Vol. 23, 187); later described under the name cabriite: Can. Mineral. 21 (1983), 481	a
<b>UM1970--//E:PbPd[1]</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd <sub>3</sub> Pb; appears to be zvyagintsevite	c
<b>UM1970--//E:PbPd[2]</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd <sub>4</sub> Pb <sub>3</sub> ; same as UM1967-05-E:PbPd	c
<b>UM1970--//E:PbPdPtSn</b>	Geokhimiya (10), 1155	Geochem. Internat. 7, 788	(Pd,Pt) <sub>3</sub> (Pb,Sn,Cu,Fe,Ni) <sub>0.92</sub> ; probably very Sn-rich zvyagintsevite	c
<b>UM1970--//E:PdPtSn</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Appears to be rustenburgite (CIM Sp. Vol. 23, 193)	c
<b>UM1970--//O:V</b>	*Dokl. Akad. Nauk SSSR 193, 683.	Am. Mineral. 56, 1487	Later described under the name shcherbinaite: Zap. Vses. Mineral. Ob. 101 (1972), 464	a
<b>UM1970--//OH:FeGeZn</b>	Neues Jb. Mineral. Abh. 114, 89	Am. Mineral. 56, 1488	Mineral "A"; appears to be Zn-bearing stottite	c
<b>UM1970--//OH:FeSn</b>	Neues Jb. Mineral. Abh. 114, 89	Am. Mineral. 56, 1488	Mineral "D"; later described under the name natanite: Zap. Vses. Mineral. Ob. 110 (1981), 492	a
<b>UM1970--//OH:MnSn</b>	Neues Jb. Mineral. Abh. 114, 89	Am. Mineral. 56, 1488	(Fe,Mn)(Sn,Ge)(OH) <sub>6</sub> ; mineral "C"; Ge-bearing wickmanite	c
<b>UM1970--//OH:Sn</b>	Neues Jb. Mineral. Abh. 114, 89	Zap. Vses. Mineral. Ob. 101, 281	Mineral "E"; an incomplete analysis; may be varlamoffite	b,c
<b>UM1970--//OHS:FeMg</b>	Am. Mineral. 55, 283		Appears to be same as UM1969--//OHS:FeMg; see also UM1972--//OHS:FeMg	c
<b>UM1970--//PO:Fe</b>	Am. Mineral. 55, 135		A basic iron phosphate; later described under the name kidwellite: Mineral. Mag. 42 (1978), 137	a
<b>UM1970--//S:AgBiPb</b>	Can. Mineral. 10, 173	Am. Mineral. 56, 634	Phase "X"; Later described under the name vikingite: Neues Jb. Mineral. Abh. 131, 56	a
<b>UM1970--//S:BiTe</b>	Geol. Geofiz. 11, 123	Am. Mineral. 56, 1839	Mineral "L"; indistinguishable from protojosite on the basis of reported data	c
<b>UM1970--//S:CuFe</b>	Am. Mineral. 55, 913	Mineral. Abst. 21, 70-3391	Appears to be nukundamite (see Am. Mineral. 65, 407)	c
<b>UM1970--//S:CuFeSn</b>	Mineralium Deposita 5, 29	Am. Mineral. 55, 1811	Described initially under the working name "LU", it is identical to petrukite described later: Can. Mineral. 27 (1989), 673	a,c
<b>UM1970--//S:IrOsRu</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	(Ru,Os,Ir) <sub>3</sub> S <sub>4</sub> ; identical to UM1965-10-S:IrOsRu	c
<b>UM1970--//Se:Pd</b>	Bull. Soc. fr. Minéral. Crist. 93, 476		PdSe <sub>2</sub> ; later described under the name verbeekite: Mineral. Mag. 66, 173	a
<b>UM1970--//SiO:AlIi</b>	Carnegie Inst. Wash. Year Book 68, 339	Am. Mineral. 55, 1815	Later described under the name virgilite: Am. Mineral. 63 (1978), 461	a
<b>UM1970--//SiO:CaFeTiYZr</b>	*Naturwissen. 57, 98	Mineral. Abst. 21, 70-3643	Inadequate data	b
<b>UM1970--//SiO:FeTiYZr</b>	*Proc. Apollo 11 Lunar Sci. Conf. 1, 221	Mineral. Abst. 22, 71-2115	Inadequate data	b
<b>UM1970--//Sn:CuSb</b>	*Zap. Vses. Mineral. Ob. 99, 68	Am. Mineral. 56, 358	Cu(Sn,Sb); later described under the name sorosite: Am. Mineral. 83 (1998), 901	a
<b>UM1970--//Te:BiPd</b>	*Geokhimiya (10), 1155	Geochem. Internat. 7, 788	Pd <sub>2</sub> BizTe <sub>3</sub> ; same as UM1970-27-Te:BiPd	c
<b>UM1970--//TeO:Fe</b>	Mineral. Record 1, 40		Inadequate data; possibly kinichilite	b
<b>UM1970--//TeO:U</b>	Mineral. Record 1, 40		Later described under the name schmitterite: Am. Mineral. 56 (1971), 411	a
<b>UM1971--//[1]</b>	Am. Mineral. 56, 395		"UN-3"; yellow or pink powder; no chemical data	b
<b>UM1971--//[2]</b>	Am. Mineral. 56, 395		"UN-4"; ochre-yellow powder; no chemical data	b

UM1971-//[3]	Am. Mineral. 56, 395		"UN-10"; a light yellow stain; no chemical data	b
UM1971-//[4]	Am. Mineral. 56, 395		"UN-11"; later described under the name caysichite: Can. Mineral. 12 (1974), 293	a
UM1971-//[5]	Am. Mineral. 56, 395		"UN-12"; a canary-yellow stain; no chemical data	b
UM1971-//[6]	Am. Mineral. 56, 395		"UN-13"; a yellowish white powder; no chemical data	b
UM1971-//[7]	Am. Mineral. 56, 395		"UN-16"; later described under the name caysichite: Can. Mineral. 12 (1974), 293	a
UM1971-//[8]	Am. Mineral. 56, 395		"UN-17"; Greenish yellow prismatic crystals; no chemical data	b
UM1971-//[9]	Am. Mineral. 56, 395		"UN-18"; reddish brown, waxy; no chemical data	b
UM1971-//-AsO:CuFeS	Mineral. Record 2, 214	Am. Mineral. 57, 1004	Mineral "6b"; inadequate data	b
UM1971-//-E:PbPdPtSn	*Zap. Vses. Mineral. Ob. 100, 171	Am. Mineral. 57, 596	Later described under the name atokite: Can. Mineral. 13 (1975), 146	a
UM1971-//-E:PdPtSn	*Zap. Vses. Mineral. Ob. 100, 171	Am. Mineral. 57, 595	Later described under the name rustenburgite: Can. Mineral. 13 (1975), 146	a
UM1971-//-PO:HMgU	*Bol. Inst. Geosci. Astron. Univ. Sao Paulo, 2, 83	Am. Mineral. 59, 212	Mineral "X"; later described under the name phurcalite: Can. Mineral. 29 (1991), 95	a
UM1971-//-S:AgBiCu	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	(Ag,Cu,Pb) <sub>3</sub> Bi <sub>7</sub> S <sub>12</sub> ; "Phase II"; formerly coded as UM1971-05-S:AgBiCu but not compositionally distinct from benjaminite	c
UM1971-//-S:AgBiCuPb	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	Phase "VII"; (Ag <sub>0.9</sub> Cu <sub>0.1</sub> )PbBi <sub>3</sub> S <sub>6</sub> ; appears to be gustavite with minor Cu	c
UM1971-//-S:AgPbSb	*Dokl. Akad. Nauk SSSR 199, 1138	Zap. Vses. Mineral. Ob. 102, 441	AgPb <sub>2</sub> Sb <sub>3</sub> S <sub>7</sub> ; probably fizelyite	c
UM1971-//-S:BiTe	*Godovikov <i>et al.</i> (1971), 84	Zap. Vses. Mineral. Ob. 102, 443	Indistinguishable from sulphotsumoite (described 1982), on the basis of data reported	c
UM1971-//-S:Hg	*Zap. Vses. Mineral. Ob. 100, 731	Mineral. Abst. 23, 72-2291	Gamma-HgS; later described under the name hypercinnabar: Am. Mineral. 63 (1978), 1143	a
UM1971-//-SiO:AlBaKNaTi	Mineral. Record 2, 191	Mineral. Abst. 23, 72-1407	Later described under the name jonesite: Mineral. Record 8, 453	a
UM1971-//-SiO:AlCaCeFeTh	Meliksetyan (1971), 117	Zap. Vses. Mineral. Ob. 102, 451	Metamict; semi-quantitative analysis only	b
UM1971-//-SiO:FHREETIY	*Materialy. Mineral. Kol'sk Poluost. 8, 176	Mineral. Abst. 25, 74-1453	Partial chemical analysis; X-ray powder diffraction data; identical to yftisite	c
UM1971-//-SiO:KZr	*Izv. Akad. Nauk SSSR Neorg. Mater. 7, 180	Zap. Vses. Mineral. Ob. 101, 286	Later described under the name khibinskite: Zap. Vses. Mineral. Ob. 103 (1974), 110	a
UM1971-//-TaO:Mg	Am. Mineral. 56, 395		"UN-17"; perhaps Mg <sub>2</sub> Ta <sub>2</sub> O <sub>5+y</sub> ; inadequate data	b
UM1971-//-Te:AgAu	Trudy Inst. Geol. Nauk AN KazSSR 31, 16	Zap. Vses. Mineral. Ob. 102, 444	Approximate formula: Ag <sub>1.1</sub> AuTe <sub>3.8</sub> ; probably sylvanite	c
UM1971-//-Te:BiPb	*Geol. Rudn. Mest. 13, 99	Zap. Vses. Mineral. Ob. 102, 444	Varies between Bi <sub>2.51</sub> Pb <sub>0.44</sub> Te <sub>3</sub> & Bi <sub>2.45</sub> Pb <sub>2.50</sub> Te <sub>3.42</sub> ; compositional latitude does not permit unequivocal identification	b
UM1971-//-VO:BiCu	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 15, 63	Am. Mineral. 57, 1315	Appears to be namibite	c
UM1972-//-As:PdTe	Izv. Akad. Nauk SSSR, Ser. Geol. No. 11, 85	CIM Sp. Vol. 23, 177	Later described under the name vincentite: Mineral. Mag. 39 (1974), 525	a
UM1972-//-AsO:CaH	Aufschluss 23, 279	Am. Mineral. 58, 561	Later described under the name ferrarisite: Bull. Minéral. 103 (1980), 533	a
UM1972-//-AsO:CaHMg	Aufschluss 23, 279	Am. Mineral. 58, 561	Later described under the name camgasite: Aufschluss 40 (1989), 369	a
UM1972-//-AsO:U	Aufschluss 9, 279		An amorphous U-arsenate; inadequate data	b
UM1972-//-AsSO:Ca	Aufschluss 23, 279	Am. Mineral. 58, 561	Later described under the name machatschkiite: Tscherms. Mineral. Petrog. Mitt. 24 (1977), 125	a
UM1972-//-Bi:BiPdTe	*Yushko-Zakharova <i>et al.</i> (1972), 58	Zap. Vses. Mineral. Ob. 103, 613	Indistinguishable from Pb- and Te-bearing sobolevskite	c
UM1972-//-Bi:BiPd[1]	*Yushko-Zakharova <i>et al.</i> (1972), 58	Zap. Vses. Mineral. Ob. 103, 613	Probably sobolevskite	c
UM1972-//-Bi:BiPd[2]	*Yushko-Zakharova <i>et al.</i> (1972), 58	Zap. Vses. Mineral. Ob. 103, 613	Pd <sub>2</sub> Bi; indistinguishable from UM1970-03-Bi:BiPd	c
UM1972-//-CO:HKMg	Schweiz. Mineral. Petrog. Mitt. 52, 93	Am. Mineral. 58, 139	Later described under the name baylissite: Schweiz. Mineral. Petrog. Mitt. 56, (1976) 187	a
UM1972-//-COCl:HPb	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. 6, 82	Am. Mineral. 59, 211	Later described under the name barstowite: Mineral. Mag. 55 (1991), 121	a
UM1972-//-E:CuSn	Neues Jb. Mineral. Mh. (1972), 108	Am. Mineral. 58, 347	Same as UM1965-06-E:CuSn	c
UM1972-//-E:PdPt	*Horvath <i>et al.</i> (1972)	Zap. Vses. Mineral. Ob. 102, 436	Qualitative analysis only; minor Au, Bi, Sb, Pb & As	b
UM1972-//-O:CaFeTiZr	Nature, Phys. Sci. 236, 215	Am. Mineral. 58, 141	Mineral "X"; later described under the name lovingite: Am. Mineral. 63 (1978), 28	a
UM1972-//-OH:ClCuZn	Neues Jb. Mineral. Mh. (1972), 335	Mineral. Abst. 24, 73-1934	Given working name "anarakite" but subsequently shown to be a Zn-bearing paratacamite (see Embrey & Fuller, 1980)	c
UM1972-//-OHS:FeMg	Am. Mineral. 57, 1037		Appears to be tochilinite: Zap. Vses. Mineral. Ob. 100 (1971), 477; see also UM1970-//OHS:FeMg & UM1969-//OHS:FeMg	c



UM1972-/-PO:[1]	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 16, 56	Am. Mineral. 59, 1140	White rosettes; data are inadequate for recognition	b
UM1972-/-PO:[2]	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 16, 56	Am. Mineral. 59, 1140	Greenish yellow mineral; data are inadequate for recognition	b
UM1972-/-PO:CaFeMnNa	24 <sup>th</sup> IGC, Rept. 14, 183	Mineral. Abst. 24, 73-4070	Metamict; probably ferroalluaudite or arrojadite	b,c
UM1972-/-S:AsPb	Neues Jb. Mineral. Mh. (1972), 433	Am. Mineral. 58, 967	Identical to UM1966-04-S:AsPb	c
UM1972-/-S:BiCuPb	*Borodaev & Mozgova (1972)	Zap. Vses. Mineral. Ob. 102, 441	(Cu) <sub>0.4-1.8</sub> (Pb) <sub>0.4-1.8</sub> (Bi) <sub>6.2-7.6</sub> S <sub>12</sub> ; several minerals lie within these ranges	b
UM1972-/-S:Cu	Nature, Phys. Sci. 238, 123	Am. Mineral. 58, 561	Later described under the name roxbyte: Mineral. Mag. 53 (1989), 323	a
UM1972-/-S:CuFe	*J. Geol. Soc. India 13, 185	Mineral. Abst. 24, 73-1878	Appears to be identical to UM1970-24-S:CuFe.	c
UM1972-/-S:FeMnZn	Meteoritics 7, 429	Am. Mineral. 58, 806	(Fe <sub>0.54</sub> Zn <sub>0.25</sub> Mn <sub>0.16</sub> )S. The Fe-dominant end-member later described as rudashevskyite. Formerly coded as UM1972-12-S:FeMnZn	
UM1972-/-S:Rh	*Sci. Repts. Kagoshima-Kokkaido Univ. 21, 119	Am. Mineral. 67, 1080	Approximate formula RhS; inadequate data; not known synthetically; perhaps the same as UM1976-18-S:RhRu	b
UM1972-/-Sb:Pt	Minerals Sci. Eng. 4, 3	Mineralium Deposita 10, 71	"PtSb"; very low total; probably same as UM1975-17-Sb:PtPd with Pd having been missed	c
UM1972-/-SiO:AlCaFeNa	*Semenov (1972)	Zap. Vses. Mineral. Ob. 102, 456	Inadequate data	b
UM1972-/-SiO:AlHKNa	*Semenov (1972)	Zap. Vses. Mineral. Ob. 102, 456	KNaAl <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> •2H <sub>2</sub> O; appears to be indistinguishable from UM1967-09-SiO:AlHKNa	c
UM1972-/-SiO:FeTi	*Semenov (1972)	Zap. Vses. Mineral. Ob. 102, 456	Inadequate data	b
UM1972-/-SiO:HNaZr	Semenov (1972)	Khomyakov (1995)	Formula given as H <sub>3</sub> NaZrSi <sub>6</sub> O <sub>16</sub> •nH <sub>2</sub> O; said by Khomyakov (1995) to be the same as UKI-1969-(SiO:HNaZr)	c
UM1972-/-Te:AgPd	*Izv. Akad. Nauk SSSR, Ser. Geol. #11, 85	CIM Sp. Vol. 23, 177	Later described under the name telargpalite: Zap. Vses. Mineral. Ob. 103 (1974), 595; (CIM Sp. Vol. 23, 184)	a
UM1972-/-VO:CuPPb	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 16, 53	Mineral. Abst. 24, 73-1946	The mineral is probably mottramite	c
UM1973-/-As:NiPd	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Later described under the name majakite: Zap. Vses. Mineral. Ob. 105 (1976), 698; (see also UM1967-/-As:NiPd)	a
UM1973-/-As:PbPd	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Later described under the name borishanskiite: Zap. Vses. Mineral. Ob. 104 (1975), 57	a
UM1973-/-Bi:Pd	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	(Pd) <sub>1±x</sub> Bi; later described under the name sobolevskite: Zap. Vses. Mineral. Ob. 104 (1975), 568	a
UM1973-/-CO:BaFREE	*Geochimica 1, 31	Am. Mineral. 60, 738	Later described under the name cebaite-(Ce): Sci. Geol. Sinica 4 (1975), 409	a
UM1973-/-E:AuCu	*Geol. Rudn. Mest. 15, 32	Zap. Vses. Mineral. Ob. 104, 617	Semiquantitative analysis gives Cu <sub>3</sub> Au <sub>2</sub> -CuAu; possibly = cuproauride or tetraauricupride	b,c
UM1973-/-E:AuCuPd	*Geol. Rudn. Mest. 15, 32	Zap. Vses. Mineral. Ob. 104, 617	A Pd-bearing auricupride later given the unnecessary name rozhkovite: Trudy Mineral. Muz. Akad. Nauk SSSR 24, 93	c
UM1973-/-E:CuPdPtSn	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Later described under the name taimyrite: Zap. Vses. Mineral. Ob. 111 (1982), 78	a
UM1973-/-E:PdSn	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Later described under the name paolovite: Geol. Rudn. Mest. 16 (1974), 98	a
UM1973-/-E:PtPdSn[1]	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Pt <sub>7</sub> Pd <sub>4.5</sub> Sn <sub>4</sub> - the mineral is not distinguishable from rustenburgite	c
UM1973-/-E:PtPdSn[2]	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Disordered form of (Pt,Pd) <sub>3</sub> Sn, a mineral later described under the name rustenburgite	a
UM1973-/-E:PtPdSn[3]	*Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179	Disordered form of (Pd,Pt) <sub>3</sub> Sn, a mineral later described under the name atokite; same as UM1971-/-E:PbPdPtSn	a
UM1973-/-O:Ti	Geochim. Cosmochim. Acta 37, 761		Main component TiO <sub>2</sub> ; minor Al, Mg, Te, P (or Zr); may be armalcolite	b,c
UM1973-/-S:AgBiPb	*Sci. Rept. Tohoku Univ., Ser.3, 12, 69	Am. Mineral. 59, 1139	Probably same as UM1972-09-S:AgBiPbSb; similarities to vikingite	c
UM1973-/-S:BiPb	*Sci. Rept. Tohoku Univ., Ser.3, 12, 69	Am. Mineral. 59, 1139	Appears to be bursaite	c
UM1973-/-S:CrFeTi	Meteoritics 8, 48	Am. Mineral. 58, 1115	Later described under the name heideite: Am. Mineral. 59 (1974), 463	a
UM1973-/-S:CuFeSnZn	Can. Mineral. 12, 46		Later described under the name petrukite: Can. Mineral. 27 (1989), 673	a
UM1973-/-S:CuMo	*Spraw. Pos. Komis. Nauk PAN Krakowie 16, 248	Zap. Vses. Mineral. Ob. 104, 618	X-ray powder diffraction pattern similar to that of molybdenite; may be a mixture	d
UM1973-/-SO:FeNi	*Smithsonian Contr. Earth Sci. 10, 1	Nature 306, 354	Inadequate data	b
UM1973-/-SiO:	Mineral. Record 4, 205		X-ray powder diffraction pattern, but no compositional data; may be a zeolite	b
UM1973-/-SiO:CaZr	Can. Mineral. 12, 211	Am. Mineral. 61, 178	Later described under the name gittinsite: Can. Mineral. 18 (1980), 201	a
UM1973-/-SiO:HSrTi	*Mineral. J. 7, 298	Am. Mineral. 59, 1140	Later described under the name ohmilite: Mineral. J. (Japan) 7 (1973), 298	a
UM1973-/-SiO:KZr	*Trudy Mineral. Muz. Akad. Nauk SSSR 22, 215	Am. Mineral. 59, 1140	Later described under the name khibinskite: Zap. Vses. Mineral. Ob. 103 (1974), 110; same as UM1971-/-SiO:KZr	a
UM1973-/-SiO:NaZr	*Trudy Mineral. Muz. Akad. Nauk SSSR 22, 215	Am. Mineral. 59, 1140	Later described under the name parakeldyshite: Can. Mineral. 15 (1977), 102	a

<b>UM1973-II-Te:AgPbPd</b>	Internat. Geol. Rev. 15, 1284		(Pd,Ag) <sub>3</sub> (Ag,Pb)(Te,Se); same as UM1972-16-Te:AgPbPd	c
<b>UM1973-II-Te:BiPdPt</b>	*Geochimica 1, 23	Zap. Vses. Mineral. Ob. 106, 86	(Pd,Pt)(Te,Bi) <sub>2</sub> ; apparently merenskyite	c
<b>UM1973-II-Te:BiPdSb</b>	Can. Mineral. 11, 903		Inadequate data; could be Sb- and Bi-bearing kotulskite	b,c
<b>UM1973-II-VO:Bi</b>	*Contr. Mineral. Petrol. 41, 325	Mineral. Abst. 25, 74-507	Later described under the name clinobisvanite: Mineral. Mag. 39 (1973), 847	a
<b>UM1974-II-E:AuCu</b>	Neues Jb. Mineral. Mh. (1974), 1	Eur. J. Mineral. 3, 451	CuAu <sub>2.6</sub> ; not distinct from Cu-bearing gold	c
<b>UM1974-II-O:TiYZn</b>	Am. Mineral. 59, 172.		Mineral "Y"; later shown to be a Zn,REEY-bearing variety of senaite: Mineral. Mag. 48 (1984), 97	c
<b>UM1974-II-S:BiCuPb[1]</b>	*Kolkovski & Borodaev (1974), 419	Am. Mineral. 63, 427	Appears to be identical to friedrichite described later (see Can. Mineral. 16, 127)	c
<b>UM1974-II-S:BiCuPb[2]</b>	*Kolkovski & Borodaev (1974), 419	Am. Mineral. 63, 427	Appears to be identical to the previously described mineral lindströmite	c
<b>UM1974-II-S:CuFeNi[1]</b>	*Geol. Rudn. Mest. 16 (5), 36	Zap. Vses. Mineral. Ob. 104, 617	Cu <sub>16</sub> (Fe,Ni) <sub>19</sub> S <sub>32</sub> ; later described under the name putoranite: Zap. Vses. Mineral. Ob. 109 (1980), 335	a
<b>UM1974-II-S:CuFeNi[2]</b>	*Geol. Rudn. Mest. 16 (5), 36	Zap. Vses. Mineral. Ob. 104, 617	Cu <sub>17</sub> (Fe,Ni) <sub>17</sub> S <sub>32</sub> ; later described under the name putoranite: Zap. Vses. Mineral. Ob. 109 (1980), 335	a
<b>UM1974-II-Sb:Pd</b>	*Geochimica 3, 169	Am. Mineral. 61, 182	Pd <sub>2</sub> Sb; later described under the name naldrettite: Mineral. Mag. 69 (2005), 89	a
<b>UM1974-II-SiO:BaFeHNaSrTi</b>	Mineral. J. (Japan) 7, 395		Appears to be same as bario-orthojoaquinite described later (see Am. Mineral. 67, 809)	a,c
<b>UM1974-II-SiO:BaSrV</b>	*Mineral. J. 7, 421	Am. Mineral. 61, 178	(Ba,Sr)VS <sub>2</sub> O <sub>7</sub> ; the Ba-analogue of haradaite; later described under the name suzukiite: Mineral. J. 11 (1982), 15	a
<b>UM1974-II-SiO:U</b>	Am. Mineral. 59, 166		Later described under the name uranosilite: Neues Jb. Mineral. Mh. (1983), 259	a
<b>UM1974-II-Te:BiPd</b>	Econ. Geol. 69, 263	Am. Mineral. 61, 179	Analysis is from a 2-phase intergrowth	d
<b>UM1974-II-Te:NiSb</b>	*Geochimica 3, 169	Am. Mineral. 61, 182	Ni <sub>2</sub> SbTe <sub>2</sub> ; later described under the name vavřinite: Can. Mineral. 45 (2007), 1213. Formerly coded as UM1974-22-Te:NiSb	c
<b>UM1974-II-Te:Pd</b>	*Geochimica 3, 169	Am. Mineral. 61, 182	PdTe; appears to be kotulskite	c
<b>UM1975-II-As:CuPd</b>	Can. Mineral. 13, 321	Am. Mineral. 62, 1061	Inadequate data	b
<b>UM1975-II-As:NiPd[1]</b>	Can. Mineral. 13, 321	Am. Mineral. 62, 1261	Later described under the name menshikovite: Mineral. Mag. 64 (2000), 847	a
<b>UM1975-II-As:NiPd[2]</b>	*Internat. Geol. Rev. 17, 6	Am. Mineral. 61, 179	Approximate formula: (Ni,Pd) <sub>7</sub> As <sub>3</sub> ; a second report of UM1973-01-As:NiPd	c
<b>UM1975-II-As:RuS</b>	Minerals Sci. Eng. 7, 189		Ru(As,S) <sub>2</sub> ; indaequate data; perhaps the same as anduoite or possibly ruarsite	b,c
<b>UM1975-II-AsSO:Cu</b>	Aufschluss 26, 369	Am. Mineral. 62, 175	Same as UM1972-03-AsOSO:Cu	c
<b>UM1975-II-Bi:PdPtSb</b>	Mineralium Deposita 10, 71		(Pt,Pd)(Bi,Sb,As); same as UM1974-02-Bi:AsPdPtSb	c
<b>UM1975-II-CO:CuZn</b>	Aufschluss 26, 369	Am. Mineral. 62, 175	Later described under the name claraite: Chem. Erde 41 (1982), 97	a
<b>UM1975-II-E:CuFePdPt</b>	*Dokl. Earth Sci. 224, 97	CIM Sp. Vol. 23, 177	(Cu,Pd,Fe,Pt); 3.2 wt.% Te may be extraneous (CIM Sp. Vol. 23, 186); indistinguishable from skaergaardite described in 2004: Mineral. Mag. 68, 615	c
<b>UM1975-II-E:HgPd</b>	*Dokl. Earth Sci. 224, 97	CIM Sp. Vol. 23, 177	Hg <sub>3</sub> Pd <sub>2</sub> (?); low analytical total and uncertain stoichiometry (CIM Sp. Vol. 23, 182)	b
<b>UM1975-II-E:PbPdPtSn</b>	*Internat. Geol. Rev. 17, 6	Am. Mineral. 61, 179	Appears to be UM1973-13-E:PbPdPtSn; second report of same mineral	c
<b>UM1975-II-S:AgPbSb</b>	*Norsk Geol. Tidsskr. 55, 185	Am. Mineral. 61, 1055	Indistinguishable from zoubekite on available data	c
<b>UM1975-II-S:CuFe</b>	*Neues Jb. Mineral. Abh. 125, 107	Mineral. Abst. 27, 76-1500	(Cu,Fe) <sub>2</sub> S <sub>3</sub> ; no data	b
<b>UM1975-II-S:CuIrRh</b>	*Dokl. Akad. Nauk SSSR 225, 1408	Am. Mineral. 62, 175	Later described under the name kashinite: Zap. Vses. Mineral. Ob. 105 (1985), 698	a
<b>UM1975-II-S:IrRh</b>	*Dokl. Akad. Nauk SSSR 225, 1408	Am. Mineral. 62, 175	(Rh,Ir) <sub>2</sub> S <sub>3</sub> ; later described under the name bowieite: Can. Mineral. 22 (1984), 543	a
<b>UM1975-II-S:NiSb</b>	Minerals Sci. Eng. 7, 189		Ni <sub>9</sub> Sb <sub>2</sub> S <sub>8</sub> ; later described under the name tucekite: Mineral. Mag. 42 (1978), 278	a
<b>UM1975-II-S:Rh</b>	Minerals Sci. Eng. 7, 189		RhS <sub>2</sub> ; indaequate data; perhaps the same as UM1978-14-S:CuFePtRh	b,c
<b>UM1975-II-Sb:Pd</b>	Can. Mineral. 13, 321	Am. Mineral. 62, 1061	Pd <sub>8</sub> Sb <sub>3</sub> ; indistinguishable from stibiopalladinite or merteite-II on available data	c
<b>UM1975-II-SiO:AlFeHMgNi</b>	Mineral. Mag. 40, 200	ICDD 29-0862	Probably Fe- and Ni-bearing clinocllore	c
<b>UM1975-II-WO:Cu</b>	Aufschluss 26, 369	Am. Mineral. 62, 175	Some, but not all, diffraction lines fit well with cuprotungstite	b
<b>UM1976-II-As:CuFePt</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-As:PdSn</b>	Econ. Geol. 71, 249	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-AsO:FeHS</b>	Neues Jb. Mineral. Mh. (1976), 426	Zap. Vses. Mineral. Ob. 107, 343	Later described under the name zykaite: Neues Jb. Mineral. Mh. (1978), 134	a
<b>UM1976-II-BO:HMg</b>	*Mitteilungsbl. Landesmuseums "Joanneum", Abt. Mineral. 44, 35	Am. Mineral. 62, 1261	Later described under the name admontite: Tscherm. Mineral. Petrog. Mitt. 26 (1981), 69	a
<b>UM1976-II-Bi:PdSbTe</b>	Econ. Geol. 71, 1451	Am. Mineral. 62, 598	Pd(Bi,Sb,Te); probably sobolevskite with partial ss towards sudburyite and kotulskite; formerly coded as UM1976-08-Bi:PdSbTe	c
<b>UM1976-II-CO:LaNd</b>	Geol. Surv. Canada, Pap. 76-1B, 353	Zap. Vses. Mineral. Ob. 107, 342	Later named lanthanite-(Nd): Geol. Surv. Canada, Pap. 80-1C (1980), 141	a
<b>UM1976-II-E:CuPdPtSn</b>	*Zap. Vses. Mineral. Ob. 105, 206	Mineral. Abst. 28, 77-890	(Pd <sub>2.09</sub> Pt <sub>0.25</sub> Cu <sub>0.72</sub> )Sn <sub>0.94</sub> ; appears to be same as UM1970-06-E:CuPdPtSn	c
<b>UM1976-II-E:FePdPtSn</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-E:HgPd</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b

<b>UM1976-II-E: PdSbSn</b>	*Trudy TsNIGRI 122, 107	Zap. Vses. Mineral. Ob. 107, 340	Pdz(Sn,Sb); probably Sb-bearing paolovite; formerly coded as UM1976-27-Sn: PdSb	c
<b>UM1976-II-E: PtRhRu</b>	Econ. Geol. 71, 1399	Mineral. Petrol. 60, 185	Dubiously identified on the basis of a list of constituent elements	b
<b>UM1976-II-NbO: REE</b>	*Geol. Geofiz. (1976) (4), 141	Am. Mineral. 62, 397	REENbO <sub>4</sub> ; appears to be beta-fergusonite-(Nd)	c
<b>UM1976-II-S: AgAsCuFe</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative compositional data only	b
<b>UM1976-II-S: AsCoCu</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative compositional plus reflectance data	b
<b>UM1976-II-S: AsCoNi</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative compositional plus reflectance data	b
<b>UM1976-II-S: AsFeNi</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	(Ni,Fe)AsS; intermediate between gersdorffite and arsenopyrite	b
<b>UM1976-II-S: AsPdSbSn</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-S: BiPtSn</b>	Econ. Geol. 71, 1244	Mineral. Petrol. 60, 185	Only qualitative compositional data	b
<b>UM1976-II-S: Co</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	CoS; quantitative microprobe analysis and reflectivity data; probably jaipurite	c
<b>UM1976-II-S: CoCuFeNi</b>	Econ. Geol. 71, 1429	Am. Mineral. 62, 596	(Cu,Ni,Fe,Co) <sub>3</sub> S <sub>4</sub> ; only qualitative compositional data; probably fletcherite	b,c
<b>UM1976-II-S: CoCuNiPtRh</b>	Econ. Geol. 71, 1244	Mineral. Petrol. 60, 185	Only qualitative compositional data	b
<b>UM1976-II-S: CuInSe</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative data only; in myrmekitic intergrowth with bornite	b
<b>UM1976-II-S: CuNiPtRh</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-S: CuPtRh</b>	Econ. Geol. 71, 1244	Mineral. Petrol. 60, 185	Only qualitative compositional data	b
<b>UM1976-II-S: CuSeSnW</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative compositional plus reflectance data	b
<b>UM1976-II-S: PtSn</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-SO: FeHN</b>	Am. Mineral. 61, 1		NH <sub>4</sub> Fe(SO <sub>4</sub> ) <sub>2</sub> ·12H <sub>2</sub> O; later described under the name loncreekite: Annal. Geol. Surv. S. Africa 17 (1983), 29	a
<b>UM1976-II-Sb: AsPd</b>	Econ. Geol. 71, 249	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-Sb: BiPdTe</b>	Econ. Geol. 71, 1451	Am. Mineral. 62, 598	Probably identical to UM1976-23-Sb: BiPdTe	c
<b>UM1976-II-Se: AgAu</b>	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Qualitative compositional data only; perhaps fischesserite	b,c
<b>UM1976-II-SiO: CaKTI</b>	*Mineral. J. 8, 110	Zap. Vses. Mineral. Ob. 109, 82	Qualitative chemistry; inadequate data	b
<b>UM1976-II-SiO: H</b>	*Z. Krist. 143, 156	Mineral. Abst. 28, 77-2190	SiO <sub>2</sub> ·nH <sub>2</sub> O; designated "SiO <sub>2</sub> -G"; later described under the name mogánite: Neues Jb. Mineral. Abh. 149 (1978), 325	a
<b>UM1976-II-SiO: HNaZr</b>	*Trudy Mineral. Muz. Akad. Nauk SSSR 25, 90	Khomyakov (1995)	(Na,Ca) <sub>2</sub> Zr <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (OH,O) <sub>3</sub> H <sub>2</sub> O; mineral "M34" of Khomyakov (1995); same as UM1975-22-SiO: HNaZr	c
<b>UM1976-II-SiO: Th</b>	Mineral. Mag. 40, 737		Probably altered thorite	b
<b>UM1976-II-Te: AgBiPb</b>	*Geol. Rudn. Mest. (1976) 111	Am. Mineral. 62, 597	Later described under the name rucklidgeite: Zap. Vses. Mineral. Ob. 106 (1977), 62	a
<b>UM1976-II-Te: AgPd</b>	Econ. Geol. 71, 1159	Am. Mineral. 62, 596	Later described under the name sopcheite: Zap. Vses. Mineral. Ob. 111 (1982), 114	a
<b>UM1976-II-Te: BiFePd</b>	Econ. Geol. 71, 1377	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1976-II-Te: BiPbS</b>	*Geol. Rudn. Mest. (1976) 111	Am. Mineral. 62, 597	Mineral "D"; later described under the name aleksite: Zap. Vses. Mineral. Ob. 107 (1978), 315	a
<b>UM1976-II-Te: BiPd</b>	Econ. Geol. 71, 1429	Mineral. Petrol. 60, 185	"Phase D"; of indeterminative stoichiometry	b
<b>UM1976-II-Te: HgPd</b>	Econ. Geol. 71, 1244	Mineral. Petrol. 60, 185	(Pd,Hg)Te; mineral "M"; apparently the same as mineral "A" - UM1966-II-Te: HgPd	c
<b>UM1977-II-E: CuFeNiPtSb</b>	Can. Mineral. 15, 380	CIM Sp. v.30, p.177	"Alloy 1"; probably a Ni- & Cu-bearing variety of tetraferroplatinum	c
<b>UM1977-II-E: FePt</b>	Can. Mineral. 15, 380	Mineral. Petrol. 60, 185	Grain nos. 9 & 10; probably Fe-bearing platinum	c
<b>UM1977-II-O: AlCa</b>	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Later described under the name grossite: Eur. J. Mineral. 6 (1994), 591	a
<b>UM1977-II-O: BaKTI</b>	*Austral. J. Chem. 30, 1195	Am. Mineral. 63, 795	Later described under the name jeppeite: Mineral. Mag. 48 (1984), 263	a
<b>UM1977-II-PO: AIHU[1]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate: mineral "A"; later described under the name phuralumite: Bull. Minéral. 102 (1979), 333	c
<b>UM1977-II-PO: AIHU[2]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate; mineral "B"; later described under the name upalite: Bull. Minéral. 102 (1979), 333	c
<b>UM1977-II-PO: AIHU[3]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate; minerals "C" & "D"; later described under the name mundite: Bull. Minéral. 104 (1981), 669	c
<b>UM1977-II-PO: AIHU[4]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate; mineral "E"; later named ranunculite: Mineral. Mag. 43 (1979), 321	c
<b>UM1977-II-PO: AIHU[5]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate; mineral "F"; later identified as furongite: Schweiz. Mineral. Petrog. Mitt 65 (1985), 1	c
<b>UM1977-II-PO: AIHU[6]</b>	Bull. Soc. belge Géol. 86, 183		A hydrated U,Al-phosphate; mineral "G"; later described under the name moreauite: Bull. Minéral. 108 (1985), 9	c
<b>UM1977-II-PO: CrFeMg</b>	Mineral. Mag. 41, 91		Analysis of possibly heterogenous decomposition products, with very low total	b,d

<b>UM1977-II-SO:AIHN</b>	Am. Mineral. 62, 316		Product of a burning coal seam; later described under the name godovikovite: Zap. Vses. Mineral. Ob. 117 (1988), 211	a
<b>UM1977-II-SO:CaHU</b>	Aufschluss 28, 177		Only qualitative compositional data; X-ray pattern not distinct from rabejacite	c
<b>UM1977-II-SiO:AlCaHKNa</b>	Sci. Repts. Niigata Univ. Ser. E., Geol. No.4, 49	Am. Mineral. 64, 244	A Na-analogue of dachiardite later named sodium dachiardite: Sci. Rep. Niigata Univ. Ser. E Geol. 4 (1977), 49; <b>subsequently renamed dachiardite-Na</b>	a
<b>UM1977-II-SiO:BaFeMgTi</b>	*Geochem. J. 11, 137	Am. Mineral. 63, 795	Inadequate data; >40% impurities may be included in analysis	b,d
<b>UM1977-II-SiO:HNazr</b>	Can. Mineral. 15, 102	Khomyakov (1995)	(Na,Ca) <sub>2</sub> Zr <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (OH,O) <sub>3</sub> H <sub>2</sub> O; mineral "M34" of Khomyakov (1995); same as UM1975-22-SiO:HNazr	c
<b>UM1978-II-CH:O</b>	*Mineral. Slov. 10, 539	Mineral. Abst. 30, 79-4068	Mineral "X"; an inadequately characterised organic mineral	b
<b>UM1978-II-CO:BaCa</b>	Geol. Surv. Canada Pap. 78-1C, 49	Am. Mineral. 64, 1332	Later described under the name paralstonite: Geol. Surv. Canada Pap. 79-1C (1978), 99	a
<b>UM1978-II-CO:CuHSb</b>	Grønlands Geol. Undersøgelse Bull. No.126, 1		probably a mixture	d
<b>UM1978-II-OH:CuFeSnZn</b>	*Novye Dannye Mineral. 27, 89	Am. Mineral. 65, 1069	Later described under the name mushistonite: Zap. Vses. Mineral. Ob. 113 (1984), 612	a
<b>UM1978-II-E:FePdPt</b>	*Genkin (1968)	CIM Sp. Vol. 23, 177	(Pt,Pd)Fe; later described under the name tetraferroplatinum: Can. Mineral. 13 (1975), 117	a
<b>UM1978-II-E:IrOsPtRu[1]</b>	Can. Mineral. 16, 641	CIM Sp. Vol. 23, 177	(Ru,Os,Ir,Pt); not distinguishable from UM1978-06-E:IrOsPtRu; (CIM Sp. Vol. 23, 190); perhaps simply impure ruthenium	c
<b>UM1978-II-E:IrOsPtRu[2]</b>	Can. Mineral. 16, 641	CIM Sp. Vol. 23, 177	(Ir,Pt,Os,Ru); (CIM Sp. Vol. 23, 191); not distinguishable from UM1978-07-E:IrOsPtRu; perhaps simply impure iridium	c
<b>UM1978-II-E:IrOsPtRu[3]</b>	Can. Mineral. 16, 641	Mineral. Petrol. 60, 185	(Os,Ir,Pt,Ru); probably impure osmium	c
<b>UM1978-II-O:CrFeMgTi</b>	Am. Mineral. 63, 37		Probably loweringite or possibly a Cr- and Fe-bearing pseudobrookite	c
<b>UM1978-II-PO:AlH</b>	Rocks & Minerals 53, 214		Qualitative chemistry; X-ray powder diffraction pattern similar to planerite	c
<b>UM1978-II-PO:Fe</b>	Mineral. Mag. 42, 137		Mineral "B"; inadequate data but X-ray diffraction pattern similar to kidwellite	b,c
<b>UM1978-II-S:BiCuPbSe</b>	*Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	Mineral "S"; later described under the name soucekite: Neues Jb. Mineral. Mh. (1979), 289	a
<b>UM1978-II-S:BiCuPbSeTe[1]</b>	*Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	(Bi,Pb,Cu) <sub>4</sub> (S,Se,Te) <sub>5</sub> ; no data	b
<b>UM1978-II-S:BiCuPbSeTe[2]</b>	*Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	(Bi,Pb,Cu) <sub>6</sub> (S,Se,Te) <sub>5</sub> ; no data	b
<b>UM1978-II-S:BiTe[1]</b>	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Bi <sub>2</sub> TeS; apparently identical to ingodite, described in 1981	c,a
<b>UM1978-II-S:BiTe[2]</b>	*Geol. Razved. (1978) (10), 91	Zap. Vses. Mineral. Ob. 110, 239	Bi <sub>2</sub> TeS; later named ingodite	a
<b>UM1978-II-S:BiTe[3]</b>	*Geol. Razved. (1978) (10), 91	Zap. Vses. Mineral. Ob. 110, 239	Bi <sub>3</sub> Te <sub>2</sub> S; later named sulphotsumite	a
<b>UM1978-II-S:CuFePdSnTe</b>	*Dokl. Akad. Nauk SSSR, 243, 1265	Am. Mineral. 66, 1102	Later described under the name oulankaite: Eur. J. Mineral. 8 (1996), 311	a
<b>UM1978-II-S:CuHg</b>	*Trudy Inst. Geol. Geofiz. SO Akad. Nauk SSSR 404, 19	Zap. Vses. Mineral. Ob. 110, 238	Cu <sub>6</sub> HgS <sub>4</sub> ; apparently the same bayankhanite, described in 1984 ( <b>which, however may be a mixture of 2 or more components</b> )	c
<b>UM1978-II-S:CuZn</b>	Contr. Mineral. Petrol. 68, 85		Qualitative chemistry; inadequate data	b
<b>UM1978-II-S:FeHNa</b>	Earth Planet. Sci. Lett. 40,107	Am. Mineral. 64, 241	NaFeS <sub>2</sub> (OH) but no other data; Later described under the name erdite: Am. Mineral. 65 (1980), 509	a
<b>UM1978-II-Se:BiCuPbSte</b>	Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	(Pb,Cu)Bi(Se,Te,S) <sub>2</sub> with Te=16-21%; no other data	b
<b>UM1978-II-Se:BiPbSte[1]</b>	Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	(Pb,Bi) <sub>4</sub> (Se,Te,S) <sub>3</sub> ; no other data	b
<b>UM1978-II-Se:BiPbSte[2]</b>	Neues Jb. Mineral. Mh. (1978), 9	Am. Mineral. 63, 1283	(Pb,Bi) <sub>7</sub> (Se,S,Te) <sub>6</sub> ; no other data	b
<b>UM1978-II-SiO:AlFeHMgZn</b>	Amdel Bull. 23, 25	Am. Mineral. 65, 1070	Later described under the name baileychloro: Am. Mineral. 73 (1988), 135	a
<b>UM1978-II-SiO:CaFeMg</b>	*Litol. Polezn. Iskop. (1978) (3), 3	Zap. Vses. Mineral. Ob. 110, 241	Qualitative chemistry; inadequate data	b
<b>UM1978-II-SiO:CaHMn</b>	Geol. Soc. Am. Abst. with Programs, 10, 465	Am. Mineral. 64, 244	Later described under the name santaclaraito: Am. Mineral. 69 (1984), 200	a
<b>UM1978-II-SiO:PbSZn</b>	*Fortsch. Mineral. 56, 59	Zap. Vses. Mineral. Ob. 111, 708	Pb <sub>4</sub> Zn <sub>2</sub> (SO <sub>4</sub> )(SiO <sub>4</sub> )(Si <sub>2</sub> O <sub>7</sub> ); later described as queitite: Neues Jb. Mineral. Mh. (1979), 203	a
<b>UM1978-II-VO:Bi</b>	*Fortsch. Mineral. 56, 18	Zap. Vses. Mineral. Ob. 111, 707	BiVO <sub>4</sub> ; later named dreyerite: Neues Jb. Mineral. Mh. (1981), 151	a
<b>UM1979-II[1]</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK24"; subsequently shown to be a mixture of götzenite and another phase: Mineral. Record 21 (1990), 363	d
<b>UM1979-II[2]</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK26"; subsequently shown to be a mixture of parisite and albite: Mineral. Record 21 (1990), 363	d
<b>UM1979-II[3]</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK27"; subsequently recognised as thornasite: Can. Mineral. 25 (1987), 181	c
<b>UM1979-II[4]</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK31"; subsequently recognised as yofortierite: Mineral. Record 21 (1990), 363	c
<b>UM1979-II[5]</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK34"; subsequently recognised as a member of the rhabdophane group: Mineral. Record 21 (1990), 363	c

UM1979-/[6]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK35"; subsequently recognised as a mixture of chabazite and another phase: Mineral. Record 21 (1990), 363	d
UM1979-/[7]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK36"; subsequently recognised as miserite: Mineral. Record 21 (1990), 363	c
UM1979-/[8]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK39"; subsequently recognised as tadzhikite-(Ce), a name not formally approved by the IMA: Mineral. Record 21 (1990), 363	c
UM1979-/[9]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK40"; subsequently recognised as carbocearnite: Mineral. Record 21 (1990), 363	c
UM1979-/[10]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK41"; subsequently recognised as penkviksite: Mineral. Record 21 (1990), 363	c
UM1979-/[11]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK42"; subsequently named petarsite: Can. Mineral. 18 (1980), 497	a
UM1979-/[12]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK43"; subsequently described under the name franconite: Can. Mineral. 22 (1984), 239	a
UM1979-/[13]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK44"; subsequently described under the name daqingshanite-(Ce): Geochem. 2 (1983), 180	a
UM1979-/[14]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK45"; subsequently described under the name doyleite: Can. Mineral. 23 (1985), 21	a
UM1979-/[15]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK46"; subsequently identified as murmanite; then as epistolite: Mineral. Record 21 (1990), 363	c
UM1979-/[16]	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK47"; subsequently found to be a chabazite + natrolite mixture: Mineral. Record 21 (1990), 363	d
UM1979-//AsO:Al	Aufschluss 30, 213	Am. Mineral. 65, 210	Later described under the name bulachite: Aufschluss 34 (1983), 445	a
UM1979-//AsO:AlBaCaCuFe	Aufschluss 30, 213	Am. Mineral. 65, 210	Later described under the name arsenogorceixite: Aufschluss, 44 (1993), 250	a
UM1979-//AsO:Mn	Mineral. Record 10, 215		Qualitative analysis only; minor Cu and B	b
UM1979-//AsSO:Cu	Aufschluss 30, 213		Same as UM1972-03-AsOSO:Cu	c
UM1979-//BiO:	Aufschluss 30, 213	Am. Mineral. 65, 209	Minor amounts of As, Ca, Cu, Fe & Sb reported; later described under the name sphaerobismoite: Aufschluss 46 (1995), 245	a
UM1979-//Bi:AsPdTe	CIM Sp. Vol.30, 175		Pd(Bi,Te,As); probably a Te- and As-bearing sobolevskite	b,c
UM1979-//CO:AlCaHY	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK32"; hydrous carbonate of Ca-Y-Al; later named micheelsenite: Neues Jb. Mineral Mh (2001), 337	a
UM1979-//CO:BaCaHNaUY	Mineral. Record 10, 99	Mineral. Record 21, 363	Recognised as mckelveyite before publication of Mont St. Hilaire unnamed mineral code "UK30": Mineral. Record 10 (1979), 99	c
UM1979-//CO:BaCaKNaY	Mineral. Record 10, 99	Mineral. Record 21, 363	Recognised as ewaldite before publication of Mont St. Hilaire unnamed mineral code "UK37": Can. Mineral. 16 (1978), 335	c
UM1979-//CO:CaHNaSrY	Mineral. Record 10, 99	Mineral. Record 21, 363	Named donnayite before publication of Mont St. Hilaire unnamed mineral code "UK33": Can. Mineral. 16 (1978), 335	c
UM1979-//I:Hg	*Dopov. Nat. Akad. Nauk Ukrainy, Ser. B, 9, 701	Am. Mineral. 66, 1102	Known synthetically (Nat. Bur. Stds. Mono. 25, 7) and apparently identical to coccinite (Am. Mineral. 83 (1998), 911)	c
UM1979-//PO:HNa[1]	*Dokl. Akad. Nauk SSSR 248, 1207	Am. Mineral. 65, 1070	Later described under the name nahpoite: Can. Mineral. 19 (1981), 373	a
UM1979-//PO:HNa[2]	*Dokl. Akad. Nauk SSSR 248, 1207	Am. Mineral. 65, 1070	Later described under the name dorfmanite: Zap. Vses. Mineral. Ob. 109 (1980), 211	a
UM1979-//S:AgBiCuPb	*Medd. Grønland, Greenland Geoscience 2, 1	Am. Mineral. 66, 1280	Mineral "D"; inadequate compositional data only but probably berryite (known from same locality)	b,c
UM1979-//S:AgTe	*Medd. Grønland, Greenland Geoscience 2, 1	Am. Mineral. 66, 1280	Mineral "B"; later described under the name cervelleite: Eur. J. Mineral. 1, (1989), 371	a
UM1979-//S:AsPbSbTI	*Z. Krist. 150, 85	Nowacki <i>et al.</i> (1982), 689	Tl8Pb4Sb21As19S68; not distinct from chabournéite	c
UM1979-//S:CuFe[1]	*Izv. Akad. Nauk SSSR, Ser. Geol. (1979) (6), 152	Zap. Vses. Mineral. Ob. 111, 242	Qualitative chemistry, Cu:Fe = 2:1; inadequate data; may be the same as UM1983-12-S:CuFe	b,c
UM1979-//S:CuFe[2]	Am. Mineral. 64, 776		A Cu-Fe sulphide; inadequate data; perhaps same as UM1979-//S:CuFe[1]	b,c
UM1979-//S:CuFeSnZn	Can. Mineral. 17, 125		Cu2(Fe,Zn)SnS4; later named ferrokésterite: Can. Mineral. 27 (1989), 673	a
UM1979-//S:FeMnZn	Meteoritics 14, 561		(Fe,Zn,Mn)S; cf. UM1972-//S:FeMnS; later described under the name rudashevskiyite: Am. Mineral. 93 (2008), 902	a
UM1979-//Se:Ag	*Zap. Uzb. Otd. VMO 32, 26	Zap. Vses. Mineral. Ob. 111, 707	Qualitative composition only	b
UM1979-//SiO:AlCaFeHKMgMnNaTi	Mineral. Record 10, 99	Mineral. Record 21, 363	(Na,Ca,K)0.35-0.45(Fe <sup>2+</sup> ,Mg,Al,Mn,Ti)3.10-3.23(Si,Al)4O10•nH2O;"UK29"; later identified as nontronite: Rocks & Minerals 70 (1995), 90. Formerly coded as UM1979-20-SiO:AlCaFeHKMgMnNaTi	c
UM1979-//SiO:AlCaHKNaTi	Mineral. Record 10, 99	Mineral. Record 21, 363	Recognised as vinogradovite before publication of Mont St. Hilaire unnamed mineral code "UK28": Mineral. Record 10 (1979), 99	c
UM1979-//SiO:CaCeLa	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK22"; subsequently recognised as britholite-(Ce): Mineral. Record 21 (1990), 363	c
UM1979-//SiO:CaHK	*Rend. Soc. Ital. Mineral. Petrol. 35, 847	Am. Mineral. 66, 220	K2Ca4Si16O36(OH)2•10.5H2O; described as a K-analogue of macdonaldite but later recognised as rhodesite	c
UM1979-//SiO:CaZr	Geol. Surv. Canada Pap. 79-1A, 391	Am. Mineral. 64, 1332	Later described under the name gittinsite: Can. Mineral. 18 (1980), 201	a
UM1979-//SiO:HMn	Mineral. Record 10, 99	Mineral. Record 21, 363	Named yofortierite before publication of Mont St. Hilaire unnamed mineral code "UK25": Can. Mineral. 13 (1975), 68	c

<b>UM1979-//SiO:HMnNaV</b>	Rend. Soc. Ital. Mineral. Petrol. 35, 151	Zap. Vses. Mineral. Ob. 111, 243	Na <sub>2</sub> Mn <sub>10</sub> (Si <sub>11</sub> V)O <sub>34</sub> (OH) <sub>4</sub> ; later named saneroite: Neues Jb. Mineral. Abh. 138 (1980), 333	a
<b>UM1979-//SiO:HNazr</b>	Mineral. Record 10, 99	Mineral. Record 21, 363	Named gaidonnayite before publication of Mont St. Hilaire unnamed mineral code "UK23": Can. Mineral. 12 (1974), 316	c
<b>UM1979-//SiO:Mn</b>	*Rend. Soc. Ital. Mineral. Petrol. 35, 145	Am. Mineral. 65, 812	Appears to be tiragalloite	c
<b>UM1979-//SiO:NaNbPTi</b>	Neues Jb. Mineral. Abh. 137, 42	Zap. Vses. Mineral. Ob. 111, 243	Na <sub>8</sub> (Nb,Ti) <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> (SiO <sub>4</sub> ) <sub>4</sub> ; not distinct from Vuonnemite on the basis of data reported	c
<b>UM1980-//AsO:CuMgNaZn</b>	*Fortsch. Mineral. (1980) Beihefte 58, 68	Am. Mineral. 66, 218	Later described under the name johillerite: Tscherm. Mineral. Petrogr. Mitt. 29 (1982), 169	a
<b>UM1980-//BO:Mn</b>	J. Mineral. Soc. Japan 14, 86	Zap. Vses. Mineral. Ob. 112, 705	Only qualitative chemical information	b
<b>UM1980-//F:AIK</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	KAIF <sub>4</sub> ; associated with burning anthracite deposits, therefore not now considered a mineral	f
<b>UM1980-//O:CIPbW</b>	Mineral. Record 11, 155	Am. Mineral. 66, 220	Later described under the name pinalite: Am. Mineral. 74 (1989), 934	a
<b>UM1980-//S:AgIn</b>	*Bull. Geol. Surv. Japan 31, 585	Am. Mineral. 68, 851	Later described under the name laforêtite: Eur. J. Mineral. 11 (1999), 891	a
<b>UM1980-//S:BiPbTe</b>	11 <sup>th</sup> IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Mineral "M"; identical to UM1970-21-S:BiPbTe	c
<b>UM1980-//S:BiTe[1]</b>	11 <sup>th</sup> IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Mineral "K"; identical to UM1970-22-S:BiTe	c
<b>UM1980-//S:BiTe[2]</b>	11 <sup>th</sup> IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Mineral "L"; no analysis given but apparently compositionally indistinguishable from the discredited mineral csiklovaite	e
<b>UM1980-//S:BiTe[3]</b>	11 <sup>th</sup> IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Mineral "P"; identical to UM1970-23-S:BiTe	c
<b>UM1980-//S:BiTe[4]</b>	11 <sup>th</sup> IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Mineral "E"; indistinguishable from sulphotsumoite (described 1982), on the basis of data reported	c
<b>UM1980-//S:CrFeKTI</b>	Mineral. Zhurn. 2 (6), 3		(K,Tl) <sub>2</sub> Cu <sub>3</sub> FeS <sub>4</sub> ; probably a thallium-bearing murunskite	c
<b>UM1980-//S:CuFeInZn</b>	Bull. Geol. Surv. Japan 31, 585	Am. Mineral. 68, 851	Later shown to be equivalent to sakuraiite: Can. Mineral. 24 (1986), 405	c
<b>UM1980-//S:CuFeK</b>	Mineral. Zhurn. 2 (6), 3		K <sub>2</sub> Cu <sub>3</sub> FeS <sub>4</sub> ; later described under the name murunskite: Zap. Vses. Mineral. Ob. 110 (1981), 468	a
<b>UM1980-//S:FeK</b>	Am. Mineral. 65, 509		Later named bartonite: Am. Mineral. 66 (1981), 369	a
<b>UM1980-//S:Ge</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	GeS <sub>2</sub> ; associated with burning anthracite deposits, therefore not now considered a mineral species	f
<b>UM1980-//SO:Al</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ; associated with burning anthracite deposits, therefore not now considered a mineral species	f
<b>UM1980-//SO:AIK</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	KAl(SO <sub>4</sub> ) <sub>2</sub> ; associated with burning anthracite deposits, therefore not now considered a mineral species	f
<b>UM1980-//SO:AINH</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	Associated with burning anthracite deposits; later named godovikovite: Zap. Vses. Mineral. Ob. 117 (1988), 208	a
<b>UM1980-//SO:ClCuHPbSb</b>	Mineral. Record 11, 155	Am. Mineral. 66, 220	Later described under the name mammothite: Am. Mineral. 71 (1986), 230	a
<b>UM1980-//SO:CuHMnZn</b>	*Rend. Soc. Ital. Mineral. Petrol. 36, 295	Am. Mineral. 66, 1280	Later described under the name campigliaite: Am. Mineral. 67 (1982), 385	a
<b>UM1980-//Se:As</b>	*Penn. Topogr. Geol. Surv. Mineral Resour. Rept. 78, 1	Am. Mineral. 66, 1279	As <sub>2</sub> Se <sub>3</sub> ; associated with burning anthracite deposits, therefore not now considered a mineral species	a
<b>UM1980-//SiO:AsHMnV</b>	*Rend. Soc. Ital. Mineral. Petrol. 36, 159	Am. Mineral. 66, 1279	Later described under the name medaite: Am. Mineral. 67 (1982), 85	a
<b>UM1980-//SiO:BaV</b>	Mineral. J. 10, 122	Am. Mineral. 66, 638	BaV <sub>4</sub> Si <sub>2</sub> O <sub>7</sub> ; the Ba-analogue of haradaite; no data reported	b
<b>UM1980-//SiO:HMnNa</b>	Zap. Vses. Mineral. Ob. 109, 476		Appears to be shafranovskite: Zap. Vses. Mineral. Ob. 111 (1982), 475	c
<b>UM1980-//SiO:Pb</b>	Mineral. Record 11, 155	Am. Mineral. 66, 220	Inadequate data	b
<b>UM1980-//TeO:CuPb</b>	*Dokl. Akad. Nauk SSSR 253, 1448	Am. Mineral. 66, 436	PbCu(TeO <sub>3</sub> ) <sub>2</sub> ; later described under the name <b>choloalite</b> : Mineral. Mag. 44 (1981), 55	a
<b>UM1980-//VO:Cu</b>	Am. Mineral. 65, 1146		Cu <sub>3</sub> V <sub>2</sub> O <sub>8</sub> ; later named mcbrineyite: J. Volcan. Geotherm Res. 33 (1987), 83	a
<b>UM1981-//As:Cu</b>	*Akad. Nauk GruzSSR 97, 133	Zap. Vses. Mineral. Ob. 111, 707	Cu <sub>6</sub> As; indistinguishable from algononite on the basis of composition alone	c
<b>UM1981-//As:FePtS</b>	*Izv. Akad. Nauk SSSR, Ser. Geol. 1981, (2), 103	Zap. Vses. Mineral. Ob. 112, 704	(Pt,Fe)(As,S) <sub>2</sub> ; probably Fe-bearing sperrylite	c
<b>UM1981-//AsS:IrRu</b>	Calif. Geol. 34 (5), 91	Zap. Vses. Mineral. Ob. 112, 704	Unknown mineral "#6"; inadequate data	b
<b>UM1981-//BO:CaCIH</b>	*Rentgen. Mineral. Syr'ya (1981), 41	Am. Mineral. 68, 850	Identical to ekaterinite: Am. Mineral. 66 (1976), 437	c
<b>UM1981-//Bi:PdTe</b>	CIM Sp. Vol. 23, 175		Pd(Bi,Te) (CIM Sp. Vol. 23, 184); indistinguishable from a Te-bearing sobolovskite on basis of available data	c
<b>UM1981-//CO:CaZn</b>	*Rend. Soc. Ital. Mineral. Petrol. 37, 415	Am. Mineral. 67, 1078	Later described under the name minrecordite: Mineral. Record 13 (1982), 131	a
<b>UM1981-//E:AlCuMg</b>	*Zap. Vses. Mineral. Ob. 110, 186	Am. Mineral. 67, 416	Inadequate data; possibly sample contaminants	b,d
<b>UM1981-//E:CuZn[1]</b>	*Zap. Vses. Mineral. Ob. 110, 186	Am. Mineral. 67, 416	Alpha-brass; inadequate data; possibly sample contaminants	b,d
<b>UM1981-//E:CuZn[2]</b>	*Zap. Vses. Mineral. Ob. 110, 186	Am. Mineral. 67, 416	Beta-brass; inadequate data; possibly sample contaminants	b,d
<b>UM1981-//E:CuZn[3]</b>	*Kexue Tongbao 26, 959	Am. Mineral. 67, 854	Later described under the name danbaite; Kexue Tongbao 22 (1983), 959	a
<b>UM1981-//E:CuZn[4]</b>	*Akad. Nauk GruzSSR 97, 133	Zap. Vses. Mineral. Ob. 111, 707	CuZn; not distinguishable from zhanghengite described in 1986, or from alpha or beta brass on the basis of composition alone	c

UM1981-//O:FePbReSrTiY	Neues Jb. Mineral. Mh. (1981), 433	Am. Mineral. 68, 473	(Pb,Sr,Y) <sub>2</sub> (Ti,Fe,Re,Mn) <sub>2</sub> O <sub>38</sub> ; later shown to be gramacciolite-(Y): Eur. J. Mineral. 16 (2004), 171	c
UM1981-//S:BiCuPb	*Changchun Dizhi Xueyuan Xuebao no.4, 20	Am. Mineral. 69, 410	PbCuBi <sub>7</sub> S <sub>12</sub> ; compositionally indistinguishable from UM1974-09-S:BiCuPb	c
UM1981-//S:BiPb	*Flerov <i>et al.</i> (1981), 5	Am. Mineral. 68, 1041	Compositionally not distinct from UM1980-06-S:BiPb; some discrepancies in powder data	c
UM1981-//S:IrOsRu	Calif. Geol. 34 (5), 91	Zap. Vses. Mineral. Ob. 112, 704	Probably the same as UM1965-10-S:IrOsRu	c
UM1981-//S:IrRh[1]	Kexue Tongbao 26, 728	Am. Mineral. 67, 1079	Rh <sub>2</sub> S <sub>3</sub> ; later described under the name bowieite: Can. Mineral. 22 (1984), 543	a
UM1981-//S:IrRh[2]	Bull. Minéral. 104, 508	Am. Mineral. 67, 1079	(Rh,Ir) <sub>2</sub> S <sub>3</sub> ; later described under the name bowieite: Can. Mineral. 22 (1984), 543	a
UM1981-//S:IrRhSb	Bull. Minéral. 104, 508	Am. Mineral. 67, 1080	Same as UM1976-16-S:IrRhSb	c
UM1981-//S:Rh[1]	Calif. Geol. 34 (5), 91	Zap. Vses. Mineral. Ob. 112, 704	Inadequate data; perhaps RhS	b,c
UM1981-//S:Rh[2]	Kexue Tongbao 26, 278	Mineral. Petrol. 60, 185	Later named sulrhodite, which was subsequently discredited as equivalent to bowieite	e
UM1981-//S:Rh[3]	Bull. Minéral. 104, 508	Mineral. Petrol. 60, 185	Later named sulrhodite, which was subsequently discredited as equivalent to bowieite	e
UM1981-//SO:HMg	Earth Planet. Sci. Lett. 53, 363	Mineral. Abst. 33, 82M/0199	Later named caminitite: Am. Mineral. 71 (1986), 819	a
UM1981-//SOCO:CuZn	*Lapis 6, 9	Zap. Vses. Mineral. Ob. 112, 705	Only qualitative chemical information; probably schulenbergite	b,c
UM1981-//Se:Ni	Can. Mineral. 19, 341		Cubic NiSe <sub>2</sub> ; probably penroseite	c
UM1981-//Si:CrFe	*Dokl. Akad. Nauk SSSR 256, 958	Zap. Vses. Mineral. Ob. 112, 704	(Fe,Cr) <sub>2</sub> Si; not distinct on the information available from the mineral later named hapkeite	a
UM1981-//Si:Mg	*Zap. Vses. Mineral. Ob. 110, 186	Am. Mineral. 67, 416	Inadequate data; possibly sample contaminants	b,d
UM1981-//SiO:AlBeCaHMn	*Rend. Soc. Ital. Mineral. Petrol. 37, 669	Zap. Vses. Mineral. Ob. 113, 381	(Mn,Ca) <sub>2</sub> Be <sub>2</sub> (Si,Al) <sub>5</sub> O <sub>13</sub> (OH) <sub>1.35</sub> •2H <sub>2</sub> O; later described under the name chiavennite: Am. Mineral. 68 (1983), 623	a
UM1981-//SiO:ClHNaZr	*Dokl. Akad. Nauk SSSR 257, 608	Am. Mineral. 67, 416	Previously described under the name petarasite: Can. Mineral. 18 (1980), 497	a
UM1981-//SiO:HKZr	*Dokl. Akad. Nauk SSSR 257, 608	Am. Mineral. 67, 416	K <sub>2</sub> ZrSi <sub>3</sub> O <sub>9</sub> •H <sub>2</sub> O; later described under the name umbite: Zap. Vses. Mineral. Ob. 112 (1983), 461	a
UM1981-//SiO:HU	*Dokl. Bolg. Akad. Nauk, 34, 1693	Am. Mineral. 68, 1040	"Group #3"; identical to coffinite	c
UM1982-//As:CuPtSb	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:FePdPt	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:NiPd	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:Pd[1]	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:Pd[2]	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:PdPt	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//As:PdPtSb	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsO:HMnZn	Am. Mineral. 67, 1043		(Mn,Zn) <sub>3</sub> Zn <sub>2</sub> AsO <sub>4</sub> (OH,O) <sub>6</sub> ; same as UM1982-03-AsO:HMnZn; formerly coded as UM1982-04-AsO:HMnZn	c
UM1982-//AsS:CuFeNiPt	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsS:CuIrOsPt	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsS:IrPdPtRhRu	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsS:IrPtRh	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsS:PbSb	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//AsS:PdSb	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//Bi:PtSb	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//Cl:Cu	*Zap. Vses. Mineral. Ob. 111, 562	Am. Mineral. 68, 852	CuCl <sub>2</sub> ; later described under the name talbachite: Dokl. Akad. Nauk SSSR 270 (1983), 415	a
UM1982-//ClF:Ca	*Izv. Vyssh. Uchebn. Zaved. Geol. Razved. 25, 120	Am. Mineral. 68, 645.	CaFCl; later described under the name rorisite: Zap. Vses. Mineral. Ob. 119 (1990), 73	a
UM1982-//E:AuPt	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:CuNiPt	Econ. Geol. 77, 1385	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:CuPd[1]	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:CuPd[2]	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:CuPd[3]	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:FePt	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:HgPd	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:IrNi	Econ. Geol. 77, 1328		Probably Ni-bearing iridium	c
UM1982-//E:PbPd	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	A PbPd alloy; only a list of constituent elements reported	b
UM1982-//E:PdPt	Econ. Geol. 77, 1385	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:PdTi	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
UM1982-//E:PtSn	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b

<b>UM1982-II-NO:HHg</b>	Mineral. Record 13, 233	Am. Mineral. 68, 473	Compound is believed to be of anthropogenic origin, probably being formed from the decomposition of explosives	f
<b>UM1982-II-O:AlCa</b>	Earth Planet. Sci. Lett. 61, 13	Am. Mineral. 68, 850	Later described under the name grossite: Eur. J. Mineral. 6 (1994), 591	a
<b>UM1982-II-O:HU</b>	*Voultsidis <i>et al.</i> (1982), 469	Am. Mineral. 73, 444	Alpha-U <sub>3</sub> O <sub>7</sub> ; apparently identical to UM1978-10-O:U	c
<b>UM1982-II-O:MgTi</b>	Mineral. Mag. 45, 135	Am. Mineral. 68, 645	Mg <sub>2</sub> TiO <sub>4</sub> ; later described under the name qandilite: Mineral. Mag. 49 (1985) 739	a
<b>UM1982-II-O:Mn</b>	*Izv. Akad. Nauk SSSR Ser. Geol. 1, 56	Am. Mineral. 68, 473	Later described under the name akhtenskite: Izv. Akad. Nauk SSSR Ser. Geol. 9 (1989), 75	a
<b>UM1982-II-O:MnNbTaW</b>	*Mineral. Zhurn. 4 (1), 65	Am. Mineral. 69, 213	Formula inconsistent with columbite-group; probably a mixture of columbite + wolframite	d
<b>UM1982-II-OH:CaSn</b>	*Marshukova (1982), 189	Zap. Vses. Mineral. Ob. 114, 485	CaSn(OH) <sub>6</sub> ; appears to be burtite	c
<b>UM1982-II-OH:CuFeSnZn</b>	*Marshukova (1982), 189	Zap. Vses. Mineral. Ob. 114, 485	Cu <sub>0.5</sub> (Zn,Fe) <sub>0.5</sub> Sn(OH) <sub>6</sub> ; appears to be mushistonite	c
<b>UM1982-II-OH:FeSnZn</b>	*Marshukova (1982), 189	Zap. Vses. Mineral. Ob. 114, 485	(Zn,Fe)Sn(OH) <sub>6</sub> ; appears to be vismirnovite	c
<b>UM1982-II-S:AgBiPbTe</b>	*Sztroky & Nagy (1982), 118	Zap. Vses. Mineral. Ob. 113, 381	15Bi <sub>2</sub> S <sub>3</sub> *5Ag <sub>2</sub> S*PbS; later described under the name kitaibelite: Foldtani Kozlony Bull. Geol. Soc. 113 (1983), 247	a
<b>UM1982-II-S:As</b>	*Tufar (1982), 131	Am. Mineral. 69, 213	As <sub>2</sub> S <sub>3</sub> ; indistinguishable from orpiment on basis of data reported	c
<b>UM1982-II-S:AsHgTi</b>	Fortsch. Mineral. 60, 68	Am. Mineral. 68, 1040	Later described under the name simonite: Z. Krist. 161 (1982), 159	a
<b>UM1982-II-S:BiTe</b>	*Sztroky & Nagy (1982), 118	Zap. Vses. Mineral. Ob. 113, 381	Bi <sub>3</sub> TeS <sub>2</sub> ; later described under the name sztrokayite: Foldtani Kozlony Bull. Geol. Soc. 113 (1983), 247	a
<b>UM1982-II-S:CuFeIrNiOsPdPt</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuFeIrNiOsPdRh</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuHgSn</b>	Neues Jb. Mineral. Abh. 144, 307	Am. Mineral. 68, 851	Later described under the name velikite: Dokl. Akad. Nauk SSSR 300 (1988), 432	a
<b>UM1982-II-S:CuIrPt[1]</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuIrPt[2]</b>	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuIrPtRh[1]</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuIrPtRh[2]</b>	Econ. Geol. 77, 1348	Am. Mineral. 69, 410	Inadequate data	b
<b>UM1982-II-S:CuMoRe</b>	Neues Jb. Mineral. Mh. (1982), 6	Am. Mineral. 67, 1078	CuRe <sub>3</sub> MoS <sub>8</sub> or (Re,Mo,Fe,Cu,Os) <sub>2</sub> S <sub>3</sub> ; later named tarkianite: Can. Mineral. 42 (2004), 539	a
<b>UM1982-II-S:CuNiPbPd</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuNiPt</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuPbPt</b>	Econ. Geol. 77, 1348	Am. Mineral. 69, 410	Inadequate data	b
<b>UM1982-II-S:CuPd</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuPt</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:CuPtRh</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:IrNiPbPdPt</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:IrOsPdPt</b>	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:IrOsRu</b>	*Dokl. Akad. Nauk SSSR 267, 1211	Zap. Vses. Mineral. Ob. 113, 381	Only qualitative chemical information	b
<b>UM1982-II-S:IrRh</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:PdSn</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:PtRh</b>	Econ. Geol. 77, 1385	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-S:PtSn</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-SO:CrHNa</b>	Am. Mineral. 67, 132	Mineral. Petrol. 60, 185	Partial analysis; later named schöllhornite (Na <sub>0.3</sub> (H <sub>2</sub> O)[CrS <sub>2</sub> ): Am. Mineral. 70, (1985), 638	a
<b>UM1982-II-SiO:AlCaFeMgTi</b>	Bull. Minéral. 105, 364	Am. Mineral. 68, 1040	Later described under the name dorrite: Am. Mineral. 73 (1988), 1440	a
<b>UM1982-II-SiO:CoMgNiU</b>	Can. Mineral. 20, 231		A Co-Mg-Ni uranyl silicate (p. 234, col. 1); inadequate data; the mineral was later named oursinite: Bull. Minéral. 106 (1983), 305	b,a
<b>UM1982-II-Te:AsPdSb</b>	Econ. Geol. 77, 1432	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-Te:Bi</b>	Int. Geol. Rev. 24, 451	Can. Min. 45, 665	Bi <sub>2</sub> Te; same as UM1980-16-Te:Bi	c
<b>UM1982-II-Te:BiNiPd</b>	Neues Jb. Mineral. Mh. (1982), 6	Am. Mineral. 67, 1078	Reported as (Ni,Pd) <sub>5</sub> (Te,Bi) <sub>8</sub> but no other data given; appears to be the same as UM1976-29-Te:BiNi	c
<b>UM1982-II-Te:FePdPtSbSn</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-Te:Pd</b>	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-Te:PdPtSn</b>	Econ. Geol. 77, 1328	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1982-II-Te:Pt</b>	Econ. Geol. 77, 1348	Mineral. Petrol. 60, 185	Only a list of constituent elements reported	b
<b>UM1983-II-As:PdRh</b>	Zap. Vses. Mineral. Ob. 112, 3		(Pd,Rh) <sub>2</sub> As; probably Rh-bearing palladoarsenide	c
<b>UM1983-II-As:Rh[1]</b>	Zap. Vses. Mineral. Ob. 112, 3	Am. Mineral. 69, 1195	RhAs; later described under the name cherepanovite: Zap. Vses. Mineral. Ob. 114 (1986), 464	a
<b>UM1983-II-As:Rh[2]</b>	Zap. Vses. Mineral. Ob. 112, 3		Rh <sub>3</sub> As; compositionally indistinguishable from polkanovite described in 1998	a,c



UM1983--AsO:FeHMgMnZn	Mineral. Mag. 47, 381	Am. Mineral. 69, 814	(Mn,Mg,Fe3+Al)15(AsO3)(AsO4)2(OH)23; said to be distinct from arakiite (Mineral. Record 31, 253); transferred to Valid list	
UM1983--Bi:PtSb	Zap. Vses. Mineral. Ob. 112, 3		(Pt,Pd)(BiSb); probably the same as UM1974-02-Bi:AsPdPtSb	c
UM1983--CO:HLaNdPb	Schweiz. Mineral. Petrog. Mitt. 63, 1	Zap. Vses. Mineral. Ob. 114, 485	Pb(Nd,Ln)(CO3)2(OH)•H2O; later named gysinite-(Nd): Am. Mineral. 70 (1985), 1314	a
UM1983--E:AuFe	Can. Mineral. 21, 137		Incomplete analysis with very low analytical total; identification probably not possible	b
UM1983--E:CuPd	Zap. Vses. Mineral. Ob. 112, 3		PdCu; probably the same as UM1975--E:CuFePdPt	c
UM1983--E:FeNiPt	Zap. Vses. Mineral. Ob. 112, 3		Pt2FeNi; probably the same as UM1977-04-E:CuFeNiPtSb	c
UM1983--E:HgPd	Zap. Vses. Mineral. Ob. 112, 3		Only qualitative compositional information	b
UM1983--PO:HU	*Dokl. Akad. Nauk SSSR 273, 1460	Am. Mineral. 69, 1195	Later described under the name vyacheslavite: Zap. Vses. Mineral. Ob. 113 (1984), 360	a
UM1983--S:AsPbSb[1]	Bull. Geol. Soc. Finland 55, 3	Am. Mineral. 69, 1195	Pb2Sb20As8S19; mineral "Y" same as UM1981-09-S:AsPbSb	c
UM1983--S:AsPbSb[2]	Bull. Geol. Soc. Finland 55, 3	Am. Mineral. 69, 1195	PbSb6As2S6; mineral "Z"; same as UM1981-10-S:AsPbSb	c
UM1983--S:BiCuFePb	*Aufschluss 34, 41	Zap. Vses. Mineral. Ob. 113, 381	(Cu,Fe)Pb9Sb12S28; later named eclairite: Tscherm. Mineral. Petrog. Mitt. 32 (1983), 103-110	a
UM1983--S:CuFe[1]	*Mineral. Rudn. Mest. (1983), 109	Am. Mineral. 75, 435	"Cu2Fe3S3"; space group F-43m(?) a=5.406Å; inadequate data	b
UM1983--S:CuFe[2]	Am. Mineral. 88, 245		A Cu-Fe sulphide; inadequate data; probably same as UM1979--S:CuFe[1]; close to hypothetical hydroxycubanite (CuFeS3(OH)2)	b,c
UM1983--S:CuIrPbPt	Zap. Vses. Mineral. Ob. 112, 3		Cu3Pb(Ir,Pt)8S16; later named inaglyite: Zap. Vses. Mineral. Ob. 113 (1984), 712	a
UM1983--S:CuPbRhPt	Zap. Vses. Mineral. Ob. 112, 3		Cu3Pb(Rh,Pt)8S16; later named konderite: Zap. Vses. Mineral. Ob. 113 (1984), 703	a
UM1983--S:CuRh	Zap. Vses. Mineral. Ob. 112, 3		CuRh2S4; later named cuprorhodsite: Zap. Vses. Mineral. Ob. 114 (1985), 187	a
UM1983--S:FeRh	Zap. Vses. Mineral. Ob. 112, 3		FeRh2S4; later named ferrorhodsite: Zap. Vser. Mineral. Ob. 127 (1998), 37	a
UM1983--S:IrPtRh	Mineral. Zhurn. 5 (2), 87	Zap. Vses. Mineral. Ob. 114, 485	(Rh,Ir,Pt)3S4; this composition later described under the name kingstonite: Mineral. Mag. 69 (2005), 447	a
UM1983--S:IrRh[1]	Zap. Vses. Mineral. Ob. 112, 3		(Ir,Rh)2S3; later named kashinite: Zap. Vses. Mineral. Ob. 114 (1985), 617	a
UM1983--S:IrRh[2]	Zap. Vses. Mineral. Ob. 112, 3	Zap. Vses. Mineral. Ob. 114, 485	(Rh,Ir)2S3; probably the same as bowieite	c
UM1983--S:Rh	Zap. Vses. Mineral. Ob. 112, 3		Rh1.13S; compositionally indistinguishable from miassite described in 2001	c
UM1983--S:RhSb	Zap. Vses. Mineral. Ob. 112, 3		RhSbS; probably the same as UM1976-16-S:IrRhSb	c
UM1983--SiO:AlFeHMg	Mem. Sci. Geol. (Strasbourg) 73, 123	Am. Mineral. 73, 197	Intergradient vermiculite-kaolinite mineral; inadequate data	b
UM1983--Te:Au	Can. Mineral. 21, 137		Incomplete analysis with very low analytical total; probably montbrayite	b,c
UM1983--Te:Pd	Zap. Vses. Mineral. Ob. 112, 3		PdTe (?); probably kotulskite	c
UM1983--VO:BiH	Mineral. Zhurn. 5 (2), 82	Am. Mineral. 69, 407	Bi5V2O11(OH)3 (?); inadequate data	b
UM1984--As:AgCoNiPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	(Pd2.36Ni0.24Co0.19Ag0.14)Σ3As; probably vinctentite or guanglinite	c
UM1984--As:AgPd	Chem. Erde 43, 27		(Pd,Ag,Co,Ni,Cu,Au)xAsy; compositionally very variable with low analytical totals; perhaps hydrides and perhaps mixtures	b,d
UM1984--As:AgSb	*J. Japan. Assoc. Mineral. Petrol. Econ. Geol. 79, 405	Zap. Vses. Mineral. Ob. 115, 616	Only qualitative compositional information reported	b,d
UM1984--As:CoNiPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd(Co,Ni)As; only formula given; apparently the Co-analogue of majakite and perhaps the same as UM1975-01-As:AgCoNiPdS	b,c
UM1984--As:Pd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	PdAs2; previously reported as UM1975-06-As:Pd	c
UM1984--Cl:BrHN	Rend. Soc. Ital. Mineral. Petrol. 39, 705		NH4(Cl,Br); appears to be Br-bearing sal-ammoniac	c
UM1984--CO:Ni	*Mintek Rep. M145, 1	Am. Mineral. 72, 228	Inadequate data with only partial analysis	b
UM1984--OH:Zn	Aufschluss 36, 73	Zap. Vses. Mineral. Ob. 115, 616	Later described under the name wulfingite: Neues Jb. Mineral. Mh. (1985), 145	a
UM1984--OS:Cu	Fortsch. Mineral. 62, Beiheft. 1, 231		Inadequate data	b
UM1984--PO:CuFeH	Fortsch. Mineral. 62, Beiheft. 1, 231	Am. Mineral. 70, 880	Later described under the name hentschelite: Am. Mineral. 72 (1987), 404	a
UM1984--PO:CuH	Fortsch. Mineral. 62, Beiheft. 1, 231	Am. Mineral. 70, 880	Later described under the name reichenbachite: Am. Mineral. 72 (1987), 404	a
UM1984--PO:HZn	Aufschluss 36, 73	Zap. Vses. Mineral. Ob. 115, 616	Zn3(PO4)2•4H2O; appears to be identical to parahopeite	c
UM1984--S:AgBiFePbSb	Can. Mineral. 22, 481		Pb51Sb20Bi19Cu3AgFeS114; mineral "S"; later named izoklakeite: Can. Mineral. 24 (1986), 1	a
UM1984--S:AgH	Fortsch. Mineral. 62, Beiheft. 1, 256	Zap. Vses. Mineral. Ob. 115, 616	Later described under the name imiterite: Bull. Minéral. 108 (1985), 404	a
UM1984--S:AsCuMo	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Cu3Mo2AsS5; only chemical formula given	b
UM1984--S:Cr	*Geol. Geofiz. (1984) (4), 38	Am. Mineral. 73, 442	CrS; same as UM1965-09-S:Cr. Formerly coded as UM1984-28-S:Cr	c
UM1984--S:CuIrPt[1]	Econ. Geol. 79, 491	Am. Mineral. 74, 1217	Later described under the name cuproidisite: Zap. Vses. Mineral. Ob. 114 (1985), 187	a
UM1984--S:CuIrPt[2]	*Zap. Vses. Mineral. Ob. 113, 712	Am. Mineral. 71, 231	Later described under the name cuproidisite: Zap. Vses. Mineral. Ob. 114 (1985), 187	a
UM1984--S:CuMo[1]	Chem. Erde 43, 27	Am. Mineral. 74, 1218	CuMo2S5; only chemical formula given; corresponds to the discredited mineral castaingite	e,b

UM1984-//S:CuMo[2]	Chem. Erde 43, 27	Am. Mineral. 74, 1218	CuMoS <sub>3</sub> ; only chemical formula given	b
UM1984-//S:CuMo[3]	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Cu <sub>8</sub> MoS <sub>9</sub> ; only chemical formula given	b
UM1984-//S:CuSbV	*Mineral. Zhurn. 6 (2), 88	Am. Mineral. 70, 439	Later described under the name stibicolusite: Dokl. Akad. Nauk SSSR 324 (1992), 411	a
UM1984-//SiO:AlCaHKNa	Soviet Phys. Cryst. 29, 256		Later described under the name gmelinite-K: Zap. Vser. Mineral. Ob. 130 (2001) (3), 65	a
UM1984-//SiO:CrHKMg	*Zap. Vses. Mineral. Ob. 113, 68	Am. Mineral. 70, 219	Later described under the name chromceladonite: Zap. Vser. Mineral. Ob. 129 (2000) (1), 38	a
UM1984-//Te:Bi	*Dokl. Akad. Nauk SSSR 275, 717	Can. Min. 45, 665	Bi <sub>2</sub> Te; same as UM1980-16-Te:Bi	c
UM1985-//AsO:CaCuHY	Acta Cryst. C41, 161-163.	Am. Mineral. 70, 1333	Appears to be agardite-(Y); although Ca>Y, Ca<sum(Y+REE), with Y dominant	b,c
UM1985-//Bi:BiPdSb	*Dokl. Akad. Nauk SSSR 284, 438	Zap. Vses. Mineral. Ob. 117, 727	Pd(Bi,Sb); probably the same as UM1961-08-Sb:BiPd	c
UM1985-//E:CuSn	*Dokl. Akad. Nauk SSSR 285, 203	Am. Mineral. 72, 227	Probably the same as UM1965-07-E:CuSn	c
UM1985-//E:FeIr	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//E:FeIrRh	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//E:FeOs	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//E:FeRu	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//E:NiIr	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//E:NiRu	*Zap. Vses. Mineral. Ob. 114, 544	Am. Mineral. 73, 197	Only inadequate compositional data with low totals	b
UM1985-//I:Hg	Aufschluss 36, 73	Am. Mineral. 71, 1548	Hg <sub>2</sub> I <sub>2</sub> : later described under the name moschelite: Neues Jb. Mineral. Mh. (1989), 343	a
UM1985-//S:AgBiPb	*Izv. Akad. Nauk SSSR, Ser. Geol. 1985 (9), 65	Zap. Vses. Mineral. Ob. 118 (4), 102	Ag-Pb-Bi sulphosalts; no additional information	b
UM1985-//S:AgBrClHgI	Austral. J. Earth Sci. 32, 311		Later described under the name perroudite: Am. Mineral. 72 (1987), 1251	a
UM1985-//S:AgCuFe	*Ann. Soc. Geol. Pol. 53, 143	Zap. Vses. Mineral. Ob. 118 (4), 102	Four phases; no additional information	d
UM1985-//S:AgCuHg	Austral. J. Earth Sci. 32, 311		Later described under the name danielsite: Am. Mineral. 72 (1987), 401	a
UM1985-//S:AgCuTe	*C. R. Acad. Bulgare Sci. 38, 211	Am. Mineral. 71, 1281	Appears to be the same mineral as UM1976-12-S:AgTe	c
UM1985-//S:AgIn	Bull. Minéral. 108, 245	Am. Mineral. 71, 846	Identical to UM1980-//S:AgIn; later described under the name laforêtite: Eur. J. Mineral. 11 (1999), 891	a,c
UM1985-//S:CrCuSbZn	*Zap. Vses. Mineral. Ob. 114, 622	Am. Mineral. 72, 227	Appears to be identical to florensovite: Zap. Vses. Mineral. Ob. 118 (1989) (1), 57	a,c
UM1985-//S:CuPd	*Zap. Vses. Mineral. Ob. 114, 187	Mineral. Petrol. 42, 287	Appears to be identical to vasilite: Can. Mineral. 28 (1990), 687	a,c
UM1985-//SO:AlCHMg	*Dokl. Akad. Nauk SSSR 284, 443	Am. Mineral. 71, 1548	(Mg,Al) <sub>6</sub> (SO <sub>4</sub> ,CO <sub>3</sub> )(OH) <sub>12</sub> nH <sub>2</sub> O; inadequate data; apparently a mixture of two polytypes	d,b
UM1985-//Se:Ni	*Naturwissen. 72, 655	Am. Mineral. 73, 442	Inadequate data; possibly same as UM1990-//Se:Ni	b
UM1985-//SiO:AlCaFeH	*Contr. Mineral. Petrol. 91, 283	Am. Mineral. 73, 445	Fe-analogue of saponite; later described under the name ferrosaponite: Zap. Vses. Mineral. Ob. 132 (2003) (2), 68	a
UM1985-//SiO:AlFeHMg	*Oil & Gas Geol. 6, 138	Am. Mineral. 73, 445	Referred to as Fe saponite, the mineral is actually Mg-dominant and hence a ferrous variety of saponite	c
UM1985-//SiO:FREEY	Mineral. Zhurn. 7 (6), 79	Am. Mineral. 75, 436	Later described under the name fluorthalénite-(Y): Dokl. Akad. Nauk 354 (1997), 77	a
UM1985-//SiO:NaTi	*Dokl. Akad. Nauk SSSR 284, 1136	Am. Mineral. 73, 445	Later described under the name paranatisite: Zap. Vses. Mineral. Ob. 121 (1992) (6), 133	a
UM1985-//SiO:REEY	*Mineral. Zhurn. 7, (6) 79	Am. Mineral. 73, 197	Some discrepancies in X-ray powder pattern but insufficiently distinguished from thalénite-(Y)	b,c
UM1985-//Te:BiPdSb	Can. Mineral. 23, 301		Pd <sub>3</sub> Sb <sub>2</sub> Te <sub>2</sub> ; no data	b
UM1986-//[1]	Rocks & Minerals 61,182		"UK49"; now recognised as a mixture of terskite and "UK38": Mineral. Record 21 (1990), 363	d
UM1986-//[2]	Neues Jb. Mineral. Abh. 155, 289	Am. Mineral. 73, 933	No compositional information; a=5.42Å, b=7.13Å, c=13.02Å, alpha=94.04°, beta=96.44°, gamma=89.32°; intergrown with epistolite	b,d
UM1986-//As:NiPd[1]	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>2</sub> Ni <sub>6</sub> As <sub>3</sub> ; tabulated formula but no analytical data	b
UM1986-//As:NiPd[2]	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	(Pd,Ni) <sub>5</sub> As <sub>2</sub> ; tabulated formula but no analytical data	b
UM1986-//As:Pd	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>5</sub> As <sub>2</sub> ; tabulated formula but no analytical data; probably same as UM1975-05-As:Pd	b,c
UM1986-//As:PdPtSb	Econ. Geol. 81, 1067		Only element association given	b
UM1986-//As:PdPtSnSb	Econ. Geol. 81, 1067		Only element association given	b
UM1986-//As:PdSn	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>6</sub> Sn <sub>2</sub> As <sub>3</sub> ; tabulated formula but no analytical data	b
UM1986-//As:PdTe	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd(As <sub>0.6</sub> Te <sub>0.4</sub> ); tabulated formula but no analytical data	b
UM1986-//AsO:HMnZn	Mineral. Record 17, 126	Am. Mineral. 72, 228	Same mineral as UM1982-04-AsO:HMnZn	c
UM1986-//AsO:Mn	Am. Mineral. 71, 1034		Said to be Mn-arsenite but only qualitative compositional data	b
UM1986-//AsS:BiPdPt	Econ. Geol. 81, 1067		Only element association given	b
UM1986-//Cl:Bi	Nature 320, 518		BiCl <sub>2</sub> ; inadequate data	b

<b>UM1986--/Cl:BiPd</b>	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>4</sub> Bi <sub>3</sub> Cl <sub>3</sub> ; photomicrographs but no analytical data; probably same as UM1981-03-Cl:BiPd	b,c
<b>UM1986--/E:AuPb[1]</b>	*Zap. Vses. Mineral. Ob. 115, 301	Am. Mineral. 73, 197	Possibly AuPb <sub>2</sub> ; inadequate data	b
<b>UM1986--/E:AuPb[2]</b>	*Zap. Vses. Mineral. Ob. 115, 301	Am. Mineral. 73, 197	Possibly AuPb <sub>3</sub> ; inadequate data	b
<b>UM1986--/E:CuFeSnZn</b>	Can. Mineral. 24, 329		(Cu,Zn,Fe,Sn): an alloy of copper	b
<b>UM1986--/E:FeIr</b>	US Geol. Surv. Bull. 1660	Am. Mineral. 73, 442	Mineral "A"; inadequate data	b
<b>UM1986--/E:FePt</b>	Can. Mineral. 24, 329		Pt <sub>3</sub> Fe; probably isoferroplatinum	b,c
<b>UM1986--/F:AlHN</b>	Mineral. Mag. 50, 279		X-ray powder diffraction pattern matches that of NH <sub>4</sub> AlF <sub>4</sub> ; a product of burning coal	f
<b>UM1986--/F:Li</b>	Rocks & Minerals 61,182		Mont St. Hilaire mineral "UK54"; subsequently named griceite: Can. Mineral. 27 (1989), 125	a
<b>UM1986--/NbO:CaHNnSr</b>	Rocks & Minerals 61,182	Mineral. Record 21, 363	Recognised as hochelagaite before publication of Mont St. Hilaire unnamed mineral code "UK50": Can. Mineral. 24 (1986), 449 Later named hawthorneite: Am. Mineral. 74 (1989), 668	c
<b>UM1986--/O:BaCrFeMgTi</b>	Nature 319, 761		Tetragonal alpha-U <sub>3</sub> O <sub>7</sub> ; same as UM1978-10-O:U	a
<b>UM1986--/O:U[1]</b>	Uranium 3, 69	Am. Mineral. 73, 444		c
<b>UM1986--/O:U[2]</b>	CIM Sp. Vol. 32, 27	Am. Mineral. 73, 444	Possibly a mixture or same as UM1978-10-O:U	d,c
<b>UM1986--/O:UZn</b>	Mineral. Record 17, 126	Am. Mineral. 72, 228	Inadequate data from sample of doubtful purity	b,d
<b>UM1986--/OH:Al</b>	Rocks & Minerals 61,182	Mineral. Record 21, 363	Mont St. Hilaire mineral "UK51"; not distinguishable from nordstrandite or gibbsite on available data	c
<b>UM1986--/PO:Fe</b>	J. Geol. Soc. Japan 92, 243	Zap. Vses. Mineral. Ob. 117, 727	Only qualitative compositional information	b
<b>UM1986--/PO:HMg</b>	Neues Jb. Mineral. Mh. 1986, 343	Am. Mineral. 73, 444	Later described under the name phosphoellenbergerite: Mineral. Petrol. 62 (1998), 89	a
<b>UM1986--/PO:Mn</b>	Can. Mineral. 24, 599		Only qualitative compositional information	b
<b>UM1986--/S:AgAu</b>	*Zap. Uzb. Otd. VMO 39, 5	Zap. Vses. Mineral. Ob. 117, 727	Ag <sub>3</sub> AuS <sub>2</sub> ; probably uytenbogaardtite	c
<b>UM1986--/S:AgBiCuPb[1]</b>	Geol. Geofiz. 27 (10), 53	Zap. Vses. Mineral. Ob. 117, 727	Ag <sub>1.25</sub> Cu <sub>1.62</sub> Pb <sub>1.25</sub> Bi <sub>10</sub> S <sub>17.1</sub> ; probably makovickyite	c
<b>UM1986--/S:AgBiCuPb[2]</b>	Geol. Geofiz. 27 (10), 53	Zap. Vses. Mineral. Ob. 117, 727	Ag <sub>2.46</sub> Cu <sub>1.4</sub> Pb <sub>0.6</sub> Bi <sub>10</sub> S <sub>17.3</sub> ; appears to be same as UM1971-05-S:AgBiCu	c
<b>UM1986--/S:AgBiPb[1]</b>	Geol. Geofiz. 27 (10), 53	Zap. Vses. Mineral. Ob. 117, 727	AgPb <sub>1.3</sub> Bi <sub>4</sub> S <sub>7.84</sub> ; appears to be same as UM1971--/S:AgBiCuPb	c
<b>UM1986--/S:AgBiPb[2]</b>	*Mem. Fac. Lib. Arts Educ. Pt.2 (Yammanaski U.) 37, 74	Am. Mineral. 74, 950	Within the compositional ranges reported for lillianite	c
<b>UM1986--/S:AgPt</b>	Econ. Geol. 81, 1067		Only element association given	b
<b>UM1986--/S:AsCuGeV</b>	Vest. Mosk. Univ. Geol. Ser. 4, 41 (3), 59		Later named germanocolusite: Vest. Mosk. Univ. Geol. Ser. 4, 47 (1992) (6), 50	a
<b>UM1986--/S:AsFeIrPtRh</b>	US Geol. Surv. Bull. 1660	Am. Mineral. 73, 442	Mineral "B"; inadequate data	b
<b>UM1986--/S:AsHgSb</b>	*Dokl. Akad. Nauk SSSR 290, 1208	Am. Mineral. 74, 949	Hg <sub>12</sub> (As,Sb) <sub>8</sub> S <sub>12</sub> ; As:Sb very close to 1:1; not sufficiently distinct from tvalchrelidzeite to warrant an entry as an unnamed mineral	c
<b>UM1986--/S:AsNiPdRh</b>	US Geol. Surv. Bull. 1660	Am. Mineral. 73, 442	Mineral "C"; inadequate data	b
<b>UM1986--/S:AuBiPb</b>	Neues Jb. Mineral. Mh. 1986, 416	Am. Mineral. 75, 434	Au(Bi,Pb) <sub>6</sub> S <sub>4</sub> ; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
<b>UM1986--/S:AuBiPbTe</b>	*Vest. Ústred. Ústavu Geol. 61, 217	Zap. Vses. Mineral. Ob. 119 (5), 71	Pb-Au-Bi sulphotellurides; no additional information	b
<b>UM1986--/S:BiCuFePbTe</b>	*Geol. Geofiz. (1986) (10), 60	Zap. Vses. Mineral. Ob. 117, 727	Only qualitative compositional data.	b
<b>UM1986--/S:BiPb</b>	*Novye Dannye Mineral. 33, 86	Am. Mineral. 75, 435	Indistinguishable from galenobismutite	c
<b>UM1986--/S:BiTe</b>	*Novye Dannye Mineral. 33, 86	Am. Mineral. 75, 435	Inadequate data; perhaps joséite-A or protojoséite	b,c
<b>UM1986--/S:Cu</b>	Rocks & Minerals 61,182	Mineral. Record 21, 363	Cu <sub>2-x</sub> S (x=0.12-0.37); Mineral "UK55"; indistinguishable from digenite, anilite, roxbyte or djurleite on available data	c
<b>UM1986--/S:CuFeSn</b>	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Mineral "II"; indistinguishable from vincienite	c
<b>UM1986--/S:CuIrNiRhRu</b>	Legendre & Augé (1986), 361	Am. Mineral. 74, 1216	(Ir,Cu,Ni,Rh,Ru) <sub>2</sub> S <sub>3</sub> ; indistinguishable from UM1975-15-S:CuIrRh	c
<b>UM1986--/S:FeGaZn</b>	Meteoritics 21, 23		(Fe,Zn,Ga) <sub>5</sub> ; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
<b>UM1986--/S:FeIrPbRh</b>	US Geol. Surv. Bull. 1660	Am. Mineral. 73, 442	Mineral "D"; inadequate data	b
<b>UM1986--/S:FeIrRu</b>	Econ. Geol. 81, 1067	Mineral. Petrol. 60, 185	Only element association given	b
<b>UM1986--/S:FeZn</b>	Meteoritics 21, 417		(Fe,Zn) <sub>5</sub> ; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
<b>UM1986--/S:IrOsPt</b>	Econ. Geol. 81, 1067		Only element association given	b
<b>UM1986--/S:PtPtSb</b>	Econ. Geol. 81, 1067	Mineral. Petrol. 60, 185	Only element association given (perhaps genkinite)	b,c
<b>UM1986--/S:PtSb</b>	Econ. Geol. 81, 1067	Mineral. Petrol. 60, 185	Only element association given	b
<b>UM1986--/S:PtRh</b>	Econ. Geol. 81, 1067		Only element association given	b
<b>UM1986--/Sb:AsPd</b>	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>5</sub> (Sb,As) <sub>2</sub> ; tabulated but no analytical data; close to stillwaterite	b,c
<b>UM1986--/Sb:PdSn</b>	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>2</sub> (Sb,Sn); photomicrographs but no analytical data	b
<b>UM1986--/Se:BiS</b>	*Kovalenker (1986), 111	Am. Mineral. 74, 949	Not compositionally distinct from laitakarite	c
<b>UM1986--/Si:Fe[1]</b>	Science 234, 189	Am. Mineral. 73, 197	Fe <sub>3</sub> Si <sub>7</sub> ; inadequate data; close to ferdasilicite	b,c

<a href="#">UM1986-//Si:Fe[2]</a>	Acta Mineral. Sinica 6, 63		Fe <sub>2</sub> Si <sub>5</sub> ; same as luobusaite described later: Acta Geol. Sinica 80 (2006), 656. Formerly coded as UM1986-58-SiFe	a
<a href="#">UM1986-//SiO:AlCa</a>	Am. Mineral. 71, 1372		K-poor, Ca-rich mineral with the nepheline-structure; may be yoshiokaite	b,c
<a href="#">UM1986-//SiO:AlCaFeHKMnNaTi</a>	Rocks & Minerals 61, 182	Mineral. Record 21, 363	(Na,K) <sub>2</sub> (Mn,Fe,Ca,Ti,Al) <sub>3</sub> (Si,Al) <sub>8</sub> O <sub>20</sub> ·8H <sub>2</sub> O; Mont St. Hilaire "UK38"; later equated with zakharovite by original authors: Rocks & Minerals 70 (1995), 90. Formerly coded as UM1986-SiO:AlCaFeHKMnNaTi	a
<a href="#">UM1986-//SiO:AlHNaTi</a>	Neues Jb. Mineral. Mh. 1986, 67	Am. Mineral. 73, 445	Clearly identical to vinogradovite	c
<a href="#">UM1986-//SiO:CaClFHKNa</a>	Rocks & Minerals 61, 182	Mineral. Record 21, 363	Mont St. Hilaire mineral "UK57"; indistinguishable from fedorite on available data	b,c
<a href="#">UM1986-//SiO:HMn</a>	14 <sup>th</sup> IMA, Proc., 117		Inadequate data and X-ray amorphous	b
<a href="#">UM1986-//Sn:PdPtSb</a>	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	(Pd,Pt) <sub>5</sub> (Sn,Sb) <sub>2</sub> ; tabulated but no analytical data	b
<a href="#">UM1986-//Sn:PdSb</a>	Econ. Geol. 81, 1203	Am. Mineral. 74, 1218	Pd <sub>2</sub> (Sn,Sb); Apparently the same as UM1976-27-Sn:PdSb	c
<a href="#">UM1987-//As:NiRh</a>	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	RhNiAs; no data other than formula; apparently the same as UM1983-03-As:NiRh	c
<a href="#">UM1987-//As:PdRh</a>	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	RhPdAs; no data other than formula; could be related to palladodymite	b,c
<a href="#">UM1987-//As:Rh</a>	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	Rh <sub>2</sub> As; no data other than formula; probably rhodarsenide	b,c
<a href="#">UM1987-//Bi:Pd</a>	*Novye Dannye Mineral. 34, 108	Zap. Vses. Mineral Ob. 118 (4), 102	PdBi <sub>2</sub> ; no data other than formula; probably froodite	b,c
<a href="#">UM1987-//Bi:PdTe</a>	Mineral. Petrol. 36, 169		Pd(Bi,Te); not distinguishable from Te-bearing sobolevskite	c
<a href="#">UM1987-//C:Ti</a>	*Mineral. Zhurn. 9 (4), 71	Zap. Vses. Mineral Ob. 118 (4), 102	TiC; probably khamrabaevite	c
<a href="#">UM1987-//CO:AlCaCrH</a>	Izv. Akad. Nauk SSSR, Ser. Geol. 5, 127	Am. Mineral. 74, 951	Possibly a Cr-bearing alumohydrocalcite, but data are inadequate	b,c
<a href="#">UM1987-//E:AuHg</a>	Ann. Acad. Bras. Ciénc. 58, 457	Am. Mineral. 74, 504	Au <sub>3</sub> Hg; probably anthropogenic and may be related to weishanite	f,c
<a href="#">UM1987-//E:CuFeNiPt</a>	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	Pt(Cu,Ni,Fe) <sub>3</sub> ; no data other than formula	b
<a href="#">UM1987-//E:CuPbSn</a>	*Novye Dannye Mineral. 34, 108	Zap. Vses. Mineral Ob. 118 (4), 102	Pb <sub>2</sub> SnCu; no data other than formula	b
<a href="#">UM1987-//OH:AICMgS[1]</a>	Clays Clay Minerals 35, 401		16.5Å phase given unapproved name CO <sub>3</sub> -SO <sub>4</sub> -hydrotalcite: Dokl. Akad. Nauk SSSR 284 (1985), 443	c
<a href="#">UM1987-//OH:AICMgS[2]</a>	Clays Clay Minerals 35, 401		18.5Å phase given unapproved name CO <sub>3</sub> -SO <sub>4</sub> -hydrotalcite-3R: Dokl. Akad. Nauk SSSR 284 (1985), 443	c
<a href="#">UM1987-//OH:AIMgS[1]</a>	Clays Clay Minerals 35, 401		8.8Å phase given unapproved name SO <sub>4</sub> -hydrotalcite: Dokl. Akad. Nauk SSSR 284 (1985), 443	c
<a href="#">UM1987-//OH:AIMgS[2]</a>	Clays Clay Minerals 35, 401		11Å phase given unapproved name SO <sub>4</sub> -hydrotalcite-1H: Dokl. Akad. Nauk SSSR 284 (1985), 443	c
<a href="#">UM1987-//O:AlMgTi</a>	*Contr. Mineral. Petrol. 96, 35	Am. Mineral. 75, 1434	Phase "A"; compositionally indistinguishable from UM1978-08-O:AlCaCrFeMgTi	c
<a href="#">UM1987-//O:AlTi</a>	*Contr. Mineral. Petrol. 96, 35	Am. Mineral. 75, 1434	Phase "B"; Perhaps AlTi <sup>3+</sup> Ti <sup>4+</sup> 2O <sub>7</sub> but data inadequate	b
<a href="#">UM1987-//O:BaCrFeMgTi</a>	Am. Mineral. 72, 633		Later described under the name hawthorneite: Am. Mineral. 74 (1989), 668	a
<a href="#">UM1987-//O:HMnNa</a>	Mineral. Mag. 51, 463		NaMn <sub>14</sub> O <sub>27</sub> ·27H <sub>2</sub> O; "Marine 10Å manganate"; probably buserite	c
<a href="#">UM1987-//OH:AICMg</a>	Clays Clay Minerals 35, 401		Mg <sub>4</sub> Al <sub>2</sub> (OH) <sub>12</sub> (CO <sub>3</sub> ,SO <sub>4</sub> )·3H <sub>2</sub> O; probably same as UM1985-38-SO:AICMg	c
<a href="#">UM1987-//PO:BiH</a>	*Hallesches Jahrb. Geowiss, 12, 123	ICDD 42-1325	Bi <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> O(OH); later described under the name petitjeanite: Neues Jb. Mineral. Mh. (1993), 487	a
<a href="#">UM1987-//PO:FeHKMgMnTi</a>	*Rev. Asoc. Argentina Mineral. Petrol. Sedimentol. 18, 27	Am. Mineral. 75, 245	No data other than possible formula: KTi(Mn,Fe,Mg)Fe <sub>2</sub> (PO <sub>4</sub> ) <sub>4</sub> (OH) <sub>3</sub> ·nH <sub>2</sub> O	b
<a href="#">UM1987-//POSiO:CaFMgMnNaNbTiZr[1]</a>	*Dokl. Akad. Nauk SSSR 294, 357	Am. Mineral. 75, 245	Mineral "X5"; later described under the name polyphite: Zap. Vses. Mineral. Ob. 121 (1992) (1), 105	a
<a href="#">UM1987-//POSiO:CaFMgMnNaNbTiZr[2]</a>	*Mineral. Zhurn. 9 (3), 28	Am. Mineral. 75, 245	Na <sub>14</sub> CaMgTi <sub>4</sub> [Si <sub>2</sub> O <sub>7</sub> ] <sub>2</sub> [PO <sub>4</sub> ] <sub>4</sub> O <sub>4</sub> F <sub>2</sub> ; Mineral "T"; later described under the name quadruphite: Zap. Vses. Mineral. Ob. 121 (1992) (1), 105	a
<a href="#">UM1987-//S:AgBiPb</a>	*Dokl. Akad. Nauk SSSR 292, 1235	Am. Mineral. 73, 444	Indistinguishable from UM1985-10-S:AgBiPb	c
<a href="#">UM1987-//S:AgBiPbSb</a>	Zap. Vses. Mineral. Ob. 116, 614	Zap. Vses. Mineral Ob. 118 (4), 102	AgPb(Sb,Bi) <sub>3</sub> S <sub>6</sub> ; no data other than formula	b
<a href="#">UM1987-//S:AgCu</a>	*Mineral. Zhurn. 9 (6), 5	Am. Mineral. 75, 435	Cu <sub>2</sub> AgS; no data other than formula	b
<a href="#">UM1987-//S:AgFe[1]</a>	Proc. Yorks. Geol. Soc. 461, 133	Am. Mineral. 73, 1497	AgFeS <sub>2</sub> ; indistinguishable from lenaite: Zap. Vses. Mineral. Ob. 124 (1995) (5), 85	a,c
<a href="#">UM1987-//S:AgFe[2]</a>	*Mineral. Zhurn. 9 (6), 5	Am. Mineral. 75, 435	Mineral "X"; AgFeS <sub>2</sub> ; apparently the same mineral as UM1987-//S:AgFe[1]	c
<a href="#">UM1987-//S:AgHg</a>	*Mineral. Zhurn. 9 (6), 5	Am. Mineral. 75, 435	Ag <sub>2</sub> HgS <sub>2</sub> ; indistinguishable from imiterite	c
<a href="#">UM1987-//S:AsPbTI</a>	Schweiz. Mineral. Petrog. Mitt. 75, 277		Pb <sub>3</sub> (As,Sb) <sub>5</sub> S <sub>11</sub> ; apparently the same as baumhauerite-2a	c
<a href="#">UM1987-//S:BiCuPbSb[1]</a>	*Izv. Akad. Nauk SSSR, Ser. Geol. (1), 86	Zap. Vses. Mineral Ob. 118 (4), 102	Cu <sub>2</sub> Pb <sub>6</sub> (Sb,Bi) <sub>16</sub> S <sub>31</sub> ; no data other than formula; appears to be compositionally very similar to UM1987-11-S:BiCuPbSb	b,c
<a href="#">UM1987-//S:BiCuPbSb[2]</a>	*Izv. Akad. Nauk SSSR, Ser. Geol. (1), 86	Zap. Vses. Mineral Ob. 118 (4), 102	Cu <sub>2</sub> Pb <sub>6</sub> (Sb,Bi) <sub>15</sub> S <sub>28</sub> ; no data other than formula; appears to be compositionally very similar to UM1987-11-S:BiCuPbSb	b,c

UM1987-//S:CuFeSn	*Geol. Rudn. Mest. 1987 (2), 67	Zap. Vses. Mineral. Ob. 118 (4), 102	PdBi <sub>2</sub> ; seven phases; no additional information	b
UM1987-//S:FeMnZn	Meteoritics 22, 370		(Fe,Zn,Mn)S; cf UM1972-//S:FeMnS; later described under the name rudashevskiyite: Am. Mineral. 93 (2008), 902	a
UM1987-//S:FeNiRu	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	(Ni,Fe,Ru) <sub>9-x</sub> S <sub>8</sub> ; probably ruthenium-bearing pentlandite or godlevskite	c
UM1987-//S:Ir	*Dokl. Akad. Nauk SSSR 295, 190	Zap. Vses. Mineral Ob. 118 (4), 102	Ir <sub>2</sub> S <sub>3</sub> ; no data other than formula; probably kashinite	b,c
UM1987-//S:IrSb	Mineralium Deposita 22, 178	Am. Mineral. 74, 1216	IrSbS - only qualitative data; similar to tolovkite & UM1976-17-S:IrRhSb	b,c
UM1987-//S:RhSb	Mineralium Deposita 22, 178	Am. Mineral. 74, 1216	RhSbS - only qualitative data; similar to UM1976-16-S:IrRhSb	b,c
UM1987-//Sb:NiRh	Mineralium Deposita 22, 178	Am. Mineral. 74, 1216	Only qualitative data - metal ratios not known	b
UM1987-//SiO:AlCaCeCrHLaMg	Can. Mineral. 25, 413	Can. Mineral. 40, 1411	CaLaMg(Al,Cr) <sub>2</sub> (Si <sub>2</sub> O <sub>7</sub> )(SiO <sub>4</sub> )O(OH); equivalent to chromium-bearing dissakisite-(La) in the IMA-approved nomenclature for epidote group	a
UM1987-//SiO:AlCrHK	J. Petrol 28, 867	Mineral. Mag. 51, 593	Later described under the name chromphyllite: Zap. Vser. Mineral. Ob. 126 (1997) (2), 110	a
UM1988-//AsO:FeHMgMnZn	Geol. Fören. Förh. 110, 181	Am. Mineral. 74, 1402	Compositionally indistinguishable from UKI1983-(AsO:FeHMgMnZn)	c
UM1988-//AsO:HMn	Z. Krist. 185, 611		Mn <sub>5</sub> (AsO <sub>4</sub> ) <sub>2</sub> (AsO <sub>3</sub> OH) <sub>2</sub> ·10H <sub>2</sub> O; later described under the name geigerite: Am. Mineral. 74 (1989), 676	a
UM1988-//BO:MgMnSb	Neues Jb. Mineral. Mh. 1988, 231	Am. Mineral. 74, 1402	(Mg <sub>7</sub> Mn <sup>2+</sup> )(Mn <sup>3+</sup> <sub>3</sub> Sb <sup>3+</sup> )(BO <sub>5</sub> ) <sub>4</sub> ; not distinct from pinakiolite	c
UM1988-//Cl:Ca	*Akad. Nauk SSSR, Ural. Otdel (1988), 5	Am. Mineral. 78, 1112	CaCl <sub>2</sub> ; product of a burning coal dump; equivalent to hydrophilite	f
UM1988-//Cl:FeHO	*Akad. Nauk SSSR, Ural. Otdel (1988), 5	Am. Mineral. 78, 1112	FeCl <sub>3</sub> ·2.5H <sub>2</sub> O (?); product of a burning coal dump	f
UM1988-//E:AgAuHg[1]	*Godishnik. Vissh. Minno-Geol. Inst. Sofia 34, 227	Am. Mineral. 75, 1212	(Au,Ag) <sub>2</sub> Hg; considered to result from contamination during amalgamation procedures associated with mining	f
UM1988-//E:AgAuHg[2]	*Godishnik. Vissh. Minno-Geol. Inst. Sofia 34, 227	Am. Mineral. 75, 1212	AgAuHg; considered to result from contamination during amalgamation procedures associated with mining	f
UM1988-//E:AgAuHg[3]	*Godishnik. Vissh. Minno-Geol. Inst. Sofia 34, 227	Am. Mineral. 75, 1212	(Au,Ag)Hg; considered to result from contamination during amalgamation procedures associated with mining	f
UM1988-//E:AgAuHg[4]	*Godishnik. Vissh. Minno-Geol. Inst. Sofia 34, 227	Am. Mineral. 75, 1212	(Au,Ag) <sub>3</sub> Hg; considered to result from contamination during amalgamation procedures associated with mining	f
UM1988-//E:AgAuHg[5]	*Godishnik. Vissh. Minno-Geol. Inst. Sofia 34, 227	Am. Mineral. 75, 1212	(Au,Ag) <sub>3</sub> Hg <sub>2</sub> ; considered to result from contamination during amalgamation procedures associated with mining	f
UM1988-//E:AuNi	*Dokl. Akad. Nauk SSSR 303, 1209	Am. Mineral. 75, 1934	Inadequately defined Au-Ni alloys	b
UM1988-//E:AuPb	*Dokl. Akad. Nauk SSSR 303, 1209	Am. Mineral. 75, 1934	Later described under the name anyuiliite: Mineral. Zhurn. 11 (1989) (4), 88	a
UM1988-//E:FeIrOsRu	Mineral. Zhurn. 10 (1), 15	Zap. Vses. Mineral. Ob. 119 (5), 70	(Os,Ir,Fe,Ru); evidently Fe-bearing iridosmine	c
UM1988-//F:Al	Am. Mineral. 73, 855		AlF <sub>3</sub> ; identified in mixtures but not characterised.	b
UM1988-//F:AlHO	Am. Mineral. 73, 861		AlF <sub>3</sub> ·3H <sub>2</sub> O; later described under the name rosenbergite: Eur. J. Mineral. 5 (1993), 1167	a
UM1988-//O:Pb	*Akad. Nauk SSSR, Ural. Otdel (1988), 5	Am. Mineral. 78, 1112	PbO <sub>2</sub> ; a cubic polymorph of plattnerite; product of a burning coal dump	f
UM1988-//S:AgAsCu	*Mineral. Zhurn. 10, 25	Am. Mineral. 75, 711	AgCu <sub>8</sub> As <sub>4</sub> S <sub>13</sub> ; typographical error makes reported analysis unreliable	b
UM1988-//S:AgAu	*Dokl. Akad. Nauk SSSR 303, 944	Zap. Vses. Mineral. Ob. 119 (5), 70	AgAuS; probably petrovskaita	c
UM1988-//S:AgBiCuPbSe	*Sofiisk. Univ. Geol.-Geogr. Fak. Geol., Sophia, 26	Zap. Vses. Mineral. Ob. 119 (5), 71	(Ag,Cu) <sub>10</sub> Pb <sub>2</sub> Bi <sub>8</sub> (S,Se) <sub>19</sub> ; only chemical formula given; very similar to UM1985-10-S:AgBiPb	b,c
UM1988-//S:AsTi	*Naturwissen. 75, 37	Am. Mineral. 74, 1401	Ti <sub>3</sub> AsS <sub>4</sub> ; later described under the name fangite: Am. Mineral. 78 (1993), 1096	a
UM1988-//S:AuBi[1]	Dokl. Earth Sci. 299, 185	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986-//S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
UM1988-//S:AuBi[2]	Izv. Akad. Nauk Kaz. SSR, Ser. Geol., 2, 13	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986-//S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
UM1988-//S:Bi	*Zap. Vses. Mineral. Ob. 117, 691	Am. Mineral. 75, 935	Bi <sub>3</sub> S <sub>5</sub> ; analyses and other properties not distinct from bismuthinite	c
UM1988-//S:CuIrRh	Can. Mineral. 26, 177	Mineral. Petrol. 60, 185	(Ir,Cu,Rh) <sub>2</sub> S <sub>3</sub> ; not distinct from UM1975-15-S:CuIrRh	c
UM1988-//S:FeZn	Can. Mineral. 26, 567		(Fe,Zn)S; later described under the name rudashevskiyite: Am. Mineral. 93 (2008), 902	a
UM1988-//S:PbSb	Can. Mineral. 26, 655		Not compositionally distinct from boulangerite	c
UM1988-//SO:AlHN[1]	Neues Jb. Mineral. Mh. (1988), 476	Zap. Vses. Mineral. Ob. 120 (4), 112	NH <sub>4</sub> Al(SO <sub>4</sub> ) <sub>2</sub> ; later named godovikovite: Zap. Vses. Mineral. Ob. 117 (1988), 208	a
UM1988-//SO:AlHN[2]	Neues Jb. Mineral. Mh. (1988), 476	Zap. Vses. Mineral. Ob. 120 (4), 112	NH <sub>4</sub> Al <sub>3</sub> (SO <sub>4</sub> ) <sub>2</sub> (OH) <sub>6</sub> ; later named ammonioalunite: Am. Mineral. 73 (1988), 145	a
UM1988-//SO:HMgN[1]	Neues Jb. Mineral. Mh. (1988), 476	Zap. Vses. Mineral. Ob. 120 (4), 112	(NH <sub>4</sub> ) <sub>2</sub> Mg(SO <sub>4</sub> ) <sub>2</sub> ·4H <sub>2</sub> O; (NH <sub>4</sub> )-analogue of leonite; product of a burning coal dump	f
UM1988-//SO:HMgN[2]	*Akad. Nauk SSSR, Ural. Otdel (1988), 5	Am. Mineral. 78, 1112	(NH <sub>4</sub> ) <sub>2</sub> Mg(SO <sub>4</sub> ) <sub>2</sub> ·4H <sub>2</sub> O; (NH <sub>4</sub> )-analogue of leonite; product of a burning coal dump; same as UM1988-//SO:HMgN[1]	f,c

UM1988--//SO:HMgN[3]	Neues Jb. Mineral. Mh. (1988), 476	Zap. Vses. Mineral. Ob. 120 (4), 112	(NH <sub>4</sub> ) <sub>2</sub> Mg <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ; later named efremovite: Zap. Vses. Mineral. Ob. 118 (1989) (4), 84	a
UM1988--//SiO:AlCaFeHMgMnTeZn	*Mineral. Zhurn. 10 (5), 11	Am. Mineral. 76, 1440	Phase III; inadequate data; probably a smectite contaminated by submicroscopic tellurates	b,d
UM1988--//SiO:AlCaFeHMgPbTeZn	*Mineral. Zhurn. 10 (5), 11	Am. Mineral. 76, 1440	Phase II; inadequate data; probably a smectite contaminated by submicroscopic lead tellurates	b,d
UM1988--//SiO:AlCaFeHMgZn	*Mineral. Zhurn. 10 (5), 11	Am. Mineral. 76, 1440	Phase I; inadequate data; probably a smectite intermediate between saponite and saucanite	b
UM1988--//SiO:AsFeHMgMn	Am. Mineral. 73, 1182		(Mn,Mg,Fe) <sub>27</sub> As <sub>4</sub> Si <sub>4</sub> O <sub>34</sub> (OH) <sub>25</sub> ; falls within the possible compositional range for mcgovernite	c
UM1988--//SiO:BaMn	Neues Jb. Mineral. Mh. (1988), 377		Qualitative analysis; later described under the name cerchiaraitite: Neues Jb. Mineral. Mh. (2000), 373	a
UM1988--//SiO:CaFNaZr	*Vest. Mosk. Univ. Geol. Ser. (1), 87	Zap. Vses. Mineral. Ob. 119 (5), 71	Na <sub>2</sub> CaZr(Si <sub>2</sub> O <sub>7</sub> )F <sub>2</sub> ; later described under the name burpalite: Eur. J. Mineral. 2 (1990), 177	a
UM1988--//SiO:HMgPb	Medd. Stockh. Univ. Geol. Inst. 273 (4), 1	Zap. Vser. Mineral. Ob. 136 (6), 18	Pb <sub>3</sub> Mg <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> (OH) <sub>2</sub> •3.5H <sub>2</sub> O; "18Å molybdophyllite"; later described under the name britvinite: Zap. Ross. Mineral. Ob. 136 (6) (2007), 18	a
UM1989--//E:FeSi	*Bol. Geol. Miner. 100 (3), 158	Zap. Vses. Mineral. Ob. 120 (4), 111	Si <sub>51.7</sub> Fe <sub>46.9</sub> Al <sub>1.2</sub> ; probably fersilicite	c
UM1989--//O:Bi	Meteoritics 24, 43	Am. Mineral. 75, 1213	Bi <sub>2</sub> O <sub>3</sub> ; inadequate data from sub-micron grains; perhaps bismite	b,c
UM1989--//O:FeRu	*Acta Mineral. Sinica 9, 257	Zap. Vses. Mineral. Ob. 120 (4), 112	(Ru,Fe) <sub>2</sub> O <sub>3</sub> ; inadequate data	b
UM1989--//O:HMn	ICDD 42-1316		MnO <sub>2</sub> •nH <sub>2</sub> O; apparently a hydrated form of ramsdellite.	b
UM1989--//O:Sn[1]	Meteoritics 24, 43	Am. Mineral. 75, 1213	Sn <sub>2</sub> O <sub>3</sub> ; inadequate data from sub-micron grains	b
UM1989--//O:Sn[2]	Meteoritics 24, 43	Am. Mineral. 75, 1213	Sn <sub>3</sub> O <sub>4</sub> ; inadequate data from sub-micron grains	b
UM1989--//O:Ti	Meteoritics 24, 43	Am. Mineral. 75, 1213	Ti <sub>2</sub> O <sub>3</sub> ; inadequate data from sub-micron grains	b
UM1989--//OH:Be	*Dokl. Akad. Nauk SSSR 305, 95	Am. Mineral. 75, 1213	Later described under the name clinobehoitite: Mineral. Zhurn. 11 (1989) (5), 88	a
UM1989--//OH:ClFe	Can. Mineral. 27, 311		Described later under the name hibbingite: Am. Mineral. 79 (1994), 555	a
UM1989--//PO:BiH [1]	*Acta Mineral. Sinica 9 (1), 15	Am. Mineral. 76, 1436	Bi <sub>2</sub> (PO <sub>4</sub> )(OH) <sub>3</sub> ?; inadequate data	b
UM1989--//PO:BiH [2]	*Geochem. 8, 385	Zap. Vses. Mineral. Ob. 120 (4), 112	Appears to be identical UM1989--//PO:BiH[1]	c
UM1989--//S:AgCuPbSb	BRGM Doc. 167, 35		(Ag,Cu) <sub>2</sub> Pb <sub>8</sub> Sb <sub>10</sub> S <sub>24</sub> ; not compositionally distinguishable from owyheeite	c
UM1989--//S:AgIn	Mining Geol. 39, 355	Am. Mineral. 80, 406	Identical to UM1980--//S:AgIn; later described under the name laforêtite: Eur. J. Mineral. 11 (1999), 891	a,c
UM1989--//S:AgPbSb	BRGM Doc. 167, 32		AgPb <sub>2</sub> Sb <sub>3</sub> S <sub>7</sub> ; the same as UM1971--//S:AgPbSb	c
UM1989--//S:AgSbTe	Neues Jb. Mineral. Abh. 160, 299	Am. Mineral. 76, 670	Ag <sub>9</sub> SbTe <sub>2</sub> S <sub>4</sub> ; very likely benleonardite	c
UM1989--//S:AsPb	*C.R. Acad. Sci. Paris. Ser. II, 308, 927	Am. Mineral. 75, 435	Mineral "A"; Pb <sub>5</sub> As <sub>8</sub> S <sub>17</sub> ; later named baumhauerite-2a: Am. Mineral. 75 (1990), 915	a
UM1989--//S:AsPbSbTI	*Geol. Surv. Canada Econ. Geol. Rept. 38	Am. Mineral. 75, 935	Inadequate data; strong compositional similarities to chabournéite	b,c
UM1989--//S:AuBi[1]	*Izv. Akad. Nauk Kaz. SSR Ser. Geol., (1989), 13	Am. Mineral. 75, 434	AuBi <sub>5</sub> S <sub>4</sub> ; same mineral as UM1986-38-S:AuBi	c
UM1989--//S:AuBi[2]	Neues Jb. Mineral. Mh. (1989), 8	Am. Mineral. 75, 434	AuBi <sub>5</sub> S <sub>4</sub> ; same mineral as UM1986-38-S:AuBi	c
UM1989--//S:CuFeInZn	*Mining Geol. 39, 355-372	Am. Mineral. 80, 407	(Zn,Fe) <sub>2</sub> CuInS <sub>4</sub> ; probably not distinct from sakuraiite	c
UM1989--//S:CuFeMoRe	Mineral. Mag. 53, 635	Am. Mineral. 75, 1212	(Re,Mo,Cu,Fe) <sub>2</sub> S <sub>3</sub> ; compositionally indistinguishable from tarkianite & UM1982--//S:CuMoRe	c
UM1989--//S:MnSb	*Geol. Surv. Canada Econ. Geol. Rept. 38	Am. Mineral. 75, 935	Later described under the name clerite: Zap. Vser. Mineral. Ob. 125 (1996) (3), 95	a
UM1989--//SO:BiH[1]	*Acta Mineral. Sinica 9 (1), 15	Am. Mineral. 76, 1436	Bi <sub>2</sub> SO <sub>4</sub> (OH) <sub>4</sub> ; later described under the name cannonite: Mineral. Mag. 56 (1992), 605	a
UM1989--//SO:BiH[2]	*Geochem. 8, 385	Zap. Vses. Mineral. Ob. 120 (4), 112	Appears to be identical UM1989--//SO:BiH[1]	c
UM1989--//SO:HMg	*Vest. Mosk. Univ. Geol. Ser. 44 (5), 73	Am. Mineral. 76, 2025	Mg <sub>3</sub> (SO <sub>4</sub> ) <sub>2</sub> (OH) <sub>2</sub> ; apparently caminitite	c
UM1989--//Sb:Pd	Mineral. Petrol. 40, 289	Am. Mineral. 76, 1438	Pd <sub>2</sub> Sb; appears to be same mineral as UM1974-15-Sb:Pd	c
UM1989--//Si:Fe	*Dokl. Akad. Nauk SSSR 305, 704	Am. Mineral. 76, 301	FeSi <sub>2.3</sub> ; apparently the same as UM1986--//Si:Fe	c
UM1989--//SiO:AlBaMgTi	Am. Mineral. 74, 439		BaMg <sub>2</sub> TiSi <sub>2</sub> Al <sub>2</sub> O <sub>12</sub> ; not distinct from Ti-bearing kinoshitalite	c
UM1989--//SiO:AlCaKMgMnNaSr	Bull. Geol. Surv. S. Africa 93, 1		(K,Na,Sr)(Na,Ca) <sub>1.3</sub> (Mg,Na,Mn) <sub>2</sub> (Mg,Fe,Al) <sub>3</sub> (Si,Al) <sub>12</sub> O <sub>30</sub> ; unit cell dimensions are similar to those of roedderite	c
UM1989--//SiO:CaH	*J. Japan. Assoc. Mineral. Petrol. Econ. Geol. 84, 374	Am. Mineral. 77, 451	Ca <sub>5</sub> Si <sub>6</sub> O <sub>18</sub> •4H <sub>2</sub> O; later described under the name clinotobermorite: Mineral. Mag. 56 (1992), 353	a
UM1989--//SiO:HKNaTi	*Dokl. Akad. Nauk SSSR 307, 114	Am. Mineral. 76, 302	Later described under the name sitinakite: Zap. Vser. Mineral. Ob. 121 (1992) (1), 94	a
UM1989--//Te:AsSb	*Geol. Surv. Canada Econ. Geol. Rept. 38	Am. Mineral. 75, 935	Inadequate data; probably the same as UM1973-24-Te:AgSb	b,c
UM1989--//Te:Pd	*Dokl. Akad. Nauk USSR 306, 430	Am. Mineral. 76, 1438	Pd <sub>8</sub> Te <sub>3</sub> ; not distinguishable from UM1981-31-Te:Pd	c
UM1990--//As:FeIrNiPt	Econ. Geol. 85, 765		Inadequate data	b
UM1990--//As:FeIrNiPtRh	Econ. Geol. 85, 765		Inadequate data	b

<b>UM1990--/As:FeNiSb</b>	Can. Mineral. 28, 503	Am. Mineral. 76, 1436	Ni <sub>7</sub> As <sub>3</sub> ; not distinct from UM1973-01-As:NiPd	c
<b>UM1990--/As:FeOsReRhYTe</b>	Econ. Geol. 85, 921	Mineral. Petrol. 60, 185	No analytical data or formula	b
<b>UM1990--/As:NiPd</b>	Can. Mineral. 28, 489		Pd <sub>1.6</sub> As <sub>1.5</sub> Ni; probably menshikovite	c
<b>UM1990--/As:NiRh[1]</b>	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1438	RhNiAs; same as UM1983-03-As:NiRh	c
<b>UM1990--/As:NiRh[2]</b>	Can. Mineral. 28, 579	Am. Mineral. 76, 1437	RhNiAs; same as UM1983-03-As:NiRh	c
<b>UM1990--/As:Os</b>	Econ. Geol. 85, 921		OsAs <sub>5</sub> ; inadequate data	b
<b>UM1990--/As:OsRu</b>	Econ. Geol. 85, 921		OsRuAs <sub>5</sub> ; inadequate data	b
<b>UM1990--/As:RuTe</b>	Econ. Geol. 85, 921		RuTeAs <sub>5</sub> ; inadequate data	b
<b>UM1990--/AsO:CuFeHPPbSZn</b>	Austral. Mineral. 5, 125		"UK5" - approximate formula Pb <sub>3</sub> (Fe,Cu) <sub>8</sub> (AsO <sub>4</sub> ,SO <sub>4</sub> ,PO <sub>4</sub> ) <sub>4</sub> •20H <sub>2</sub> O?; inadequate data	b
<b>UM1990--/AsO:CuFeHPbZn[1]</b>	Austral. Mineral. 5, 125		"UK3a" - Pb(Fe <sub>0.7</sub> Zn <sub>0.6</sub> Cu <sub>0.5</sub> Al <sub>0.1</sub> )(AsO <sub>4</sub> ) <sub>2</sub> •2H <sub>2</sub> O; inadequate data; perhaps a Cu-bearing mawbyite	b,c
<b>UM1990--/AsO:CuFeHPbZn[2]</b>	Austral. Mineral. 5, 125		"UK3c" - Pb(Fe <sub>1.0</sub> Zn <sub>0.6</sub> Cu <sub>0.2</sub> )(AsO <sub>4</sub> ) <sub>2</sub> •2H <sub>2</sub> O; inadequate data; also perhaps related to mawbyite	b,c
<b>UM1990--/AsO:CuPb</b>	Austral. Mineral. 5, 125		"UK6" - inadequate data	b
<b>UM1990--/AsO:FeHPbZn</b>	Austral. Mineral. 5, 125		"UK3b" - Pb(Fe <sub>1.3</sub> Zn <sub>0.8</sub> Cu <sub>0.1</sub> )(AsO <sub>4</sub> ) <sub>2</sub> •2H <sub>2</sub> O; inadequate data; perhaps intermediate between mawbyite and helmutwinklerite	b
<b>UM1990--/AsS:Ir</b>	Econ. Geol. 85, 765		IrAsS; probably irarsite	c
<b>UM1990--/AsS:OsRh</b>	Econ. Geol. 85, 921		OsRhAsS; inadequate data	b
<b>UM1990--/BO:AIREE</b>	*Rend. Fisiche Accad. Lincei, Ser. 9, 1 159	Am. Mineral. 77, 672	(Ce,Lu)Al <sub>2</sub> B <sub>3</sub> O <sub>9</sub> ; later described under the name peprossiite-(Ce); Eur. J. Mineral. 5 (1993), 53	a
<b>UM1990--/Bi:Pd[1]</b>	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 312, 217	Pd <sub>2</sub> Bi <sub>5</sub> ; inadequately characterised end of compositional range to Pd <sub>5</sub> Bi <sub>4</sub>	b
<b>UM1990--/Bi:Pd[2]</b>	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 312, 217	Pd <sub>5</sub> Bi <sub>4</sub> ; inadequately characterised end of compositional range to Pd <sub>2</sub> Bi <sub>5</sub>	b
<b>UM1990--/Bi:PdSbTe</b>	Can. Mineral. 28, 409	Mineral. Petrol. 60, 185	Pd(Bi,Sb,Te); indistinguishable from UM1976-08-Bi:PdSbTe	c
<b>UM1990--/C:Si</b>	Am. Mineral. 75, 1110		β-SiC; the cubic polymorph of moissanite; same as UM1990-09-C:Si	c
<b>UM1990--/CH:Na</b>	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>2</sub> [C <sub>2</sub> O <sub>4</sub> ]; mineral "M76"; later described under the name natroxalate: Zap. Ross. Mineral. Ob. 125(1) (1996, 126	a
<b>UM1990--/CO:AlCaHY</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK32"; same as UM1979--/CO:AlCaHY; later named micheelsenite: Neues Jb. Mineral Mh (2001), 337	c
<b>UM1990--/CO:BaCaHNaREESrY</b>	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ca,Y,Ce,La)Sr(CO <sub>3</sub> ) <sub>2</sub> •H <sub>2</sub> O; mineral "M5"; same as UM1992-05-CO:CaCeLaNaSr	c
<b>UM1990--/CO:BaCaNaREESr[1]</b>	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ca) <sub>3</sub> (Sr,Ba,REE) <sub>3</sub> [CO <sub>3</sub> ] <sub>5</sub> ; mineral "M3" not clearly distinct from burbankite	c
<b>UM1990--/CO:BaCaNaREESr[2]</b>	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ca) <sub>3</sub> (Sr,Ba,REE) <sub>3</sub> [CO <sub>3</sub> ] <sub>5</sub> ; mineral "M4"; very low analytical total; perhaps related to burbankite but data are inadequate for future recognition elsewhere	b
<b>UM1990--/CO:BaCeF</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK65"; same as the later-described mineral kukharenkoite-(Ce): Can. Mineral. 34 (1996), 107	a
<b>UM1990--/CO:CaHNaSrY</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK37A"; same as UM1986-09-CO:CaHNaSrY	c
<b>UM1990--/CO:Na[1]</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK73"; one of three Na-Carbonates; no X-ray powder data given but said to be distinctive	b
<b>UM1990--/CO:Na[2]</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK73"; a second of three Na-Carbonates; no X-ray powder data given but said to be distinctive	b
<b>UM1990--/CO:Pb</b>	Mineral. Mag. 54, 647	Am. Mineral. 77, 211	PbCO <sub>3</sub> •PbO; considered a product of mine fires but later described from another paragenesis as shannonite: Mineral. Mag. 59 (1995), 305	a
<b>UM1990--/CO:PbREE</b>	Austral. Mineral. 5, 125		"UK12" - inadequate data	b
<b>UM1990--/COF:CaHmMnNa</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK62"; later described under the name rouvilleite: Can. Mineral. 29 (1991), 107	a
<b>UM1990--/COOH:AlFeMgMn</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK58"; probably solid solutions or one or more of caresite-3T, quintinite-3T and chamaraitite-3T	b,c
<b>UM1990--/COHSO:AlCuFeNi</b>	Mineral. Mag. 54, 649	Am. Mineral. 77, 211	Insufficient data; perhaps related to mountkeithite	b,c
<b>UM1990--/E:AlFeMnSi</b>	Dokl. Akad. Nauk UzbSSR (1990) (3), 47	Am. Mineral. 79, 187	(Al,Fe,Si,Mn); X-ray data to show that these intermetallic compounds are distinct from native aluminium, are lacking	b
<b>UM1990--/E:AuPd</b>	Can. Mineral. 28, 687		Au <sub>3</sub> Pd; inadequate data	b
<b>UM1990--/E:CuFePt</b>	Econ. Geol. 85, 765		Inadequate data; perhaps tulameenite.	b,c
<b>UM1990--/E:CuPd</b>	Can. Mineral. 28, 537	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1990--/E:FeNiOsPdPt</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/E:FeNiOsRu</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/E:FeNiPt[1]</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/E:FeNiPt[2]</b>	Econ. Geol. 85, 765		Pt <sub>2</sub> FeNi; probably ferronickelplatinum	c
<b>UM1990--/E:FeNiPtRh</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/E:FePt[1]</b>	Am. Mineral. 75, 881	Mineral. Petrol. 60, 185	Pt <sub>3</sub> Fe; not distinct from isoferroplatinum or perhaps Fe-bearing platinum	c

<b>UM1990--/E:FePt[2]</b>	Econ. Geol. 85, 765		Inadequate data; perhaps tetraferroplatinum	b,c
<b>UM1990--/NbO:CaH</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK56"; same as UM1986-21-NbO:CaH	c
<b>UM1990--/PO:AlCaFeHMgMnNa</b>	Geol. Fören. Förh. 112, 9	Am. Mineral. 75, 1435	Same as UM1985-09-PO:CaFeHMn	c
<b>UM1990--/PO:BaNaSr</b>	*Khomyakov (1990)	Khomyakov (1995)	Ba(Na,Sr) <sub>2</sub> Na[PO <sub>4</sub> ] <sub>2</sub> ; mineral "M58"; well within compositional range for olgite	c
<b>UM1990--/PO:Ca</b>	Austral. Mineral. 5, 125		"UK10" - inadequate data; similarities to brushite	b,c
<b>UM1990--/PO:CePb</b>	Austral. Mineral. 5, 125		"UK11" - inadequate data; perhaps related to rhabdophane group	b,c
<b>UM1990--/PO:Cu</b>	Austral. Mineral. 5, 125		"UK9" - inadequate data	b
<b>UM1990--/PO:FeHPb</b>	Austral. Mineral. 5, 125		"UK2" - inadequate data; later described under the name kintoreite: Mineral. Mag. 59 (1995),143	a,b
<b>UM1990--/PO:FeHZn</b>	Austral. Mineral. 5, 125		"UK1b" inadequate data perhaps Zn-bearing whitmoreite	b,c
<b>UM1990--/PO:LaNa</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK63"; later described under the name nalipoite: Can. Mineral. 29 (1991), 565	a
<b>UM1990--/POSiO:CaCeFSr[1]</b>	*Khomyakov (1990)	Khomyakov (1995)	(Ce,Ca,Sr) <sub>5</sub> (SiO <sub>4</sub> ,PO <sub>4</sub> ) <sub>3</sub> F; mineral "M59"; a high-Sr britholite-(Ce)	c
<b>UM1990--/POSiO:CaCeFSr[2]</b>	*Khomyakov (1990)	Khomyakov (1995)	(Ce,Sr,Ca) <sub>5</sub> (PO <sub>4</sub> ,SiO <sub>4</sub> ) <sub>3</sub> F; mineral "M60"; Sr-rich fluorapatite admixed with britholite	d
<b>UM1990--/S:AgBiCu</b>	Neues Jb. Mineral. Mh. (1990), 193	Am. Mineral. 76, 302	Later described under the name makovickyite: Neues Jb. Mineral. Abh. 168 (1990), 1329	a
<b>UM1990--/S:AgBiCuPb</b>	Neues Jb. Mineral. Mh. (1990), 193	Am. Mineral. 76, 669	Later described under the name mummeite: Neues Jb. Mineral. Mh. (1992), 555	a
<b>UM1990--/S:AgBiPbTe</b>	*Geol. Rudn. Mest. (1990) (3), 65	Am. Mineral. 76, 1436	AuPb <sub>2</sub> BiTe <sub>2</sub> S <sub>3</sub> ; later described under the name buckhornite: Can. Mineral. 30 (1992), 1039	a
<b>UM1990--/S:AuBi[1]</b>	*Geol. Bavarica 95, 133	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986--/S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
<b>UM1990--/S:AuBi[2]</b>	*Zpravodaj MEGA 14 (3), 146	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986--/S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
<b>UM1990--/S:Cu</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK55"; not compositionally distinct from roxbyte or anilite	c
<b>UM1990--/S:CuFeIrNiPdPtRh</b>	Can. Mineral. 28, 579	Am. Mineral. 76, 1437	(Ni,Fe,Ir,Cu,Rh,Pt) <sub>5</sub> ; appears to be same mineral as UM1990-38-S:CuFeIrNiPtRh	c
<b>UM1990--/S:CuIrPtRh</b>	Can. Mineral. 28, 579	Am. Mineral. 76, 1437	Cu(Pt,Rh,Ir) <sub>2</sub> S <sub>4</sub> ; same as UM1981-17-S:CuIrPtRh	c
<b>UM1990--/S:FeIrOs</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/S:FeNa</b>	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>3</sub> Fe <sub>7</sub> S <sub>5</sub> ; mineral "M61" very low analytical total (74%); perhaps a sulphate	b
<b>UM1990--/S:IrPtRh[1]</b>	*Dokl. Akad. Nauk SSSR 312, 1433	Dokl. Earth Sci. 312, 217	(Rh,Ir,Pt) <sub>3</sub> S <sub>4</sub> ; probably not distinct from UM1983--/S:IrPtRh & kingstonite	c
<b>UM1990--/S:IrPtRh[2]</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/S:IrRhSb</b>	Mineral. Petrol. 42, 249	Am. Mineral. 76, 1439	Appears to be rhodian tolovkite	c
<b>UM1990--/S:IrRu</b>	Econ. Geol. 85, 765		Inadequate data	b
<b>UM1990--/S:Re</b>	Econ. Geol. 85, 921		ReS <sub>2</sub> ; inadequate data	b
<b>UM1990--/S:RhSb</b>	Can. Mineral. 28, 503		RhSbS <sub>3</sub> ; inadequate data; probably same mineral as UM1976-16-S:IrRhSb	b,c
<b>UM1990--/SO:AlCHMn</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mn <sub>6</sub> Al <sub>3</sub> (SO <sub>4</sub> ) <sub>2</sub> (CO <sub>3</sub> ) <sub>x</sub> (OH) <sub>17-2x</sub> ·yH <sub>2</sub> O; mineral "UK76"; later equated with shigaite by original authors: Rocks & Minerals 70 (1995), 90; formerly UM1990-45-SO:AlCHMn	a
<b>UM1990--/SO:AlCa</b>	*Mitteilungsbl. Landesmuseums "Joanneum", Abt. Mineral. 58, 15	Am. Mineral. 78, 674	Ca <sub>4</sub> Al <sub>6</sub> O <sub>12</sub> (SO <sub>4</sub> ); probably ye'elimita	c
<b>UM1990--/SO:CuZn</b>	Austral. Mineral. 5, 125		"UK4" - inadequate data; Cu-Zn sulphate with X-ray powder diffraction pattern like parnauite	b,c
<b>UM1990--/Sb:AsBiPdPt</b>	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	(Pd,Pt) <sub>3</sub> (Sb,As,Bi); probably mertieite	c
<b>UM1990--/Sb:AsPd</b>	Can. Mineral. 28, 489		Pd <sub>3</sub> (Sb,As) to Pd <sub>7</sub> (Sb,As) <sub>3</sub> ; not distinguishable from stibiopalladinite, mertieite-I or mertieite-II on available data	b,c
<b>UM1990--/Sb:BiFeNiPdTe</b>	Can. Mineral. 28, 409	Am. Mineral. 76, 1437	(Pd,Fe,Ni)(Sb,Te,Bi); not distinguishable from UM1976-23-Sb:BiPdTe	c
<b>UM1990--/Sb:Pd</b>	Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd <sub>8</sub> Sb <sub>3</sub> ; probably mertieite II	c
<b>UM1990--/Se:Ni</b>	Mineral. Record 21, 133		NiSe <sub>2</sub> ; not distinct from penroseite, the cubic polymorph of kullerudite	c
<b>UM1990--/Se:PdBi</b>	Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	PdBiSe; probably padmaite, described in 1991	c
<b>UM1990--/Si:Fe</b>	*Mineral. Zhurn. 12, (3), 17	Am. Mineral. 77, 212	Fe <sub>2</sub> Si <sub>5</sub> ; appears to be the same as UM1986-58-Si:Fe	c
<b>UM1990--/SiO:AlCaFeHKMgMnNaTi</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK29"; same as UM1979-20-SiO:AlCaFeHKMgMnNaTi	c
<b>UM1990--/SiO:AlCaFeHKMnNaTi</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK38"; same as UM1986-60-SiO:AlCaFeHKMnNaTi	c
<b>UM1990--/SiO:AlCaHKNa</b>	*Khomyakov (1990)	Khomyakov (1995)	(K,Ca,Na) <sub>2</sub> [Al <sub>4</sub> Si <sub>8</sub> O <sub>24</sub> ]·11H <sub>2</sub> O mineral "M13"; later described under the name gmelinite-K:	a
<b>UM1990--/SiO:AlFeHNaTi</b>	*Khomyakov (1990)	Khomyakov (1995)	Na(Ti,Fe <sup>3+</sup> ) <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (OH)·H <sub>2</sub> O; mineral "M48"; later described under the name paravinoogradovite: Can. Mineral. 41 (2003), 989	a
<b>UM1990--/SiO:AlHK</b>	*Khomyakov (1990)	Khomyakov (1995)	K <sub>2</sub> Al <sub>2</sub> Si <sub>3</sub> O <sub>10</sub> ·3H <sub>2</sub> O; mineral "M12"; an anthropogenetically K-exchanged paranatrolite	f
<b>UM1990--/SiO:BBeCaFeHREEY</b>	*Rend. Fisiche Accad. Lincei, Ser. 9, 1 159	Am. Mineral. 77, 672	Ca <sub>2</sub> Fe <sup>3+</sup> (Y,Ce,Nd) <sub>2</sub> B <sub>2</sub> BeSi <sub>4</sub> O <sub>15</sub> (OH) <sub>7</sub> ; apparently the same as calcybeborosilite-(Y)	c
<b>UM1990--/SiO:BBeCaHY</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK48"; same as UM1986-61-SiO:BBeCaHY	c
<b>UM1990--/SiO:BNa</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK53A"; transferred to valid file as a malinkoite polymorph	c



UM1990--//SiO:BNa	*Khomyakov (1990)	Khomyakov (1995)	NaBSiO <sub>4</sub> ; mineral "M65"; described later under the name malinkoite: Zap. Vseross. Mineral. Ob. 129 (6) (2000), 35	c
UM1990--//SiO:BNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK53A"; later described under the name malinkoite: Zap. Vser. Mineral. Ob. 129 (6) (2000) (6), 35	a
UM1990--//SiO:BaCaFFeHMnNaSrTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>2</sub> (Ba,Sr,Ca) <sub>2</sub> (Fe,Mn)TiSi <sub>2</sub> O <sub>9</sub> (F,OH) <sub>2</sub> •2H <sub>2</sub> O; mineral "M74"; later described under the name busenite: Zap. Vses. Mineral. Ob. 130, 50	a
UM1990--//SiO:BaCaFHMnNaNbSrTi	*Khomyakov (1990)	Eur. J. Mineral. 21, 251	Ba-bearing titanio-niobosilicate; mineral "M73"; later described under the name nechelyustovite: Eur. J. Mineral. 21 (2009), 251	a
UM1990--//SiO:BaCeFeHKNaTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>2</sub> (Ba,K) <sub>6</sub> Ce <sub>2</sub> Fe <sup>2+</sup> Ti <sub>3</sub> [Si <sub>3</sub> O <sub>9</sub> ] <sub>3</sub> [SiO <sub>3</sub> OH] <sub>3</sub> (OH,H <sub>2</sub> O) <sub>9</sub> ; mineral "M30"; later described under the name diversilite-(Ce): Zap. Vseross. Mineral. Ob. 132 (5) (2003), 34	a
UM1990--//SiO:BaFHMnNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	Ba(Na,Ba) <sub>3</sub> Na <sub>3</sub> Ti <sub>3</sub> Si <sub>4</sub> O <sub>16</sub> (OH,F) <sub>2</sub> ; mineral "M54"; not distinct from nabalamprophyllite	c
UM1990--//SiO:BaFHKMnNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	(Na,K) <sub>4</sub> (Ba,Sr)(Ti,Nb,Mn) <sub>3</sub> Si <sub>4</sub> O <sub>17</sub> F•4H <sub>2</sub> O; mineral "M72"; described later under the name bykovaite: Zap. Vseross. Mineral. Ob. 134 (5), 40	a
UM1990--//SiO:BaNbTi	*Kristallografiya 35, 346	Am. Mineral. 76, 670	Ba <sub>3</sub> TiNb <sub>4</sub> Si <sub>4</sub> O <sub>23</sub> ; later described under the name belkovite: Neues Jb. Mineral. Mh. (1986), 67	a
UM1990--//SiO:CCeHNaThTi	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ce,Th,Ti,Si,C) <sub>x</sub> O <sub>y</sub> •nH <sub>2</sub> O; mineral "M32"; data do not meet the requirements for definition of a mineral	f
UM1990--//SiO:CaClFHKNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK57"; UM1986--//SiO:CaClFHKNa (probably fedorite)	c
UM1990--//SiO:CaClHMnNaZr	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>16</sub> Ca <sub>5</sub> Mn <sub>2</sub> (Zr,Nb) <sub>3</sub> Si <sub>2</sub> O <sub>66</sub> (OH) <sub>6</sub> Cl; mineral "M38", a thesis analysis; not distinct from UM1998-21-SiO:CaCeClHMnNaZr or perhaps UM2006-28-SiO:CaHMnNaZr	c
UM1990--//SiO:CaFFeMnNaNbTiZr	Mineral. Record 21, 363	Am. Mineral. 76, 302	NaCa(Mn,Fe)(Ti,Nb,Zr)Si <sub>2</sub> O <sub>7</sub> (O,F) <sub>2</sub> ; mineral "UK59"; later named normandite: Can. Mineral. 35 (1997), 1035. Formerly coded as UM1990-65-SiO:CaFFeMnNaNbTiZr	a
UM1990--//SiO:CaFeMnNaTiYZr[1]	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>7</sub> Ca(Mn,Fe,Zr,Ti,Y)Si <sub>6</sub> O <sub>18</sub> ; mineral "M44"; inadequate data - no analysis, unit cell or X-ray powder pattern	b
UM1990--//SiO:CaFeMnNaTiYZr[2]	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>7</sub> Ca(Fe,Mn,Zr,Ti,Y)Si <sub>6</sub> O <sub>18</sub> ; mineral "M45"; inadequate data - no analysis, unit cell or X-ray powder pattern	b
UM1990--//SiO:CaFeNaNbTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK74"; X-ray powder diffraction and cell data; later named lintisite: Zap. Vses. Mineral. Ob. 119 (1990) (3), 76. Formerly coded as UM1990-68-SiO:CaFeNaNbTi	a
UM1990--//SiO:CaHNaNbSrTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>2</sub> (Ca,Sr)(Nb,Ti) <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (O,OH) <sub>4</sub> •3H <sub>2</sub> O; mineral "M70"; data presented do not allow distinction from nenadkevichite	c
UM1990--//SiO:CaHNaTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK61"; Na <sub>1-2</sub> Ca <sub>2</sub> Ti <sub>3</sub> Si <sub>8</sub> O <sub>24</sub> (OH) <sub>1-2</sub> •5H <sub>2</sub> O; later described under the name haineaultite: Can. Mineral. 42 (2004), 769	a
UM1990--//SiO:Ce	*Khomyakov (1990)	Khomyakov (1995)	Ce <sub>2</sub> Si <sub>6</sub> O <sub>15</sub> ; mineral "M29"; the same as UM1979-22-SiO:CeLaNd	c
UM1990--//SiO:CeFHNasrTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>4</sub> SrCeTiSi <sub>8</sub> (O,OH,F) <sub>24</sub> •4H <sub>2</sub> O; mineral M31; later described under the name seidite-(Ce): Zap. Vseross. Mineral. Ob. 127 (2000), 94	a
UM1990--//SiO:CuZn	Austral. Mineral. 5, 125		"UK8" - inadequate data	b
UM1990--//SiO:FHNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>10</sub> MnTi <sub>3</sub> Nb <sub>3</sub> (Si <sub>2</sub> O <sub>7</sub> ) <sub>6</sub> (OH) <sub>2</sub> F•12H <sub>2</sub> O mineral "M75"; described later under the name shkatulkaite: Zap. Vseross. Mineral. Ob. 125 (1) (1996), 120	a
UM1990--//SiO:FHNaZr	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK69"; Na <sub>2</sub> Zr <sub>2</sub> Si <sub>7</sub> O <sub>18</sub> (OH,F) <sub>2</sub> •8H <sub>2</sub> O; described later under the name bobtrillite: Can. Mineral. 43 (2005), 747	a
UM1990--//SiO:FeHKMnNa[1]	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK52"; same as UM1986-63-SiO:FeHKMnNa	c
UM1990--//SiO:FeHKMnNa[2]	*Khomyakov (1990)	Khomyakov (1995)	(Na,K) <sub>6</sub> (Mn <sup>2+</sup> ,Fe <sup>2+</sup> ,Fe <sup>3+</sup> ) <sub>3</sub> Si <sub>9</sub> O <sub>24</sub> •6H <sub>2</sub> O; mineral "M20"; not the Fe-analogue of shafranovskite because Fe <sup>2+</sup> is not dominant	c
UM1990--//SiO:FeHNa	*Khomyakov (1990)	Khomyakov (1995)	NaH <sub>2</sub> Fe <sup>3+</sup> Si <sub>3</sub> O <sub>9</sub> •nH <sub>2</sub> O; mineral "M21"; inadequate data; compositionally similar to tuperssuatsiaite	b
UM1990--//SiO:FeHNaTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>3</sub> (Fe <sup>2+</sup> ,Fe <sup>3+</sup> ) <sub>6</sub> Ti <sub>2</sub> Si <sub>12</sub> O <sub>35</sub> (OH) <sub>2</sub> •6H <sub>2</sub> O; mineral "M71"; described later under the name nafertisite: Zap. Vseross. Mineral. Ob. 124 (6) (1995), 101	a
UM1990--//SiO:FeHNaZr	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>5</sub> FeZr <sub>2</sub> Si <sub>6</sub> O <sub>20</sub> •8H <sub>2</sub> O; mineral "M36"; same as UM1967-13-SiO:FeHNaZr	c
UM1990--//SiO:HKMnNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	(Na,H <sub>3</sub> O,K) <sub>7-x</sub> Mn(Ti,Nb)Si <sub>10</sub> O <sub>26</sub> (OH) <sub>x</sub> •4H <sub>2</sub> O; mineral "M66"; described later under the name intersilite: Zap. Vseross. Mineral. Ob. 125 (4) (1996), 79	a
UM1990--//SiO:HLiNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK81"; later described under the name silinaite: Can. Mineral. 29 (1991), 359	a
UM1990--//SiO:HMnNaZn	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK84"; later described under the name gaultite: Can. Mineral. 32 (1994), 855	a
UM1990--//SiO:HMnNaZr[1]	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>2</sub> MnZrSi <sub>4</sub> O <sub>12</sub> •6H <sub>2</sub> O; mineral "M35"; same as UKI-1967-(SiO:HMnNaZr)	c
UM1990--//SiO:HMnNaZr[2]	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>6-x</sub> (Mn <sup>2+</sup> ,Mn <sup>4+</sup> ,Ca) <sub>x-1</sub> ZrSi <sub>6</sub> (O,OH) <sub>18</sub> ; mineral "M40"; compositionally and in most other respects, very similar to zirsinalite	c
UM1990--//SiO:HNAREETiY	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>5</sub> (Y,REE)(Ti,Nb)Si <sub>6</sub> O <sub>18</sub> •6H <sub>2</sub> O; mineral "M67"; described later under the name pyatenkoite-(Y): Zap. Vseross. Mineral. Ob. 125 (4) (1996), 72	a
UM1990--//SiO:HNaTi	*Khomyakov (1990)	Khomyakov (1995)	Na <sub>4</sub> Ti <sub>2</sub> Si <sub>8</sub> O <sub>22</sub> •5H <sub>2</sub> O; mineral "M68"; described later under the name penkviksite-1M: Am. Mineral. 79 (1994), 1185.	a
UM1990--//SiO:HNaZr	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ca) <sub>2</sub> Zr <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (OH,O) <sub>3</sub> H <sub>2</sub> O; mineral "M34"; same as UKI-1975-(SiO:HNaZr)	c
UM1990--//SiO:KNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	(K,Na) <sub>3</sub> TiNbSi <sub>4</sub> O <sub>14</sub> ; minerals "M51" & "M69"; not distinct from lemmleinite-K	c

<b>UM1990-//SiPO:CaCeFHNa</b>	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK64"; later described under the name phosinaite. Can. Mineral. 34 (1996), 107	a
<b>UM1990-//Te:BiPd</b>	Can. Mineral. 28, 489		Pd <sub>8</sub> Bi <sub>6</sub> Te <sub>3</sub> ; probably the same as UM1982-05-Bi:BiPdTe	c
<b>UM1991-//As:FePtS</b>	Mineral. Petrol. 43, 181		(Fe,Pt)(As,S); inadequate data	b
<b>UM1991-//As:IrPt</b>	*Dokl. Akad. Nauk SSSR 320, 705	Am. Mineral. 78, 673	(Pt,Ir) <sub>2</sub> (As,S) <sub>3</sub> ; appears to be Ir-bearing variety of UM1991-03-As:PtRhS	c
<b>UM1991-//As:OsRuTe</b>	Mineral. Petrol. 43, 181		(Ru,Os)(As,Te); inadequate data - possibly Te-bearing anduoite	b,c
<b>UM1991-//AsTe:Ru</b>	Mineral. Petrol. 43, 181		RuAsTe; inadequate data - only formula	b
<b>UM1991-//AsO:CaHMn</b>	Aufschluss 42, 1	Am. Mineral. 78, 675	Later described under the name sailaufite. Eur. J. Mineral. 15 (2003), 555	a
<b>UM1991-//AsO:HMgU</b>	*Acta Cryst. C47, 2013	Am. Mineral. 78, 453	Same as UM1963-01-:AsO:MgU; later described under the name seelite. Mineral. Record 24 (1993), 463	a
<b>UM1991-//CH:CaHO</b>	*Casopsis Mineral. Geol. 36, 77	Am. Mineral. 77, 450	C <sub>4</sub> H <sub>6</sub> CaO <sub>4</sub> •H <sub>2</sub> O; product of burning coal dump; (see also ICDD 30-221)	f
<b>UM1991-//CO:BaMn</b>	*J. Mineral. Soc. Japan 18, 347	Zap. Vses. Mineral. Ob. 122 (5), 64	BaMn(CO <sub>3</sub> ) <sub>2</sub> ; appears to be the same as UM1988-01-CO:BaMn	c
<b>UM1991-//CO:CaREEY</b>	*Dokl. Akad. Nauk SSSR 326, 883	Am. Mineral. 79, 188	Ca <sub>4</sub> (Y <sub>0.8</sub> REE <sub>0.2</sub> ) <sub>3</sub> (CO <sub>3</sub> ) <sub>8</sub> (OH)•2H <sub>2</sub> O; probably kamphaugite described later	c,a
<b>UM1991-//COF:BaCaCe</b>	*Acta Petrol. Mineral. 10, 246	Am. Mineral. 77, 1118	(Ca <sub>0.5</sub> □ <sub>0.5</sub> )BaCe <sub>2</sub> (CO <sub>3</sub> ) <sub>4</sub> F; apparently identical to cordylite-(Ce)	c
<b>UM1991-//COF:CaCe</b>	*Acta Mineral. Sinica 11, 193	Am. Mineral. 79, 188	10 mixed-layer bastrnäsité/synchysisite polytypes; without any compositional data	b
<b>UM1991-//COF:CaMnNa[1]</b>	*Moscow Univ. Geol. Bull. 46 (5), 74		Na <sub>3</sub> Ca(Mn,Ca)(CO <sub>3</sub> ) <sub>3</sub> F; described the same year as rouvilleite. Can. Mineral. 29 (1991), 107	a,c
<b>UM1991-//COF:CaMnNa[2]</b>	*Kristallografiya 36, 30	Am. Mineral. 77, 450	Na <sub>3</sub> Ca(Mn,Ca)(CO <sub>3</sub> ) <sub>3</sub> F; same as UM1991-//COF:CaMnNa[1]	c
<b>UM1991-//E:FePt</b>	*Dokl. Akad. Nauk SSSR 317, 1458	Zap. Vser. Mineral. Ob. 122 (5), 64	Fe <sub>3</sub> Pt; not distinct from UM1984-18-E:FeNiPt; formerly coded as UM1991-07-E:FePt	c
<b>UM1991-//O:HMn</b>	Dokl. Akad. Nauk SSSR 319, 722	Zap. Vser. Mineral. Ob. 122 (5), 64	A 9.8 Å manganese oxide; inadequate data, perhaps a variety of buserite	b,c
<b>UM1991-//OH:ClFe</b>	Can. Mineral. 29, 239	Am. Mineral. 77, 672	FeCl(OH) <sub>3</sub> ; apparent the same as UM1989-//OH:ClFe (=hibbingite)	c
<b>UM1991-//S:AgBiCuPbSe</b>	Mineral. Petrol. 44, 89		(Cu,Ag) <sub>3</sub> (Bi,Pb) <sub>7</sub> (S,Se) <sub>12</sub> ; indistinguishable from UM1986-32-S:AgBiCuPbSe	c
<b>UM1991-//S:AgCuPd</b>	Mineral. Petrol. 43, 181		Pd <sub>2</sub> (Cu,Ag) <sub>2</sub> S <sub>3</sub> ; identical to UM1989-17-S:AgCuPd	c
<b>UM1991-//S:AsCoFeNi</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (4), 51	Am. Mineral. 79, 1213	(Co,Ni,Fe,Cu)AsS; not distinguishable from glaucodot; see also UM1963-//S:AsCoNi	c
<b>UM1991-//S:AsCu</b>	Novye Dannye Mineral. 37, 81	Am. Mineral. 80, 849	Cu <sub>3</sub> AsS <sub>3</sub> ?; inadequate data; perhaps mgriite	b,c
<b>UM1991-//S:AsPt</b>	Mineral. Petrol. 43, 181		PtAs <sub>2</sub> S <sub>4</sub> ; identical to UM1989-20-S:AsPt	c
<b>UM1991-//S:AuBi</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	Bi <sub>5</sub> AuS <sub>4</sub> ; probably same as UM1986-38-S:AuBi	c
<b>UM1991-//S:AuBiPb[1]</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Pb) <sub>5</sub> AuS <sub>4</sub> ; probably same as UM1986-38-S:AuBi	c
<b>UM1991-//S:AuBiPb[2]</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Au,Pb) <sub>6</sub> S <sub>4</sub> ; probably same as UM1986-38-S:AuBi	c
<b>UM1991-//S:AuBiPb[3]</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Au,Pb) <sub>6</sub> S <sub>3</sub> ; probably same as UM1991-13-S:AuBiPb	c
<b>UM1991-//S:CuFeMoRe</b>	Eur. J. Mineral. 3, 977	Am. Mineral. 77, 1117	(Cu,Fe)(Re,Mo) <sub>4</sub> S <sub>8</sub> ; same as UM1982-//S:CuMoRe; later described under the name tarkianite. Can. Mineral. 42 (2004), 539	a,c
<b>UM1991-//S:CuFeZn</b>	*Acta Mineral. Sinica 11 (1) 78	Am. Mineral. 78, 453	(Zn,Fe,Cu) <sub>5</sub> ; anisotropic - probably same as UM1989-24-S:CuFeZn	c
<b>UM1991-//S:FeRh</b>	*C. R. Acad. Sci. Paris, Ser. II, 312, 55	Am. Mineral. 76, 1733	FeRh <sub>2</sub> S <sub>4</sub> ; later described under the name ferrododsité. Zap. Vser. Mineral. Ob. 127 (1998) (5), 37	a
<b>UM1991-//S:IrPtRh</b>	Can. Mineral. 29, 419		(Rh,Ir,Pt) <sub>3</sub> S <sub>4</sub> ; appears to be the same mineral as UM1983-//S:IrPtRh & kingstonite	c
<b>UM1991-//STe:CuFePdSn</b>	Mineral. Petrol. 43, 181		Pd <sub>5</sub> (Cu,Fe)SnTe <sub>2</sub> S; inadequate data - formula only	b
<b>UM1991-//SO:HCuZn</b>	J. Russel Soc. 4 (1), 13	Am. Mineral. 78, 674	(Zn,Cu) <sub>5</sub> (SO <sub>4</sub> ) <sub>2</sub> (OH) <sub>6</sub> •6H <sub>2</sub> O; the Zn-analogue of ktenasite and apparently the same mineral as UM1979-18-SO:CuHZn	c
<b>UM1991-//Sb:BiPtSn</b>	Mineral. Zhurn. 13 (1), 31	Am. Mineral. 78, 233	Pt <sub>3</sub> (Sb,Sn,Bi) <sub>4</sub> ; inadequate data: heavy analytical contamination	b
<b>UM1991-//Se:BiCuPb</b>	*Novye Dannye Mineral. 37, 81	Am. Mineral. 80, 848	Inadequate data from impure material; perhaps S-free soucekite	b,c
<b>UM1991-//SiO:AlCHN</b>	*Dokl. Akad. Nauk SSSR 317, 884	Am. Mineral. 77, 1118	[N(CH <sub>3</sub> ) <sub>4</sub> ][Si <sub>2</sub> (Si <sub>0.5</sub> Al <sub>0.5</sub> O) <sub>6</sub> ] <sub>2</sub> ; later described under the name tsaregorodtsevitse. Zap. Vser. Mineral. Ob. 122 (1993) (1), 128	a
<b>UM1991-//SiO:AlCHNa</b>	*Moscow Univ. Geol. Bull., 46 (5), 74	Am. Mineral. 78, 235	Na <sub>7</sub> [Si <sub>7.2</sub> Al <sub>4.8</sub> O <sub>24</sub> ](CO <sub>3</sub> ) <sub>1.2</sub> •3H <sub>2</sub> O; later described under the name cancrisilite. Zap. Vser. Mineral. Ob. 120 (1991) (6), 80	a
<b>UM1991-//SiO:BNa</b>	*Dokl. Akad. Nauk SSSR 319, 879	Zap. Vses. Mineral. Ob. 122 (5), 64	NaBSiO <sub>4</sub> ; appears to be the same as UM1990-64-SiO:BNa	c
<b>UM1991-//SiO:BaFeMnTi</b>	*Soviet Phys. Cryst. 36 (2), 186	Am. Mineral. 77, 451	Ba(Mn,Fe) <sub>2</sub> TiSi <sub>2</sub> O <sub>7</sub> (O,H) <sub>2</sub> ; later named hejtmannite. Eur. J. Mineral. 4 (1992), 35; intergrown and polymorphous with UM1989-33-SiO:BaHMnTi	a
<b>UM1991-//SiO:FeHKMnNaTi</b>	*Kristallografiya 36, 892.	Am. Mineral. 77, 673	Na <sub>4</sub> K <sub>3</sub> (Fe,Mn,Ti) <sub>2</sub> Si <sub>8</sub> O <sub>20</sub> (OH) <sub>4</sub> •4H <sub>2</sub> O; later described under the name ershovite. Zap. Vser. Mineral. Ob. 122 (1993) (1), 116	a
<b>UM1991-//SiO:HMnSr</b>	*Ber. dtshch. Mineral. Gesell.	Zap. Vses. Mineral. Ob. 122 (5), 64	SrMn <sub>2</sub> [Si <sub>2</sub> O <sub>7</sub> ](OH) <sub>2</sub> •2H <sub>2</sub> O; later described under the name hennomartinite. Schweiz. Mineral. Petrog. Mitt. 73 (1993), 349	a
<b>UM1991-//Te:Bi</b>	*Acta Geol. Sinica 65, 127	Can. Min. 45, 665	Bi <sub>2</sub> Te; presumably the same as UM1980-16-Te:Bi	c

<b>UM1991-//Te:BiPd</b>	Mineral. Petrol. 43, 181		PdBiTe <sub>2</sub> ; inadequate data - formula only	b
<b>UM1991-//Te:BiSSe</b>	*Geol. Surv. Finland. Sp. Paper 12, 81	Can. Min. 45, 665	Bi <sub>2</sub> (Te,Se); probably not distinct from UM1980-16-Te:Bi	c
<b>UM1991-//Te:Pd</b>	Mineral. Petrol. 43, 181		Pd <sub>8</sub> Te <sub>3</sub> ; apparently identical to UM1989-//Te:Pd	c
<b>UM1992-//As:NiRh</b>	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Rh,Ru)(Ni,Fe)(As,Sb); probably the same as UM1983-03-As:NiRh	c
<b>UM1992-//As:Pd[1]</b>	Can. Mineral. 30, 121	Am. Mineral. 77, 1307	Pd <sub>5</sub> As <sub>2</sub> ; same as UM1975-05-As:Pd	c
<b>UM1992-//As:Pd[2]</b>	Dokl. Bolg. Akad. Nauk 45, 37	Am. Mineral. 79, 37	Pd <sub>4</sub> As <sub>3</sub> ; not distinguishable from UM1984-07-As:Pd	c
<b>UM1992-//CO:CaHREEY</b>	*Dokl. Akad. Nauk SSSR 326, 883	Am. Mineral. 79, 188	Ca <sub>4</sub> (Y <sub>0.8</sub> REE <sub>0.2</sub> ) <sub>3</sub> (CO <sub>3</sub> ) <sub>8</sub> (OH)·2H <sub>2</sub> O; unsatisfactory data; perhaps kamphaugite-(Y)	b,c
<b>UM1992-//COPO:NaSr</b>	*Dokl. Akad. Nauk SSSR 322, 531	Am. Mineral. 78, 235	Na <sub>3</sub> Sr(PO <sub>4</sub> )(CO <sub>3</sub> ); later described under the name crawfordite: Zap. Vser. Mineral. Ob. 123 (1994) (3), 41	a
<b>UM1992-//COSO:BaCIFHNaREE</b>	*Soviet Phys. Cryst. 37, 753	Am. Mineral. 79, 189	Na <sub>25</sub> BaREE <sub>2</sub> (CO <sub>3</sub> ) <sub>11</sub> (HCO <sub>3</sub> ) <sub>4</sub> (SO <sub>4</sub> ) <sub>2</sub> F <sub>2</sub> Cl; described later under the name mineevite-(Y): Zap. Vser. Mineral. Ob. 121 (1992) (6), 138	a
<b>UM1992-//E:AuCu</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:AuCuPd</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:AuCuPt</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:AuCuPdPt</b>	Austral. J. Earth Sci. 39, 389		(Pd,Pt,Au) <sub>2</sub> Cu; same as UM1992-07-E:AuCuPdPt	c
<b>UM1992-//E:AuPbSn</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:AuPd</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:AuPdPtSn</b>	Eur. J. Mineral. 4, 683	Mineral. Petrol. 60, 185	Only qualitative compositional information	b
<b>UM1992-//E:CuPdSn</b>	Mineral. Petrol. 46, 85	Mineral. Petrol. 60, 185	(Pd,Cu) <sub>3</sub> Sn, same as UM1970-//E:CuPdSn	c
<b>UM1992-//E:CuPtSb</b>	Mineral. Zhurn. 14 (2), 12	Am. Mineral. 80, 406	Pt(Cu,Sb) <sub>3</sub> ; probably a Sb-bearing variety of UM1986-17-E:CuPt	c
<b>UM1992-//O:BaHTiV</b>	*Soviet Phys. Cryst. 37, 311	Am. Mineral. 79, 188	Ba(Ti,V,Cr,Fe,Mg,Al) <sub>8</sub> (O,OH) <sub>16</sub> ; only c cell dimension (5x) differs significantly from ankangite	b
<b>UM1992-//O:CaFe</b>	*Chesnokov et al. (1992),126	Eur. J. Mineral. 17, 623	CaFe <sub>4</sub> O <sub>7</sub> ; from burning coal dumps; not a legitimate mineral	f
<b>UM1992-//O:FeIrPtRh</b>	Explor. Mining Geol. 5, 73		(Ir,Fe,Rh,Pt) <sub>2</sub> O <sub>2</sub> ; not distinct from UM1992-13-O:IrPt	c
<b>UM1992-//O:Ir</b>	Austral. J. Earth Sci. 39, 389	Am. Mineral. 78, 1110	IrO <sub>2</sub> ; same as UM1992-13-O:IrPt	c
<b>UM1992-//PO:AlFe</b>	Mineral. Record 23 (4), 4		Fe, Al & P present; weak diffraction pattern; inadequate data	b
<b>UM1992-//S:AgCuPd[1]</b>	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	(Pd,Ag,Cu) <sub>4</sub> S <sub>3</sub> ; same mineral as UM1989-17-S:AgCuPd	c
<b>UM1992-//S:AgCuPd[2]</b>	Internat. Geol. Rev. 34, 503	Mineral. Petrol. 60, 185	(Pd,Ag,Cu) <sub>4</sub> S <sub>3</sub> ; probably same as UM1989-17-S:AgCuPd	c
<b>UM1992-//S:AuBi</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1991) (3), 63	Am. Mineral. 79, 1212	Bi <sub>5</sub> AuS <sub>4</sub> ; appears to be the same mineral as UM1986-38-S:AuBi	c
<b>UM1992-//S:AuBiPb[1]</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1991) (3), 63	Am. Mineral. 79, 1212	(Bi,Pb) <sub>5</sub> AuS <sub>4</sub> ; appears to be a Pb-bearing variety of UM1986-38-S:AuBi	c
<b>UM1992-//S:AuBiPb[2]</b>	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1991) (3), 63	Am. Mineral. 79, 1212	(Bi,Au,Pb) <sub>6</sub> S <sub>3</sub> ; probably not distinct from UM1991-13-S:AuBiPb	c
<b>UM1992-//S:AuCuOsPdPtRh</b>	Austral. J. Earth Sci. 39, 389		(Pt,Cu,Pd,Rh,Os,Au,Ir,Ni) <sub>3</sub> S <sub>2</sub> ; same as UM1992-26-S:CuOsPdPtRh	c
<b>UM1992-//S:BiFeRhSb</b>	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Rh,Fe)(Sb,Bi) <sub>3</sub> S; probably same as UM1976-16-S:IrRhSb & UM1992-//S:IrPtRhSb	b,c
<b>UM1992-//S:Cu</b>	*Dokl. Akad. Nauk SSSR 323, 1170	Am. Mineral. 79, 187	Cu <sub>1.96</sub> S; possibly a metastable tetragonal polymorph of djurite but phase disappeared after 6 years in storage	b,c
<b>UM1992-//S:CuFeInZn</b>	Mining Geol. 39, 355	Am. Mineral. 80, 407	Same as UM1980-//S:CuFeInZn (=sakuraiite)	c
<b>UM1992-//S:CuFePdSnTe[1]</b>	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	(Pd,Cu,Pt,Fe) <sub>9</sub> Sn(Te,S) <sub>4</sub> ; not compositionally distinct from oulankaite	c
<b>UM1992-//S:CuFePdSnTe[2]</b>	*Dokl. Akad. Nauk SSSR 323, 539	Am. Mineral. 79, 390	(Pd,Cu,Pt,Fe,Ag) <sub>9</sub> Sn(Te,S) <sub>4</sub> ; not compositionally distinct from oulankaite	c
<b>UM1992-//S:CuGeW</b>	Ann. Geol. Penins. Balk. 57, 301	Zap. Vser. Mineral. Ob. 125 (6), 88	Cu <sub>6</sub> GeWS <sub>8</sub> ; later described under the name catamarcaite: Can. Mineral. 44 (2006), 1481	a
<b>UM1992-//S:CuNiPdPt</b>	Austral. J. Earth Sci. 39, 389		(Pd,Pt) <sub>3</sub> (Cu,Ni) <sub>2</sub> S <sub>2</sub> ; same as UM1992-27-S:CuPdPt & UM1992-//S:CuPdPt	c
<b>UM1992-//S:CuNiPdPtRh</b>	Austral. J. Earth Sci. 39, 389	Am. Mineral. 78, 1110	(Rh,Ir)(Pt,Pd)(Cu,Ni) <sub>4</sub> S <sub>4</sub> ; inadequate data - probably cuprorhodsite	b,c
<b>UM1992-//S:CuOsPdPtRh</b>	Austral. J. Earth Sci. 39, 389		(Pt,Pd,Rh) <sub>3</sub> S <sub>2</sub> ; same as UM1992-26-S:CuOsPdPtRh	c
<b>UM1992-//S:CuPdPt</b>	Austral. J. Earth Sci. 39, 389	Am. Mineral. 78, 1110	(Pd,Pt) <sub>3</sub> (Cu,Ni) <sub>2</sub> S <sub>2</sub> ; same as UM1992-27-S:CuPdPt	c
<b>UM1992-//S:CuPdPtRh</b>	Austral. J. Earth Sci. 39, 389	Am. Mineral. 78, 1110	(Pd,Pt) <sub>2</sub> RhCuS <sub>4</sub> ; same as UM1992-28-S:CuPdPtRh	c
<b>UM1992-//S:FeNiRh</b>	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Ni,Fe,Rh) <sub>3</sub> S; probably same mineral as UM1990-38-S:CuFeIrNiPtRh	c
<b>UM1992-//S:IrPtRhSb</b>	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Rh,Pt,Ir,Fe) <sub>3</sub> SbS; probably same as UM1976-16-S:IrRhSb	c
<b>UM1992-//S:IrRhSb</b>	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Rh,Ir) <sub>3</sub> SbS; probably same mineral as UM1976-16-S:IrRhSb & UM1992-//S:BiFeRhSb	c
<b>UM1992-//S:Pd</b>	Austral. J. Earth Sci. 39, 389	Am. Mineral. 78, 1110	Pd <sub>4</sub> S; same as UM1992-29-S:Pd	c
<b>UM1992-//S:PdPt</b>	Austral. J. Earth Sci. 39, 389		(Pd,Pt) <sub>2</sub> S; same as UM1992-30-S:PdPt	c
<b>UM1992-//Sb:AsPd[1]</b>	Can. Mineral. 30, 121	Am. Mineral. 78, 1111	Pd <sub>2</sub> (Sb,As); appears to be an As-bearing variety of UM1974-15-Sb:Pd	c
<b>UM1992-//Sb:AsPd[2]</b>	*Russian Geol. Geophys. 33 (1), 87	Am. Mineral. 78, 1111	Pd <sub>2</sub> (Sb,As); appears to be an As-bearing variety of UM1974-15-Sb:Pd	c
<b>UM1992-//Sb:Pd[1]</b>	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	Pd <sub>8</sub> Sb <sub>3</sub> ; not compositionally distinct from mertieite-II	c
<b>UM1992-//Sb:Pd[2]</b>	Internat. Geol. Rev. 34, 503	Mineral. Petrol. 60, 185	Pd <sub>8</sub> Sb <sub>3</sub> ; same as UM1975-//Sb:Pd	c
<b>UM1992-//Sb:Pd[3]</b>	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Pd,Cu) <sub>3</sub> Sb; probably the same as UM1986-53-Sb:AsPdSn	c
<b>UM1992-//Sb:PdPt</b>	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Pd,Pt) <sub>4</sub> Sb <sub>3</sub> ; same as ungvaitite described later: Can. Mineral. 43 (2005), 1735	a
<b>UM1992-//Se:BiCu</b>	Mineral. Polonica 23 (2), 35	Am. Mineral. 80, 186	(Bi,Cu) <sub>4</sub> Se <sub>3</sub> ; apparently a Cu-bearing and S-free laitakarite	c

UM1992-//SiO:BaFHMnNa	*Soviet Phys. Cryst. 37, 174	Am. Mineral. 78, 675	NaBa <sub>3</sub> (Mn <sup>2+</sup> , Mn <sup>3+</sup> ) <sub>4</sub> [Si <sub>4</sub> O <sub>10</sub> (OH) <sub>2</sub> ][Si <sub>2</sub> O <sub>7</sub> ]O <sub>2</sub> F•H <sub>2</sub> O; later described under the name strakhovite: Zap. Vser. Mineral. Ob. 123 (1994) (4), 94	a
UM1992-//SiO:HKNa	*Soviet Phys. Cryst. 37, 167	Am. Mineral. 78, 676	Na <sub>8</sub> K[Si <sub>9</sub> O <sub>18</sub> (OH) <sub>9</sub> ]•19H <sub>2</sub> O; later described under the name megacyclite: Zap. Vser. Mineral. Ob. 122 (1993) (1), 125	a
UM1992-//SiO:HKNaNbREETIYZr	*Soviet Phys. Cryst. 37, 845	Am. Mineral. 79, 189	(Na,K) <sub>5</sub> (Y,REE)(Zr,Ti,Nb) <sub>6</sub> Si <sub>6</sub> O <sub>18</sub> •6H <sub>2</sub> O; later described under the name sazykinaite-(Y): Zap. Vser. Mineral Ob. 122 (1993) (5), 76	a
UM1992-//SiO:HmNsR	Eur. J. Mineral. 4, 17	Am. Mineral. 77, 1307	Later described under the name hennomartinite: Schweiz. Mineral. Petrog. Mitt. 73 (1993), 349	a
UM1992-//SiO:KTI	Can. Mineral. 30, 1153	Am. Mineral. 78, 1112	K <sub>2</sub> TiSi <sub>3</sub> O <sub>9</sub> ; same as UM1989-35-SiO:KTI; probably the Ti-analogue of wadeite. Formerly coded as UM1992-37-SiO:KTI	c
UM1992-//Sn:PdSb	Internat. Geol. Rev. 34, 503	Mineral. Petrol. 60, 185	Pd <sub>2</sub> (Sn,Sb); same as UM1976-27-Sn:PdSb	c
UM1992-//Te:AgBiPd	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	(Pd,Ag) <sub>8</sub> (Te,Bi) <sub>3</sub> ; possibly a Bi-bearing variant of UM1981-31-Te:Pd	c
UM1992-//Te:AgPd	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	Pd <sub>6</sub> AgTe <sub>4</sub> ; same as UM1991-25-Te:AgPd	c
UM1992-//Te:AsPdPt	Austral. J. Earth Sci. 39, 389		(Pt,Pd) <sub>3</sub> (Te,As); inadequate data	b
UM1992-//Te:AsPdPtS	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pd,Pt) <sub>3</sub> (Te,As,S); perhaps keithconnite or UM1974-24-Te:Pd	c
UM1992-//Te:CuFePdPtSnS	Internat. Geol. Rev. 34, 503	Mineral. Petrol. 60, 185	(Pd,Pt,Cu,Fe) <sub>9</sub> Sn(Te,S) <sub>4</sub> ; apparently oulankaite	c
UM1992-//Te:Pd	Internat. Geol. Rev. 34, 503	Mineral. Petrol. 60, 185	Pd <sub>8</sub> Te <sub>3</sub> ; same as UM1981-31-Te:Pd	c
UM1993-//AsO:AlCuFe	Mineral. Record 24, 203		No formula or other data	b
UM1993-//AsO:BiCu	Mineral. Record 24, 11		No formula or other data	b
UM1993-//AsO:CaClCuNaP	Mineral. Record 24, 203		No formula or other data	b
UM1993-//AsO:CuH	Mineral. Record 24, 203		No formula or other data; reported as arsenate-analogue of pseudomalachite; probably cornwallite	b,c
UM1993-//AsO:FeHSTI	Mineral. Record 24, 437		Fe <sub>2</sub> Tl(As,S) <sub>3</sub> O <sub>12</sub> •4H <sub>2</sub> O; inadequate data; same as UM1994-01-AsO:FeHSTI	b,c
UM1993-//BO:CaHNa	Kristallografiya 38, 71	Am. Mineral. 79, 1213	NaCa <sub>2</sub> B <sub>9</sub> O <sub>14</sub> (OH) <sub>4</sub> •2H <sub>2</sub> O; later described under the name studentisite: Zap. Vser. Mineral. Ob. 124 (1998) (3), 37	a
UM1993-//Bi:PdPtSnTe	Can. Mineral. 31, 31		(Pt,Pd)(Bi,Te,Sn); apparently a mixture	d
UM1993-//Bi:PdTe	Explor. Mining Geol. 2, 105		Pd(Bi,Te); inadequate data; not distinguishable from Te-bearing sobolevskite	c
UM1993-//Cl:CaFeO	ICDD 45-1437		CaFeO <sub>3</sub> Cl; product of a burning coal dump and hence not a mineral	f
UM1993-//ClS:AgHg	Mineral. Record 24, 203		No formula or other data	b
UM1993-//E:AgAuBiTe	Can. Mineral. 31, 613		Inadequate data	b
UM1993-//E:AsPdTe	Can. Mineral. 31, 613		Inadequate data	b
UM1993-//E:BiPdTe	Can. Mineral. 31, 613		Inadequate data	b
UM1993-//E:HgPd	Explor. Mining Geol. 2, 105		A Pd-Hg alloy with no data	b
UM1993-//E:IrOsReRu	Explor. Mining Geol. 2, 105		Re>Ir>Os>Ru; no data; perhaps impure rhenium	b,c
UM1993-//OH:BaAlS	Mineral. Petrol. 47, 255	Am. Mineral. 78, 1317	Ba <sub>2</sub> Al <sub>2</sub> S <sub>3</sub> (OH) <sub>8</sub> •8H <sub>2</sub> O; has formed on a slag and hence is not a mineral.	f
UM1993-//S:AsPtRh	Can. Mineral. 31, 613		Mineral "UK1"; probably platarsite	c
UM1993-//S:AsSbTI	*Ann. Geol. Penins. Balk. 57, 301	Am. Mineral. 81, 1286	Tl <sub>5</sub> Sb <sub>10</sub> As <sub>3</sub> S <sub>22</sub> ; later described under the name jankovcicite: Mineral. Petrol. 53 (1995), 125	a
UM1993-//S:AsTI	Mineral. Record 24, 203		Tl <sub>3</sub> AsS <sub>4</sub> ; same as UM1988-//S:AsTI; later described under the name fangite: Am. Mineral. 78 (1993), 1096	a
UM1993-//S:BaCuFe	Explor. Mining Geol. 2, 105		Probably a barium sulphide but no data	b
UM1993-//S:BiCuFePdTe	Can. Mineral. 31, 613		Mineral "UK2"; inadequate data—probable contamination	d,b
UM1993-//S:BiPbSe[1]	*Zap. Vser. Mineral. Ob. 122 (3), 1	Am. Mineral. 80, 632.	Pb <sub>2</sub> Bi <sub>2</sub> (S,Se) <sub>3</sub> ; later described under the name babkinite: Dokl. Akad. Nauk 346 (1996), 656	a
UM1993-//S:BiPbSe[2]	*Zap. Vser. Mineral. Ob. 122 (3), 1	Am. Mineral. 80, 632.	(Bi,Pb) <sub>3</sub> (S,Se) <sub>4</sub> ; not compositionally distinct from wittite	c
UM1993-//S:BiTe	Can. Mineral. 31, 471		~Bi <sub>4</sub> Te <sub>2</sub> S; not compositionally distinct from joséite-B	c
UM1993-//S:CuFeMoRe	Eur. J. Mineral. 5, 1227	Am. Mineral. 79, 390	(Cu,Fe)(Re,Mo) <sub>4</sub> S <sub>8</sub> ; same as UM1982-//S:CuMoRe	c
UM1993-//S:IrOsRu	Mineral. Petrol. 47, 263	Am. Mineral. 79, 390	(Ru,Os,Ir) <sub>4</sub> S <sub>5</sub> ; inadequate data	b
UM1993-//S:Re	Explor. Mining Geol. 2, 105		A rhenium sulphide with no data	b
UM1993-//SO:AlHPb	Mineral. Record 24, 203		No data but X-ray powder diffraction pattern resembles that of alunite	b,c
UM1993-//SO:Ba	Mineral. Petrol. 47, 255	Am. Mineral. 78, 1317	BaSO <sub>3</sub> ; has formed on a slag and hence is not a mineral	f
UM1993-//SO:BaF	Mineral. Petrol. 47, 255	Am. Mineral. 78, 1317	Ba <sub>2</sub> S <sub>2</sub> O <sub>3</sub> F <sub>2</sub> ; has formed on a slag and hence is not a mineral	f
UM1993-//SO:BaH	Mineral. Petrol. 47, 255	Am. Mineral. 78, 1317	BaS <sub>2</sub> O <sub>3</sub> •H <sub>2</sub> O; has formed on a slag and hence is not a mineral	f
UM1993-//Sb:BiNiPdTe	Explor. Mining Geol. 2, 105		Pd <sub>3</sub> Ni(Sb,Te,Bi) <sub>5</sub> ; no data	b
UM1993-//SiO:AlBaH	Can. Mineral. 31, 687		BaAl <sub>2</sub> Si <sub>6</sub> O <sub>16</sub> •5H <sub>2</sub> O; later named brewsterite-Ba: Can. Mineral. 35 (1997), 1571	a
UM1993-//SiO:AlCaCeFeHLa[1]	Can. Mineral. 31, 159	Can. Mineral. 40, 1411	Ca(Ce,La)Fe <sup>2+</sup> Fe <sup>3+</sup> Al(Si <sub>2</sub> O <sub>7</sub> )(SiO <sub>4</sub> )O(OH); equivalent to ferriallanite-(Ce) in the IMA-approved nomenclature for epidote-group	a
UM1993-//SiO:AlCaCeFeHLa[2]	Can. Mineral. 31, 159	Can. Mineral. 40, 1411	Ca(La,Ce)Fe <sup>2+</sup> Fe <sup>3+</sup> Al(Si <sub>2</sub> O <sub>7</sub> )(SiO <sub>4</sub> )O(OH); equivalent to ferriallanite-(La) in the IMA-approved nomenclature for epidote-group	a
UM1993-//Te:Ag	Can. Mineral. 31, 471		Ag <sub>2</sub> Te; not compositionally distinct from hessite	c
UM1993-//Te:AgPd[1]	Dokl. Akad. Nauk 329, 497		Pd <sub>3</sub> AgTe <sub>4</sub> ; not distinct from Ag-bearing kotulskite	c

UM1993--Te:AgPd[2]	Dokl. Akad. Nauk 329, 497		Approximately (Pd,Ag) <sub>5</sub> Te <sub>3</sub> but not compositionally distinct from UM1991-25-Te:AgPd	c
UM1993--Te:BiNiPd	Can. Mineral. 31, 613		Mineral "UK3"; probably Pd-bearing melonite	c
UM1993--Te:NiPdSb[1]	Explor. Mining Geol. 2, 105		(Pd,Ni) <sub>2</sub> (Te,Sb) <sub>3</sub> ; inadequate data; probably the same as UM2004-48-Te:NiPdSb	b,c
UM1993--Te:NiPdSb[2]	Explor. Mining Geol. 2, 105		(Ni,Pd) <sub>3</sub> (Te,Sb) <sub>4</sub> ; inadequate data	b
UM1993--Te:NiPdSb[3]	Explor. Mining Geol. 2, 105		(Ni,Pd) <sub>2</sub> (Te,Sb) <sub>3</sub> ; inadequate data	b
UM1994--AsOCO:CuZn	Lapis 19 (7-8), 41	Lapis 32 (6), 58	"U130"; an arsenate/carbonate; only qualitative data	b
UM1994--BO:CaH	Cryst. Reports 39, 905	Am. Mineral. 80, 1331	CaB <sub>3</sub> O <sub>4</sub> (OH) <sub>3</sub> ; later described under the name jarandolite: New Data on Minerals 39 (2004), 26	a
UM1994--Cl:HKMgNO	Neues Jb. Mineral. Mh. (1994), 97	Am. Mineral. 79, 1213	K <sub>2</sub> (NH <sub>4</sub> )Mg <sub>3</sub> Cl <sub>9</sub> ·18H <sub>2</sub> O; anthropogenic and not definitely distinct from carnallite	f,c
UM1994--F:OREE	C. R. Acad. Sci. Paris, Ser. II, 318, 1333	Am. Mineral. 80, 187	(La,Ce)F <sub>2.72</sub> O <sub>0.13</sub> ; probably fluocerite	c
UM1994--O:FePdPt	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Pt,Fe,Ir)O; not distinguishable from UM1990-27-O:Pt	c
UM1994--S:AgAsSbTe	Econ. Geol. 89, 602	Am. Mineral. 80, 186	Ag <sub>9</sub> (Sb,As)Te <sub>2</sub> S <sub>4</sub> ; probably benleonardite	c
UM1994--S:AgFe	Econ. Geol. 89, 602	Am. Mineral. 80, 186	AgFeS <sub>2</sub> ; indistinguishable from lenaite: Zap. Vser. Mineral. Ob. 124 (1995) (5), 85	c
UM1994--S:AuBi	Bull. Mineral.-petrogr. Odd. NM v Praze 2, 89	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986--S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127.	a
UM1994--S:BiPbPt	Can. Mineral. 32, 703		Not distinct from crerarite	c
UM1994--S:CuFeGeMo	*Geol. Rudn. Mest. 36, 370	Am. Mineral. 80, 632	Cu <sub>20</sub> (Fe,Cu,Zn) <sub>6</sub> Mo <sub>2</sub> Ge <sub>6</sub> S <sub>32</sub> ; later described under the name maikainite: Dokl. Earth Sci. 393A, (2003), 1329	a
UM1994--S:CuFeGeWZn	*Geol. Rudn. Mest. 36, 370	Am. Mineral. 80, 632	Cu <sub>20</sub> (Fe,Cu,Zn) <sub>6</sub> W <sub>2</sub> Ge <sub>6</sub> S <sub>32</sub> ; later described under the name ovamboite: Dokl. Earth Sci. 393A, (2003), 1329	a
UM1994--S:CuFeInZn	*Geol. Rudn. Mest. 36 (3), 230	Am. Mineral. 80, 407	Same as UM1980--S:CuFeInZn (=sakuraiite)	c
UM1994--S:CuFeIrNiRh	*Zap. Vser. Mineral. Ob. 123 (2), 41	Am. Mineral. 80, 1330	(Rh,Ir,Fe,Ni,Cu) <sub>1-x</sub> S; indistinguishable from UM1981-15-S:CuFeIrNiRh	c
UM1994--S:Re	Nature 369, 51	Am. Mineral. 80, 406	ReS <sub>2</sub> ; later described under the name rheniite: Zap. Ross. Mineral. Ob. 134 (5), (2005), 32; transferred from Valid list	a
UM1994--S:Sb:CuNi	*Dokl. Akad. Nauk 335, 709	Am. Mineral. 80, 1076	CuNiSb <sub>2</sub> ; later described under the name zlatogorite: Vest. Moscow Univ. Geol. Ser. 4 (1995) (5), 57	a
UM1994--SiO:AlBaCaFFeHKMgNaTi	Mineral. Zhurn. 16 (2), 67	Am. Mineral. 81, 1516	(Ba,K,Na,Ca) <sub>2</sub> (Mg,Fe,Ti) <sub>6</sub> Si <sub>4</sub> Al <sub>4</sub> O <sub>20</sub> (OH,F) <sub>4</sub> ; not distinct from K-bearing kinoshitalite	c
UM1994--SiO:HKNaNbTi	Eur. J. Mineral. 6, 503	Am. Mineral. 80, 633	(K,Na) <sub>2</sub> (Nb,Ti) <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (O,OH) <sub>2</sub> ·1.6H <sub>2</sub> O; later described under the name vuoriyarvite: Dokl. Akad. Nauk 358 (1998), 517	a
UM1994--SiO:MgHPb	Mineral Wealth 91, 33	Am. Mineral. 81, 520	Pb <sub>3</sub> Mg <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> (OH) <sub>2</sub> ·3.5H <sub>2</sub> O; same as UM1988--SiO:MgHPb	c
UM1994--Te:Bi	*Geol. Surv. Finland Bull. 377, 1	Can. Min. 45, 665	Bi <sub>2</sub> Te; presumably the same as UM1980-16-Te:Bi	c
UM1995--Cl:HKMgNO	Neues Jb. Mineral. Mh. (1995), 351	Am. Mineral. 81, 770	(K,NH <sub>4</sub> )MgCl <sub>3</sub> ·6H <sub>2</sub> O; anthropogenic and therefore not a mineral; see also UM1994--Cl:HKMgNO	f
UM1995--CO:CaHREEU	J. Russell Soc. 6 (1), 17		Ca-REE-UO <sub>2</sub> carbonate hydrate; inadequate data	b
UM1995--CO:PbU	J. Russell Soc. 6 (1), 17		Basic Pb-UO <sub>2</sub> carbonate; inadequate data	b
UM1995--E:AuPdPt	S. Afr. J. Geol. 98 (2), 168	Am. Mineral. 81, 1016	(Pt,Au) <sub>0.66</sub> Pd <sub>0.34</sub> ; transferred to Valid list	c
UM1995--E:CuSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	Cu <sub>6</sub> Sn <sub>5</sub> ; apparently the same as UM1965-06-E:CuSn. Formerly coded as UM1995-04-E:CuSn	c
UM1995--E:PtPdPt	S. Afr. J. Geol. 98 (2), 168	Am. Mineral. 81, 1016	Pt <sub>0.84</sub> Pd <sub>0.16</sub> ; may be simply a substituted platinum	c
UM1995--E:PtRhRu	Chronique de la recherche Minière No. 520, 3	Mineral. Mag. 68, 389	PtRuRh alloy; no data	b
UM1995--O:AuH	*Dokl. Akad. Nauk 344, 525	Am. Mineral. 81, 1286	AuO(OH); probably the same as UM1995-15-O:AuClH	c
UM1995--O:CrMgV	Zap. Vser. Mineral. Ob. 124 (4), 91	Am. Mineral. 81, 1283	Mg(Cr,V) <sub>4</sub> O <sub>9</sub> ; inadequate data	b
UM1995--O:FeIrPtRh	Chronique de la recherche Minière No. 520, 3	Mineral. Mag. 68, 389	Pt-Ir-Fe-Rh oxide; no data	b
UM1995--O:FeMnNbTaW	Kristallografiya 40, 469	Zap. Vser. Mineral. Ob. 125 (6), 88	(Mn,Fe) <sub>3</sub> (Nb,Ta,Mn) <sub>5</sub> (W,Ta) <sub>2</sub> O <sub>20</sub> ; later described under the name koragoite: Dokl. Akad. Nauk 353 (1997), 516	a
UM1995--O:FeMnRu	Chronique de la recherche Minière No. 520, 3	Mineral. Mag. 68, 389	Ru-Mn-Fe oxide; no data; probably same as UM1994-13-O:FeMnRu	b,c
UM1995--O:FePt	Chronique de la recherche Minière No. 520, 3	Mineral. Mag. 68, 389	Pt-Fe oxide; no data	b
UM1995--PO:AlCdFH	Mineral. Record 26, 449	Am. Mineral. 81, 519	(Cd,Cu)AlPO <sub>4</sub> (F,OH); "unknown #2"; later described under the name goldquarryite: Mineral. Record 34 (2003), 237	a
UM1995--PO:AlCuFeFHV	Mineral. Record 26, 449	Am. Mineral. 81, 519	Cu(Al,V,Fe) <sub>5</sub> (PO <sub>4</sub> ) <sub>4</sub> (F,OH) <sub>5</sub> ·7H <sub>2</sub> O; designated "unknown #1"; later described under the name nevadaite: Can. Mineral. 42 (2004), 741	a
UM1995--S:AgCuFePbSb	*Resource Geol. 45, 323	Am. Mineral. 81, 1515	Pb <sub>2.12</sub> (Sb,Bi) <sub>1.69</sub> (Cu,Ag) <sub>0.33</sub> Fe <sub>2.5</sub> S <sub>5</sub> ; composition close to lillianite	c
UM1995--S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	Pb <sub>2</sub> Bi <sub>2</sub> Te <sub>2</sub> S <sub>3</sub> ; later named saddlebackite: Austral. J. Mineral. 3 (1997), 119	a
UM1995--S:CIPbSb	Eur. J. Mineral. 7, 1007	Zap. Vser. Mineral. Ob. 125 (6), 88	Pb <sub>12.65</sub> Sb <sub>11.35</sub> S <sub>28.35</sub> Cl <sub>2.65</sub> ; data are from synthetic material; probably the same compound as UM1980-18-S:CIPbSb	c

<b>UM1995-//S:CuFeIrNiRh</b>	Can. Mineral. 33, 509	Am. Mineral. 81, 518	(Ni,Fe,Cu) <sub>2</sub> (Ir,Rh)S <sub>3</sub> ; not distinct from UM1990-38-S:CuFeIrNiPtRh	c
<b>UM1995-//S:CuIrPtRh</b>	Can. Mineral. 33, 509	Am. Mineral. 81, 518	(Pt <sub>0.72</sub> Rh <sub>0.43</sub> Ir <sub>0.12</sub> Pd <sub>0.01</sub> )Cu <sub>0.64</sub> S <sub>3.06</sub> ; very low analytical total; probably not distinct from UM1981-17-S:CuIrPtRh	b,c
<b>UM1995-//S:CuMoRe</b>	Mineral. Petrol. 52, 257	Am. Mineral. 80, 1076	Cu(Re,Mo,Os) <sub>5</sub> S <sub>9</sub> ; not distinguishable from UM1982-//S:CuMoRe	c
<b>UM1995-//S:Rh</b>	Chronique de la recherche Minière No. 520, 3	Mineral. Mag. 68, 389	RhS; no data	b
<b>UM1995-//SiO:AlBaFeHKMgMn</b>	Am. Mineral. 80, 833		(Ba,K) <sub>1-x</sub> (Fe,Mg,Mn,Al) <sub>3</sub> (Si,Al) <sub>4</sub> O <sub>10</sub> (F,OH) <sub>2</sub> ; later described under the name ferrokioshitalite: Can. Mineral. 37 (1999), 1445	a
<b>UM1995-//SiO:AlCrHK</b>	*C. R. Acad. Sci. Paris, ser. Ila, 321, 1127	Am. Mineral. 81, 1016	K <sub>2</sub> Cr <sub>4</sub> Al <sub>2</sub> Si <sub>6</sub> O <sub>20</sub> (OH) <sub>4</sub> ; later described under the name chromphyllite: Zap. Vser. Mineral. Ob. 126 (1997) (2), 110	a
<b>UM1995-//SiO:BeCaKLiNaTi</b>	*Cryst. Reports 40, 228	Am. Mineral. 80, 1332	K <sub>2</sub> (Na,Li) <sub>4</sub> Ca <sub>3</sub> Ti <sub>2</sub> Be <sub>4</sub> Si <sub>12</sub> O <sub>38</sub> ; later described under the name odintsovite: Zap. Vser. Mineral. Ob. 124 (1995) (5), 92	a
<b>UM1995-//Te:AgPbPdSbSn</b>	Zap. Vser. Mineral. Ob. 124 (5), 1	Am. Mineral. 81, 1016	(Pd,Ag) <sub>2</sub> (Te,Pb,Sb,Sn); probably the same as UM1993-28-Te:AgPdSn	c
<b>UM1996-//As:NiPd</b>	Mineral. Mag. 60, 973		Pd <sub>3</sub> Ni <sub>2</sub> As <sub>3</sub> ; later described under the name menshikovite: Mineral. Mag. 64 (2000), 847	a
<b>UM1996-//As:Pd</b>	Geol. Surv. Finland Sp. Paper 26, 63		Pd <sub>5</sub> As <sub>2</sub> ; same as UM1975-05-As:Pd and similar to stillwaterite	c
<b>UM1996-//As:PdRh</b>	Explor. Mining Geol. 5, 73		(Rh,Pd,Pt) <sub>2</sub> As (Table B.31); probably Pt,Pd-bearing rhodarsenide	c
<b>UM1996-//As:PdSbTe</b>	Mineral. Mag. 60, 672		Pd <sub>8</sub> (As,Sb,Te) <sub>3</sub> ; probably arsenopalladinite	c
<b>UM1996-//E:CuPd</b>	Geol. Surv. Finland Sp. Paper 26, 63		Pd <sub>3</sub> Cu; same as UM1992-09-E:CuFePt	c
<b>UM1996-//E:FeNiPt</b>	Neues Jb. Mineral. Mh. (1996), 145	Am. Mineral. 82, 209	Pt(Ni,Fe) <sub>3</sub> ; not distinct from UM1986-12-E:CuFeNiPt	c
<b>UM1996-//O:FePt</b>	Explor. Mining Geol. 5, 73		~(Pt,Fe) <sub>3</sub> O <sub>2</sub> ; apparently the same as UM1994-16-O:FePt	c
<b>UM1996-//O:IrRh</b>	Explor. Mining Geol. 5, 73		(Rh,Ir)-oxide; inadequate data	b
<b>UM1996-//OH:AlCl[1]</b>	Aufschluss 47, 41	Am. Mineral. 82, 623	Al <sub>2</sub> Cl(OH) <sub>5</sub> ·2H <sub>2</sub> O; from a burning coal dump; not a mineral; same as lesukite	f
<b>UM1996-//OH:AlCl[2]</b>	Aufschluss 47, 41	Am. Mineral. 82, 623	Al <sub>5</sub> Cl <sub>3</sub> (OH) <sub>12</sub> ·7.5H <sub>2</sub> O; from a burning coal dump—hence not a mineral	f
<b>UM1996-//PO:BiCaCu</b>	Austral. J. Mineral. 2, 47		Cu-Bi-Ca phosphate; later named bleasdaleite: Austral. J. Mineral. 5 (1999), 69	a
<b>UM1996-//PO:CaCeFHNsSr</b>	*Kristallografiya 41, 831	Am. Mineral. 82, 821	Ca <sub>3.2</sub> (Sr,Na,Ce) <sub>1.8</sub> (PO <sub>4</sub> ) <sub>3</sub> F; later described under the name fluorcaphite: Zap. Vser. Mineral. Ob. 126 (1997) (3), 87	a
<b>UM1996-//PO:HU</b>	*Dokl. Akad. Nauk 349, 361	Am. Mineral. 82, 821	U <sub>6</sub> (PO <sub>4</sub> ) <sub>7</sub> (OH) <sub>3</sub> ·4H <sub>2</sub> O; subsequently given the unapproved name urphoite: Dokl. Earth Sci. 358 (1998), 23	a
<b>UM1996-//S:AgBiPb</b>	Can. Mineral. 34, 1323		Ag <sub>6.5</sub> Pb <sub>7</sub> Bi <sub>14.5</sub> S <sub>32</sub> ; probably treasureite with Pb<-->(Ag <sub>0.5</sub> Bi <sub>0.5</sub> ) substitution	c
<b>UM1996-//S:AsPb</b>	Mineral. Record 27, 47		Inadequate data; might be the As-analogue of robinsonite	b,c
<b>UM1996-//S:CuFeGe</b>	Can. Mineral. 34, 1305		Cu <sub>7</sub> (Ge,Fe,As) <sub>12</sub> ; later described under the name calvertite: Can. Mineral. 45 (2007), 1519. Formerly coded as UM1996-31-S:CuFeGe	a
<b>UM1996-//S:CuFeIrNiRh[1]</b>	Mineral. Petrol. 56, 25	Am. Mineral. 81, 1515	(Ir,Rh)(Ni,Fe,Cu) <sub>2</sub> S <sub>3</sub> ; not distinguishable from UM1974-11-S:CuFeIrNi	c
<b>UM1996-//S:CuFeIrNiRh[2]</b>	Mineral. Petrol. 56, 25	Am. Mineral. 81, 1515	(Ir,Rh)(Fe,Ni,Cu) <sub>2</sub> S <sub>3</sub> ; not distinguishable from UM1995-29-S:CuFeIrNiRh	c
<b>UM1996-//S:CuFeMoRe</b>	Mineral. Mag. 60, 973		(Cu,Fe)(Re,Mo) <sub>4</sub> S <sub>8</sub> ; same as UM1982-//S:CuMoRe	c
<b>UM1996-//S:CuPd</b>	Explor. Mining Geol. 5, 73		Pd <sub>7</sub> Cu <sub>3</sub> S <sub>4</sub> ; same mineral as UM1990-41-S:CuPd	c
<b>UM1996-//S:FeZn</b>	Meteoritics Planet. Sci. 31, 647		(Fe,Zn)S; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
<b>UM1996-//S:PdRh</b>	Explor. Mining Geol. 5, 73		(Rh,Pd) <sub>18</sub> S <sub>15</sub> ; probably Pd-bearing miassite	c
<b>UM1996-//SO:CCaGeH</b>	Acta Mineral.-Petrogr., Szeged 37, Suppl. (1996), 76		Ca <sub>2</sub> Ge(OH) <sub>6</sub> (SO <sub>4</sub> .CO <sub>3</sub> ) <sub>2</sub> ·12H <sub>2</sub> O; later described under the name carraraite: Am. Mineral. 86 (2000), 1293	a
<b>UM1996-//Sb:AsPd</b>	Geol. Surv. Finland Sp. Paper 26, 63		Pd <sub>11</sub> Sb <sub>3</sub> As; not distinguishable from mertieite-1	c
<b>UM1996-//SiO:AlCaHNa</b>	Austral. J. Mineral. 2, 11		Qualitative composition; later identified as mesolite	c
<b>UM1996-//SiO:AlFeK</b>	Am. Mineral. 81, 229		Identical to UM1993-25-SiO:AlFeK	c
<b>UM1996-//SiO:CaNaTiZr</b>	Can. Mineral. 34, 779	Am. Mineral. 82, 433	Incomplete data for inhomogeneous inclusions; perhaps multiple phases	b,d
<b>UM1996-//SiO:HKNaNbTi</b>	*Dokl. Akad. Nauk 351, 207	Am. Mineral. 83, 188	KNaK(Ti,Nb) <sub>2</sub> (Si <sub>4</sub> O <sub>12</sub> )(O,OH) <sub>2</sub> ·2H <sub>2</sub> O; later described under the name lemmleinite-K: Zap. Vser. Mineral. Ob. 128 (1999) (5), 54	a
<b>UM1996-//SiO:HMnNaTi</b>	Kristallografiya 41, 257	Am. Mineral. 81, 1516	Na <sub>6</sub> MnTiSi <sub>10</sub> (O,OH) <sub>28</sub> ·4H <sub>2</sub> O; later described under the name intersilite: Zap. Vser. Mineral. Ob. 125 (1996) (4), 79	a
<b>UM1996-//Sn:PdSb</b>	Mineral. Mag. 60, 973		Pd <sub>2</sub> (Sn <sub>0.5</sub> Sb <sub>0.5</sub> ) <sub>3</sub> ; apparently the same as UM1976-27-Sn:PdSb	c
<b>UM1996-//Te:AgAuS</b>	*Acta Petrol. Mineral. 15, 80	Am. Mineral. 82, 209	(Ag,Au) <sub>2</sub> Te <sub>4</sub> ; mineral designated "M2" appears to be sylvanite and/or krennerite	c
<b>UM1996-//Te:BiPbS</b>	Rept. Res. Inst. Nat. Resources, Akita Univ. No. 61, 1	Am. Mineral. 82, 821	(Bi,Pb) <sub>3</sub> (Te,S) <sub>4</sub> ; not compositionally distinct from UM1976-30-Te:BiPbS	c
<b>UM1996-//TeO:CuFeHMgZn</b>	Can. Mineral. 34, 49		Cu(Mg,Cu,Fe,Zn) <sub>2</sub> TeO <sub>6</sub> ·6H <sub>2</sub> O; designated UKCE-10 and later described under the name leisingite: Mineral. Mag. 60 (1996), 653	a
<b>UM1997-//As:FeIrNiPdPtRh</b>	Can. Mineral. 35, 611	Am. Mineral. 83, 402	(Rh,Ir,Pt,Pd)(Ni,Fe)As; not distinct from UM1983-03-As:NiRh	c
<b>UM1997-//As:FeIrNiS</b>	J. Petrol. 38, 1419		(Fe,Ni,Cu)Ir <sub>1.66</sub> As <sub>0.45</sub> ; inadequate data - very low total	b
<b>UM1997-//As:IrNi</b>	J. Petrol. 38, 1419		(Ni,Ir) <sub>5</sub> As <sub>2</sub> ; similarities to orcelite; generalised and inadequate data	b
<b>UM1997-//As:IrOsTe</b>	Zap. Vser. Mineral. Ob. 126 (6), 23		(Ir,Os)(As,Te); the same minerals as UM1997-03-As:IrOsTe	c
<b>UM1997-//As:NiRh</b>	J. Petrol. 38, 1419		NiRhAs; same as UM1983-03-As:NiRh	c

<b>UM1997-/-As:PdRh[1]</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Pd,Rh) <sub>2</sub> As; later described under the name palladodymite: Zap. Vser. Mineral. Ob. 128 (1999) (2), 39	a
<b>UM1997-/-As:PdRh[2]</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Rh,Pd,Pt) <sub>2</sub> As; Later described under the name rhoarsenide: Zap. Vser. Mineral. Ob. 128 (1999) (2), 60	a
<b>UM1997-/-AsO:CaH</b>	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	Ca(H <sub>2</sub> AsO <sub>4</sub> ) <sub>2</sub> ; later named svenekite: J. Czech Geol. Soc. 48 (1997), 149. Formerly coded as UM1997-07-AsO:CaH	a
<b>UM1997-/-AsO:HMO</b>	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	MoAs <sub>2</sub> O <sub>9</sub> ·3H <sub>2</sub> O; later named vajdakite: Am. Mineral. 87 (2002), 983. Formerly coded as UM1997-17-AsO:HMO	a
<b>UM1997-/-C:W</b>	*Dokl. Akad. Nauk 353, 354	Am. Mineral. 83, 189	WC - tungsten carbide; same as UM1986-08-C:W	c
<b>UM1997-/-CO:NaU</b>	J. Czech Geol. Soc. 42 (4), 77		Na <sub>4</sub> (UO <sub>2</sub> )(CO <sub>3</sub> ) <sub>3</sub> ; later described under the name cejkaite: Am. Mineral. 88 (2003), 686	a
<b>UM1997-/-Cl:FeHOPb</b>	Eur. J. Mineral. 9, 43		Pb <sub>2</sub> Fe <sup>3+</sup> Cl <sub>3</sub> (OH) <sub>4</sub> ·H <sub>2</sub> O; an alteration product of anthropogenic material, hence not a mineral	f
<b>UM1997-/-E:CuFePt</b>	Zap. Vser. Mineral. Ob. 126 (6), 23		The same mineral as UM1986-15-E:CuFePt	c
<b>UM1997-/-E:CuPtSb</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	Pt <sub>3</sub> (Sb,Cu); not distinguishable from UM1992-12-E:IrPtSb	c
<b>UM1997-/-E:FeIrNi</b>	J. Petrol. 38, 1419		Ir(Ni,Fe) <sub>1.5-5</sub> ; wide-ranging data	b
<b>UM1997-/-E:FePt</b>	J. Petrol. 38, 1419		Ir(Pt,Os) <sub>8</sub> Fe; probably a substituted native iridium	c
<b>UM1997-/-E:IrOsPtRhRu[1]</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Ru,Pt,Ir,Rh,Os); indistinguishable from UM1978-05-E:IrOsPtRu	c
<b>UM1997-/-E:IrOsPtRhRu[2]</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Ir,Ru,Os,Rh,Pt); indistinguishable from UM1977-06-E:IrOsPtRu	c
<b>UM1997-/-F:KMgNa</b>	Mineral. Mag. 61, 779	Am. Mineral. 83, 910	A Na-bearing variety of UM1960-02-F:KMg?	b,c
<b>UM1997-/-O:CaNbREETHiU</b>	Am. Mineral. 82, 1241		Inadequate data	b
<b>UM1997-/-O:FeHgRu</b>	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	RuO <sub>2</sub> ; Hg may be an amalgamation contaminant making mineral suspect	f
<b>UM1997-/-O:FeIrOsRu</b>	Can. Mineral. 35, 1431	Am. Mineral. 84, 197	(Ru,Os,Ir,Fe) <sub>2</sub> O <sub>2-3</sub> ; very similar to UM1997-34-O:FeIrOsRu	c
<b>UM1997-/-O:FeREESiTiZr</b>	*Acta Mineral. Sinica 17 (3), 270	Am. Mineral. 83, 910	(Ti <sub>0.86</sub> Zr <sub>0.73</sub> Si <sub>0.19</sub> Fe <sub>0.11</sub> .....)O <sub>4</sub> ; zirconolite/mathiasite mixture?	d,b
<b>UM1997-/-O:HU</b>	J. Czech Geol. Soc. 42 (4), 77		Probably a hydrated oxide; X-ray powder diffraction pattern same as UM1960-04-O:HU	c
<b>UM1997-/-OH:AlCuF</b>	*Dokl. Akad. Nauk 353, 354	Am. Mineral. 83, 188	Cu <sub>4</sub> Al <sub>3</sub> (OH) <sub>14</sub> F <sub>3</sub> ·2H <sub>2</sub> O; later described under the name khaidarkanite: Zap. Vser. Mineral. Ob. 128 (1999) (3), 58	a
<b>UM1997-/-PO:AsBiHU</b>	*J. Czech Geol. Soc. 42 (4), 77	Can. Mineral. 42, 963	A P-dominant analogue of walpurgite; later described under the name phosphowalpurkite: Can. Mineral. 42 (2004), 963	a
<b>UM1997-/-PO:BiHU</b>	J. Czech Geol. Soc. 42 (4), 77		Bi <sub>4</sub> (UO <sub>2</sub> )(PO <sub>4</sub> ) <sub>2</sub> O <sub>4</sub> ·2H <sub>2</sub> O; later named phosphowalpurkite: Can. Mineral. 42 (2004), 963; formerly coded as UM1997-37-PO:BiHU	a
<b>UM1997-/-S:AgBiPbSb</b>	Mineral. Mag. 61, 387	Am. Mineral. 83, 188	(Pb <sub>2.94</sub> Ag <sub>0.06</sub> )(Bi <sub>1.43</sub> Sb <sub>0.50</sub> Ag <sub>0.18</sub> )(S <sub>5.98</sub> Se <sub>0.01</sub> Te <sub>0.01</sub> ); very close to lillianite composition	b
<b>UM1997-/-S:AsIrNi</b>	J. Petrol. 38, 1419		(Ir,Ni) <sub>2</sub> AsS <sub>2</sub> ; inadequate data - very low total	c
<b>UM1997-/-S:AsIrOsTe[1]</b>	Eur. J. Mineral. 9, 457	Am. Mineral. 82, 1263	(Ir,Os)(S,As,Te) <sub>2</sub> ; indistinguishable from UM1973-20-S:IrOs	c
<b>UM1997-/-S:AsIrOsTe[2]</b>	Zap. Vser. Mineral. Ob. 126 (6), 23		(Ir,Os)(S,As,Te) <sub>2</sub> ; same mineral as UM1997-/-S:AsIrOsTe[1]	c
<b>UM1997-/-S:AsNiRu</b>	J. Petrol. 38, 1419		(Ni,Ru) <sub>2</sub> AsS; inadequate data - very high total	b
<b>UM1997-/-S:BiPbTe</b>	Austral. J. Mineral. 3, 119	Am. Mineral. 83, 1119	PbBi <sub>4</sub> Te <sub>4</sub> S <sub>3</sub> ; same as UM1976-30-Te:BiPbS; formerly coded as UM1997-39-S:BiPbTe	c
<b>UM1997-/-S:CuFeIrNiOsRhRu</b>	J. Petrol. 38, 1419		Generalised and inadequate data	b
<b>UM1997-/-S:FeNb</b>	Can. Mineral. 35, 875	Am. Mineral. 83, 1119	Later described under the name edgarite: Contr. Mineral. Petrol. 138 (2000), 229	a
<b>UM1997-/-S:IrRh</b>	J. Petrol. 38, 1419		(Ir,Rh)S <sub>2</sub> ; Appears to be the same as UM1974-13-S:IrRh	c
<b>UM1997-/-SO:CuHU</b>	J. Czech Geol. Soc. 42 (4), 77		A uranyl sulphate later equated with pseudojohannite: Am. Mineral. 91 (2006), 929.	a
<b>UM1997-/-Se:BiPt</b>	Dokl. Akad. Nauk 354 (1), 82	Dokl. Earth Sci. 354, 486	PtBiSe; no data	b
<b>UM1997-/-Se:CoCuPtS</b>	Dokl. Akad. Nauk 354 (1), 82	Dokl. Earth Sci. 354, 486	PtCoCu(Se,S); no data	b
<b>UM1997-/-SiO:AlCaH</b>	Am. Mineral. 82, 1241		Ca <sub>0.8</sub> Al <sub>0.2</sub> SiO <sub>n</sub> (OH) <sub>m</sub> (H <sub>2</sub> O) <sub>x</sub> ; no data	b
<b>UM1997-/-SiO:AlCaHNa[1]</b>	Am. Mineral. 82, 1241		Na <sub>2</sub> CaAl <sub>4</sub> Si <sub>4</sub> O <sub>16</sub> ·nH <sub>2</sub> O; no data; perhaps gonnardite	b,c
<b>UM1997-/-SiO:AlCaHNa[2]</b>	Am. Mineral. 82, 1241		Na <sub>2</sub> Ca <sub>4</sub> Si <sub>4</sub> O <sub>15</sub> (OH) <sub>4</sub> ; no data; perhaps pectolite	b,c
<b>UM1977-/-SiO:CaHThU</b>	Am. Mineral. 82, 1241		Ca <sub>3.5</sub> (Th,U) <sub>1.5</sub> (SiO <sub>4</sub> ) <sub>3</sub> (OH); no data; perhaps "calciobrittholite"	b,c
<b>UM1977-/-SiO:CaREE</b>	Am. Mineral. 82, 1241		LREE,Ca-silicate; no data; perhaps stillwellite	b
<b>UM1997-/-SiO:HNbTi</b>	Dokl. Akad. Nauk 357, 364	Am. Mineral. 84, 195	Na(Ti,Nb)Si <sub>2</sub> O <sub>6</sub> (O,OH)·2H <sub>2</sub> O; Ti-analogue of nenadkevichite; later named korobitsynite: Zap. Vser. Mineral. Ob. 128 (1999) (3), 72	a
<b>UM1997-/-Te:AsIrOs[1]</b>	Eur. J. Mineral. 9, 457	Am. Mineral. 82, 1263	(Ir,Os)(Te,As,Se) <sub>2</sub> ; appears to be the same as shuangfengite	c
<b>UM1997-/-Te:AsIrOs[2]</b>	Zap. Vser. Mineral. Ob. 126 (6), 23		(Ir,Os)(Te,As,Se) <sub>2</sub> ; the same mineral as UM1997-/-Te:AsIrOs[1]	c
<b>UM1997-/-Te:AsIrOs[3]</b>	Zap. Vser. Mineral. Ob. 126 (6), 23		(Ir,Os)(Te,As); equivalent to UM1997-54-Te:AsIrOs	c
<b>UM1997-/-VO:FeHMnPb</b>	Can. Mineral. 35, 1027	Am. Mineral. 83, 652	Pb <sub>2</sub> (Fe <sup>3+</sup> ,Mn <sup>3+</sup> )(VO <sub>4</sub> ) <sub>2</sub> (OH); the Fe <sup>3+</sup> -analogue of brackebuschite; later described under the name calderonite: Am. Mineral. 88 (2003), 1703	a
<b>UM1998-/-AsOSO:CuH</b>	*Mitt. Öster. Mineral. Ges. 143, 325	Mineral. Abst. 50, 99M/2022	Cu <sub>10</sub> (AsO <sub>4</sub> ) <sub>4</sub> (SO <sub>4</sub> )(OH) <sub>6</sub> ·8H <sub>2</sub> O; subsequently described under the name leogangite: Mineral. Petrol. 81 (2004), 187	a
<b>UM1998-/-BOSiO:AlFeMg</b>	Can. Mineral. 36, 399		(Fe,Mg)Al <sub>3</sub> [BO <sub>4</sub> ][SiO <sub>4</sub> ]O; the Fe-dominant analogue of grandierite; later described under the name ominelite: Am. Mineral. 87 (2002), 160	a

<b>UM1998--CO:CaHREE</b>	*Mem. Nat. Sci. Museum Tokyo 31, 49	Am. Mineral. 84, 1466	(Nd,La,Pr,Sm,Ca)CO <sub>3</sub> (OH,H <sub>2</sub> O); later described under the name kozoite-(Nd): Am. Mineral. 85 (2000), 1076	a
<b>UM1998--O:CuPd</b>	Austral. J. Mineral. 4, 33		(Cu,Pd)O; Inadequate data; possibly Pd-bearing tenorite	b,c
<b>UM1998--S:AgBiPb</b>	*Dizhi Zhaokuang Luncong 13, 1	Am. Mineral. 85, 628	Pb <sub>3</sub> Ag <sub>2</sub> Bi <sub>2</sub> S <sub>7</sub> ; same mineral as UM1987-07-S:AgBiPb	c
<b>UM1998--S:AgCuFe</b>	Mineralium Deposita 34, 35	Am. Mineral. 84, 1687	(Cu,Ag,Fe) <sub>6</sub> S <sub>4</sub> ; same mineral as UM1990-31-S:AgCuFe	c
<b>UM1998--S:FeMgMnZn</b>	Meteoritics Planet. Sci. 33, 501		(Fe,Zn,Mg,Mn) <sub>3</sub> S; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
<b>UM1998--S:FeZn</b>	Lunar Planet. Sci. 29, 1381		(Fe,Zn) <sub>3</sub> S; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
<b>UM1998--SiO:BaFHNaTi</b>	*Dokl. Akad. Nauk 361, 799	Am. Mineral. 84, 1198	Na <sub>2</sub> (Ba,K,Ca,Sr) <sub>2</sub> Ti <sub>3</sub> Si <sub>4</sub> O <sub>14</sub> (OH,O,F) <sub>2</sub> ; later described under the name nabalamprophyllite: Zap. Vser. Mineral. Ob. 133 (2001) (1), 59	a
<b>UM1998--SiO:FeHKMgMnNaTi</b>	Acta Cryst. B54, 109	Am. Mineral. 83, 1350	K <sub>2</sub> Na <sub>2</sub> (Fe,Mn) <sub>4</sub> Mg <sub>2</sub> Ti <sub>2</sub> Si <sub>8</sub> O <sub>24</sub> (OH) <sub>4</sub> (OH,F) <sub>2</sub> ; reported as a monoclinic dimorph of astrophyllite, but is just magnesium-astrophyllite	c
<b>UM1998--Se:HgPd</b>	Mineral. Mag. 62, 257		Pd <sub>2</sub> HgSe <sub>3</sub> ; "uk1"; no analytical data	b
<b>UM1998--Se:Pd</b>	Mineral. Mag. 62, 257		PdSe <sub>2</sub> ; "uk2"; no analytical data; later described under the name verbeekite: Mineral. Mag. 66 (2002), 173	a
<b>UM1998--Te:BiPd</b>	Austral. J. Mineral. 4, 33		Pd <sub>2</sub> (Te,Bi) <sub>7</sub> ; inadequate data; perhaps the same as UM1974-27-Te:BiPd	b,c
<b>UM1998--Te:HgPd</b>	Austral. J. Mineral. 4, 33		Pd <sub>8</sub> (Te,Hg) <sub>3</sub> ; inadequate data but possibly a Hg-bearing variety of UM1981-31-Te:BiPd	b,c
<b>UM1999--As:CuPd</b>	Mineral. Mag. 63, 345	Am. Mineral. 85, 265	(Pd,Cu) <sub>13</sub> As <sub>2</sub> ; no data other than formula	b
<b>UM1999--As:NiPd</b>	Mineral. Mag. 63, 345	Am. Mineral. 85, 265	Pd <sub>11</sub> Ni <sub>12</sub> As <sub>11</sub> ; no data other than formula	b
<b>UM1999--As:NiRh[1]</b>	Can. Mineral. 37, 1099		RhNiAs; same as UM1983-03-As:NiRh	c
<b>UM1999--As:NiRh[2]</b>	Can. Mineral. 37, 1131	Am. Mineral. 85, 1325	(Rh,Ni) <sub>7</sub> As <sub>4</sub> ; data do not allow distinction from Ni,Pt-bearing polkanovite	c
<b>UM1999--As:NiRh[3]</b>	Can. Mineral. 37, 1131		(Rh,Ni) <sub>2</sub> As; data do not allow distinction from Ni,Pt-bearing polkanovite	c
<b>UM1999--AsO:REE</b>	Can. Mineral. 37, 961		(Y,Ce,Nd,Th,Ca)(As,P)O <sub>4</sub> ; appears to be chernovite-(Y); formerly coded as UM1999-06-AsO:REE	c
<b>UM1999--AsS:CuPd</b>	Mineral. Mag. 63, 345	Am. Mineral. 85, 265	(Pd,Cu) <sub>9</sub> (AsS) <sub>2</sub> ; no data other than formula	b
<b>UM1999--E:CrFe</b>	Dokl. Earth Sci. 369, 1161		Fe <sub>7</sub> Cr; appears not to be distinct from chromferide (Fe <sub>15</sub> Cr <sub>2</sub> )	c
<b>UM1999--E:CrFeNi</b>	Dokl. Earth Sci. 369, 1161		Fe <sub>7</sub> Cr <sub>2</sub> Ni; appears not to be distinct from UM1984-16-E:CrFeMnNi	c
<b>UM1999--E:CuFePt</b>	Can. Mineral. 37, 1117		Identical to UM1992-09-E:CuFePt	c
<b>UM1999--E:CuPbPd</b>	S. Afr. J. Geol. 102, 251		(Pd,Pb,Cu); variable data; possibly substituted native palladium	b,c
<b>UM1999--E:CuPdPt</b>	Can. Mineral. 37, 1507		(Pd,Pt)Cu; formula only - not data	b
<b>UM1999--E:CuSn</b>	Dokl. Earth Sci. 369, 1161		Cu <sub>3</sub> Sn; appears to be the same as UM1965-07-E:CuSn	c
<b>UM1999--E:CuZn</b>	Dokl. Earth Sci. 369, 1161		Cu <sub>3</sub> Zn <sub>2</sub> ; thin-film analysis; appears not to be distinct from unapproved mineral zincopperite (Cu <sub>7</sub> Zn <sub>4</sub> )	b,c
<b>UM1999--O:CuFeMgNiPdPtSSi</b>	Eur. J. Mineral. 11, 363		Pt-Pt-Fe-Mg-Ni-Cu-S-Si-oxides; demonstrably inhomogeneous and probably mixtures	d
<b>UM1999--O:CuFeMnPdPtRu</b>	S. Afr. J. Geol. 102, 251	Mineral. Mag. 68, 369	(Pt,Pd,Cu,Fe,Mn,Ru)O; not demonstrably homogeneous	d
<b>UM1999--O:FeIrOsPtRu</b>	Can. Mineral. 37, 1131		(Ru,Ir,Os,Pt,Fe)O <sub>2</sub> ; not distinct from UM1997--O:FeIrOsRu	c
<b>UM1999--O:MnRhRu</b>	S. Afr. J. Geol. 102, 251	Mineral. Mag. 68, 369	Likely a mixture of PGE metals and other oxides	d
<b>UM1999--O:Pt[1]</b>	S. Afr. J. Geol. 102, 184		PtO; not distinct from UM1990-27-0:Pt	c
<b>UM1999--O:Pt[2]</b>	S. Afr. J. Geol. 102, 184		PtO <sub>2</sub> ; not distinct from UM1996-23-O:FePt	c
<b>UM1999--PO:FeHPb</b>	Can. Mineral. 37, 1323		Inadequate data; compositionally the same as kintoreite but with doubled c dimension	b,c
<b>UM1999--S:AsCuFePd</b>	Mineral. Mag. 63, 345		(Pd,Fe,Cu) <sub>21</sub> (AsSb) <sub>5</sub> ; formula only - no data	b
<b>UM1999--S:AuBi</b>	Chron. Rech. Minéral. 536-537, 79	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986--S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
<b>UM1999--S:CuFeIrNi</b>	Can. Mineral. 37, 1131		Ir(Ni,Fe,Cu) <sub>2</sub> S <sub>3</sub> ; not compositionally distinct from UM1974-11-S:CuFeIrNi	c
<b>UM1999--S:CuFeNiRh</b>	Can. Mineral. 37, 1507		Rh(Ni,Fe,Cu) <sub>2</sub> S <sub>3</sub> ; formula only - no data	b
<b>UM1999--S:CuPtRh</b>	S. Afr. J. Geol. 102, 251	Mineral. Mag. 68, 369	Close to Cu(Pt,Rh) <sub>2</sub> S <sub>4</sub> ; perhaps a Rh-bearing malanite	c
<b>UM1999--S:PbPd</b>	Can. Mineral. 37, 1507		Inadequate data; later described under the name laflammeite: Can. Mineral. 40 (2002), 671	a,b
<b>UM1999--Sb:AsPd</b>	Mineral. Mag. 63, 345	Am. Mineral. 85, 265.	Pd <sub>3</sub> (Sb,As); Close to mertieite, isomertieite and UM1986-02-As:PdSbSn	c
<b>UM1999--Si:Fe</b>	*Zap. Vser. Mineral. Ob. 128 (2), 39	Am. Mineral. 85, 876	FeSi <sub>2</sub> ; not distinct from ferdasilicite	c
<b>UM1999--SiO:</b>	Science 284, 1511	Am. Mineral. 85, 265.	SiO <sub>2</sub> polymorph; later named seifertite: Eur. J. Min. 20 (2009), 523	a
<b>UM1999--SiO:BaFHNaTi</b>	*Dokl. Akad. Nauk 368, 492	Am. Mineral. 85, 1846	(Na,Ba) <sub>5</sub> Ti <sub>3</sub> O <sub>2</sub> (Si <sub>2</sub> O <sub>7</sub> ) <sub>2</sub> (O,OH,F) <sub>3</sub> ; later described under the name nabalamprophyllite: Zap. Vser. Mineral. Ob. 133 (2001) (1), 59	a
<b>UM1999--SiO:CaCeFeHNaSrZr</b>	*Dokl. Akad. Nauk 368, 636	Am. Mineral. 85, 1846	Ca <sub>18</sub> Zr <sub>9</sub> Si <sub>76</sub> Nb <sub>2</sub> Fe <sub>7</sub> Ca <sub>10</sub> Na <sub>32</sub> O <sub>216</sub> (OH,Cl,O) <sub>15</sub> ·9H <sub>2</sub> O; later described under the name feklischevite: Zap. Vser. Mineral. Ob. 130 (2001) (3), 55	a
<b>UM1999--SiO:CaClFeHMnNaREESrTiZr</b>	*Z. Krist. 214, 271	Am. Mineral. 85, 265	A Ti-rich member of the eudialyte group; later described under the name dualite: Zap. Ross. Mineral. Ob. 136 (2007) (4), 31	a
<b>UM1999--SiO:CuFePdRh</b>	S. Afr. J. Geol. 102, 251	Mineral. Mag. 68, 369	Inhomogeneous and probably a mixture	d
<b>UM2000--C:Cr</b>	Can. Mineral. 38, 585		A chromium carbide; no data; perhaps tongbaite or UM1984-13-C:Cr	b



UM2000-//E:CuFePdZn	Mineralium Deposita 35, 762	Mineral. Mag. 68, 615	Pd(Cu,Fe,Zn); indistinguishable from mineral described later as skaergaardite: Mineral. Mag. 68 (2004), 615	a
UM2000-//E:FeTi	Earth Planet. Sci. Lett. 177, 237		FeTi; inadequate data	b
UM2000-//O:BiCuFePdPtTe	Proc. 6th Internat. Cong. Appl. Mineral. (2000), 289	Mineral. Mag. 68, 369	(Pt,Fe,Pd,Cu,Te,Bi)-oxides or hydroxides; inadequate data; probably inhomogeneous	b,d
UM2000-//P:CrFeNi	Am. Mineral. 85, 1082		(Fe,Ni) <sub>4</sub> Cr <sub>2</sub> P <sub>3</sub> . Evidently the same as andreyivanovite: Am. Mineral 93 (2008), 1295	c
UM2000-//PO:AlPbU	Le Regne Minéral 33, 5		A phosphate with undetermined amounts of Al, Pb and U. XRD pattern is similar to ICDD pattern no. 12-259 (synthetic parsonsite)	b,c
UM2000-//S:AsSbTi[1]	J. Czech Geol. Soc. 45, 63	Am. Mineral. 86, 941	Ti(Sb,As) <sub>7</sub> S <sub>11</sub> ; same as UM1982-10-S:AsSbTi	c
UM2000-//S:AsSbTi[2]	J. Czech Geol. Soc. 45, 63	Am. Mineral. 86, 941	Ti(Sb,As) <sub>10</sub> S <sub>16</sub> ; same as UM1970-20-S:AsSbTi	c
UM2000-//S:BiCuPb[1]	Eur. J. Mineral. 12, 899		CuPbBi <sub>7</sub> S <sub>12</sub> ; designated "phase 70"; same as UM1974-09-S:BiCuPb	c
UM2000-//S:BiCuPb[2]	Can. Mineral. 38, 611		Later described under the name salzburgite: Can. Mineral. 40 (2002), 239	a
UM2000-//S:CuFePdPtRh	Can. Mineral. 38, 1251		(Cu,Fe,Pd,Rh,Ru,Os) <sub>8</sub> 93S <sub>8</sub> 07; not distinct from kharaelakhite	c
UM2000-//SiO:CaClFeHMnNaNbSrZr	*Cryst. Reports 45, 930	Am. Mineral. 86, 940	Zr <sub>3</sub> (Ca,Mn) <sub>6</sub> (Fe,Mn,Ti) <sub>3</sub> (Na,Sr) <sub>15</sub> Si <sub>24</sub> O <sub>66</sub> (Nb,Si) <sub>2</sub> Cl(OH) <sub>10</sub> •H <sub>2</sub> O; later described under the name taseqite: Neues Jb. Mineral. Mh. (2004), 83	a
UM2000-//SiO:CaClFeHMnNaNbTiZr	*Dokl. Akad. Nauk, 371, 625	Am. Mineral. 86, 200	(Na,H <sub>3</sub> O) <sub>15</sub> (Ca,Mn,Ce) <sub>6</sub> Fe <sup>3+</sup> <sub>2</sub> Zr <sub>3</sub> (□,Zr)(□,Si) <sub>24</sub> O <sub>66</sub> (O,OH) <sub>6</sub> Cl•2-3H <sub>2</sub> O; later described under the name ikranite: Zap. Vser. Mineral. Ob. 132 (2003) (5), 61	a
UM2000-//SiO:CaClFeHMnNaZr	Crystal. Repts. 45, 591	Crystal. Repts. 52, 47	Na <sub>15</sub> (Na,Ca,REE) <sub>3</sub> (Mn,Ca) <sub>3</sub> Fe <sub>3</sub> Zr <sub>3</sub> Si <sub>26</sub> O <sub>72</sub> (OH,O) <sub>4</sub> Cl•H <sub>2</sub> O; later published under the name voronkovite: Zap. Vseross. Mineral. Ob. 138 (2) (2009), 66	a
UM2000-//SiO:CaClFeHNaNbZr	*Dokl. Akad. Nauk, 370, 477	Am. Mineral. 85, 1846	Na <sub>15</sub> Ca <sub>6</sub> Fe <sub>3</sub> Zr <sub>3</sub> NbSi <sub>25</sub> O <sub>73</sub> (O,OH,H <sub>2</sub> O) <sub>3</sub> Cl <sub>2</sub> ; later described under the name ferrokentbrooksit: Can. Mineral. 41 (2003), 55	a
UM2000-//Te:AuTi	Neues Jb. Mineral. Mh. (2000), 557	Am. Mineral. 86, 941	Au <sub>3</sub> TTe <sub>2</sub> ; appears to be identical to UM1993-29-Te:AuTi	c
UM2001-//C:FeMnSi	*Otechestvennaya Geol. (2001) (5), 32	Am. Mineral. 88, 933	(Mn,Fe) <sub>3</sub> (C,Si); same as UM1989-03-C:FeMnSi	c
UM2001-//E:CuPt	Zap. Vser. Mineral. Ob. 130 (4), 61		(Pt,Au)(Cu,Sb) <sub>3</sub> ; not distinct from UM1992-11-E:CuPtSb	c
UM2001-//E:FeMnSi	*Otechestvennaya Geol. (2001) (5), 32	Am. Mineral. 88, 933	Beta-manganese; same as UM1989-09-E:FeMnSi	c
UM2001-//O:Ti	Earth Planet. Sci. Lett. 192, 485		TiO <sub>2</sub> ; not distinct from UM2000-41-O:Ti. Formerly coded as UM2001-11-O:Ti	c
UM2001-//S:As	Can. Mineral. 39, 809		As <sub>4</sub> S <sub>4</sub> ; appears to be identical to UM1970-19-S:As	c
UM2001-//S:AsCu	Geol. Kazakhstana (2001) (5/6), 75	Zap. Vser. Mineral. Ob. 133 (6), 45	Cu <sub>3</sub> As <sub>4</sub> ; formula corresponds to that of enargite and arsenosulvanite	c
UM2001-//S:AsCuSbZn	Geol. Kazakhstana (2001) (5/6), 75	Zap. Vser. Mineral. Ob. 133 (6), 45	(Cu, Zn) <sub>3</sub> (Sb,As) <sub>3</sub> S <sub>3</sub> ; probably a Zn- & As-bearing variety of skinnerite	c
UM2001-//S:AuBi	SEG Newsletter 44, 14	Can. Mineral. 44, 1127	AuBi <sub>5</sub> S <sub>4</sub> ; same as UM1986-//S:AuBi; later named jonassonite: Can. Mineral. 44 (2006), 1127	a
UM2001-//S:GePbSn	Eur. J. Mineral. 13, 791	Am. Mineral. 87, 357	(Pb,Sn)GeS <sub>3</sub> ; product of spontaneous combustion of coal dump; not a mineral	f
UM2001-//S:GeSn	Eur. J. Mineral. 13, 791	Am. Mineral. 87, 357	SnGeS <sub>3</sub> ; product of spontaneous combustion of coal dump; not a mineral	f
UM2001-//SeO:ClCuHPb	Neues Jb. Mineral. Abh. 177, 37		Pb <sub>4</sub> CuCl <sub>3</sub> (SeO <sub>3</sub> ) <sub>3</sub> (OH); appears to be same as UM1999-29-SeO:ClCuHPb	c
UM2001-//Si:Fe	*Dokl. Earth Sci. 378, 464	Am. Mineral. 87, 182	Fe <sub>2</sub> Si; not distinct on the information available from the mineral later described under the name hapkeite: Proc. Nat. Acad. Sci. 101 (2004), 6847	a
UM2001-//SiO:AlCaClFeMgNa	Can. Mineral. 39, 639	Am. Mineral. 87, 183	Compositions fall within the fields of chloroferropargasite and chlorohastingsite	c
UM2001-//SiO:CaClFeHKNaZr	Cryst. Reports 46, 647		Na <sub>27</sub> K <sub>8</sub> Ca <sub>12</sub> Fe <sub>3</sub> Zr <sub>6</sub> Si <sub>52</sub> O <sub>144</sub> (O,OH,H <sub>2</sub> O) <sub>6</sub> Cl <sub>2</sub> ; later described under the name rastsvetaevite: Zap. Ross. Mineral. Ob. 135 (2006) (1), 49	a
UM2001-//SiO:CaFeHKNaSrTiZr	*Cryst. Reports 46, 752	Am. Mineral. 87, 767	(Na,Sr,K) <sub>35</sub> Ca <sub>12</sub> Fe <sub>3</sub> Zr <sub>6</sub> Ti <sub>5</sub> Si <sub>104</sub> (O,OH,H <sub>2</sub> O) <sub>9</sub> Cl <sub>3</sub> ; later named labyrinthite: Zap. Ross. Mineral. Ob. 107 (2006) (2), 340	a
UM2001-//SiO:CaHKMnTi	Cryst. Reports 48, 569	Am. Mineral. 87, 183	K <sub>3</sub> Ca(K,Ca,Ba,□)Mn <sub>2</sub> Ti <sub>8</sub> Si <sub>16</sub> O <sub>48</sub> (O,OH) <sub>8</sub> •10H <sub>2</sub> O; appears to be the same as gutkovaite-Mn: Zap. Vser. Mineral. Ob. 131 (2002) (2), 51	a
UM2001-//SiO:Zr	Geology 29, 371	Am. Mineral. 86, 1114	ZrSiO <sub>4</sub> ; a high pressure dimorph of zircon subsequently described under the name reidite: Am. Mineral. 87 (2002), 562	a
UM2001-//Te:AgPd	Can. Mineral. 39, 639		Pd <sub>6</sub> AgTe <sub>4</sub> ; same as UM1991-25-Te:AgPd	c
UM2001-//Te:BiSe	Neues Jb. Mineral. Mh. (2001), 289	Am. Mineral. 87, 182	Bi <sub>2</sub> (Te,Se); not distinct from UM1980-16-Te:Bi on the basis of available data	c
UM2001-//VO:FeHMnPbZn	*Dokl. Akad. Nauk 378, 204-207	Am. Mineral. 87, 183	(Pb,Zn) <sub>2</sub> (Fe <sup>3+</sup> ,Mn <sup>3+</sup> )[VO <sub>4</sub> ] <sub>2</sub> (OH); later described under the name calderonite: Am. Mineral. 88 (2003), 1703	a
UM2002-//Bi:BiPd	Can. Mineral. 40, 329		Pd(Bi,Pb); not distinct from polarite	c
UM2002-//BiSb:BiPd	Can. Mineral. 40, 277		Pd <sub>2</sub> BiSb; "Un7"; ( Table 7, anal. 17 & 18); apparently the same as UM1985-01-Bi:BiPd; formerly coded as UM2002-01-BiSb:BiPd	c
UM2002-//E:AgHg	Can. Mineral. 40, 225		Ag <sub>0.7-0.8</sub> Hg <sub>0.2-0.3</sub> ; probably not distinct from luanheite	c
UM2002-//E:CuFePt	Can. Mineral. 40, 329		Pt <sub>2</sub> CuFe; not definitely distinct from tulameenite	c
UM2002-//O:AlCa	Meteor. Planet. Sci. 37, 1337		CaAl <sub>2</sub> O <sub>4</sub> ; later described under the name dmitryivanovite: Am. Mineral. 94 (2009), 746	a
UM2002-//O:FeRu	9 <sup>th</sup> Internat. Platinum Symp. Ext. Abst., 153	Mineral. Mag. 68, 369	(Ru,Fe)-oxide; no data	b
UM2002-//O:Pd	Can. Mineral. 40, 1451		~PdO; ("Table 9", anal. 5 & 6); not distinct from UM1995-17-O:CuPd	c

UM2002-//O:Pt	Can. Mineral. 40, 419		An intimate mixture of several phases	d
UM2002-//OH:CuPt	Can. Mineral. 40, 419		Inadequate data	b
UM2002-//OS:CuFe	Geol. Rudn. Mest. 44, 385	Zap. Vser. Mineral. Ob. 133 (6), 45	Inadequate data; an oxysulphide of Cu-Fe	b
UM2002-//PO:Ca	Geochim. Cosmochim. Acta 66, 2439	Am. Mineral. 88, 478	Gamma-Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> ; later described under the name tuite: Eur. J. Mineral. 15 (2003), 1001	a
UM2002-//PO:FeH	Mineralien-Welt 13 (6), 18	Eur. J. Mineral. 18, 793	Fe <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> (OH) <sub>3</sub> ·5H <sub>2</sub> O; later named allanpringite: Eur. J. Mineral. 18 (2006), 793	a
UM2002-//S:AgBi	*Aufschluss 23, 279	Am. Mineral. 88, 1628	Ag <sub>2</sub> Bi <sub>2</sub> S <sub>3</sub> ; cubic dimorph of matildite; previously named schapbachite	c
UM2002-//S:CuFe	Geol. Rudn. Mest. 44, 385	Zap. Vser. Mineral. Ob. 133 (6), 45	Inadequate data	b
UM2002-//S:CuFeIrNiPdPtRh	Can. Mineral. 40, 357		Very low total; probably equivalent to UM1990-38-S:CuFeIrNiPdPtRh	c
UM2002-//S:CuFeIrNiPt	Can. Mineral. 40, 395		(Fe,Cu,Ni)(Ir,Pt)S; inadequate data	b
UM2002-//S:CuFeK	*Geol. Ore Deposits 44, 385	Am. Mineral. 88, 934	KCu <sup>1+</sup> <sub>19</sub> Cu <sup>2+</sup> <sub>18</sub> Fe <sup>2+</sup> <sub>10</sub> S <sub>38</sub> ; described earlier as "Cu <sub>4</sub> FeS <sub>4</sub> "; same as UKI-1990-(S:CuFeK)	c
UM2002-//S:FeGaMgMnZn	Meteoritics Planet. Sci. 37, 577		(Fe,Zn,Ga,Mn,Mg)S; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
UM2002-//S:FeIrNi	Can. Mineral. 40, 481		Inadequate data	b
UM2002-//S:FeMnZn	Meteor. Planet. Sci. 37, 577		(Fe,Zn,Mn)S; one of many reports of this mineral in the meteoritical and planetary sciences literature. Eventually named rudashevskyite: Am. Mineral. 93 (2008), 203	a
UM2002-//Sb:BiPd	Can. Mineral. 40, 277		"Un7" analyses 15 & 16; indistinguishable from UM1961-08-Sb:BiPd	c
UM2002-//Se:CuFe	Can. Mineral. 40, 225		(Fe <sub>0.84</sub> Cu <sub>0.14</sub> )Se <sub>2.01</sub> ; there appears to be no reason to consider this to be other than Cu-bearing ferroselite	c
UM2002-//Se:CuPd[1]	Can. Mineral. 40, 419		A mixture of several phases	d
UM2002-//Se:CuPd[2]	Can. Mineral. 40, 419	Am. Mineral. 88, 254	Cu <sub>2</sub> Pd <sub>3</sub> Se <sub>4</sub> ; later named jaguëite: Can. Mineral. 42 (2004), 1745	a
UM2002-//Se:HgPd	Mineral. Mag. 66, 173		Pd <sub>2</sub> HgSe <sub>3</sub> ; no data; same as UM1998-//Se:HgPd	b,c
UM2002-//SiO:AlFeHMgNa	Clay Minerals 34, 579	Am. Mineral. 88, 1628	(Na,K) <sub>0.42</sub> (Fe <sup>3+</sup> ,Mg,Al,Fe <sup>2+</sup> ,Cr,Ni) <sub>2.17</sub> Si <sub>4</sub> O <sub>10</sub> (OH) <sub>2</sub> ; possibly nontronite, sepiolite or a mixture of clay mineral species	d
UM2002-//SiO:CaFeTi	Mineral. Petrol. 76, 1		Not distinguishable from schorlomite	c
UM2002-//SiO:FeHKNaNbTi	Cryst. Reports 47, 408	Am. Mineral. 89, 1829	NaK <sub>3</sub> Fe(Ti,Nb) <sub>4</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>2</sub> (O,OH) <sub>4</sub> ·6H <sub>2</sub> O; Nb-rich analogue of labuntsovite-Fe later described under the name neskevaaraitite-Fe: New Data on Minerals 38 (2003), 8	a
UM2002-//Te:BiPdSb[1]	Can. Mineral. 40, 277		Pd(Te,Sb,Bi); "Un1"; indistinguishable from UM1974-19-Te:BiNiPdSb	c
UM2002-//Te:BiPdSb[2]	Can. Mineral. 40, 277		"Un5"; indistinguishable from testibiopalladite	c
UM2002-//Te:NiPdSb	Can. Mineral. 40, 277		"Un2"; indistinguishable from hexatestibiopannickelite	c
UM2002-//Te:PdSb	Can. Mineral. 40, 277		"Un4"; indistinguishable from borovskite	c
UM2003-//AsO:AlCaClCuHNa	Mineral. Record 34 (4), 315		"Unknown #1"; inadequate data; later described under the names barahonaite-(Al) and barahonaite-(Fe): Can. Mineral. 46 (2008), 205	b,a
UM2003-//E:FeNiPt	Neues Jb. Mineral. Abh. 179, 143		~Pt <sub>2</sub> (Fe,Ni); not distinct from UM1996-13-E:FePt	c
UM2003-//O:CrFe	Geochim. Cosmochim. Acta 67, 3937	Am. Mineral. 89, 897	FeCr <sub>2</sub> O <sub>4</sub> ; a high-pressure, high-temperature polymorph of chromite; later described under the name xieite: Chinese Science Bulletin 53 (2008), 3341	a
UM2003-//O:FeHrOsRu	Can. Mineral. 41, 597		(Ru,Os,Fe,Ir) <sub>2-3</sub> (O) <sub>1-2</sub> ·nH <sub>2</sub> O; inadequate data; several compounds and H <sub>2</sub> O likely present.	b,d
UM2003-//O:Pd	Mineral. Mag. 67, 453		Pd-oxides of very variable composition and perhaps in part equivalent to UM1995-17-O:CuPd	b,c
UM2003-//OC:MnH	Erzgräber 17, 9		Mn <sub>2</sub> C <sub>2</sub> O <sub>4</sub> ·2H <sub>2</sub> O; later described under the name lindbergite: Am. Mineral. 89 (2004), 1087	a
UM2003-//S:AgFeTe	Eur. J. Mineral. 15, 147		Ag <sub>9</sub> FeTe <sub>2</sub> S <sub>4</sub> ; later described under the name chenguodaite: Chinese Science Bulletin 53 (2008), 1	a
UM2003-//S:As	Eur. J. Mineral. 15, 283	Zap. Vser. Mineral. Ob. 133 (6), 45	As <sub>4</sub> S <sub>4</sub> ; probably the same as UM1970-18-S:As	c
UM2003-//S:CuFeIrNiRh[1]	Can. Mineral. 41, 597		(Ir,Rh)(Ni,Cu,Fe) <sub>2</sub> S <sub>4</sub> ; not distinct from UM1974-11-S:CuFeIrNi or perhaps UM1999-25-S:CuIrNiRh	c
UM2003-//S:CuFeIrNiRh[2]	Can. Mineral. 41, 597		(Ir,Rh)(Fe,Ni,Cu) <sub>2</sub> S <sub>3</sub> ; not distinct from UM1995-29-S:CuFeIrNiRh	c
UM2003-//S:FeZn	Lunar Planet. Sci. 34, 1211		(Fe,Zn)S; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
UM2003-//SiO:AlCaClFeHHfKMnNaSrTiZr	Cryst. Reports 48, Suppl. 1, S69	Cryst. Reports 52, 47	Designated "hydrated eudialyte-II"; reported data inadequate for subsequent recognition elsewhere	b
UM2003-//SiO:AlCsFLi	Am. Mineral. 88, 1832		CsLi <sub>2</sub> AlSi <sub>4</sub> O <sub>10</sub> (F,OH) <sub>2</sub> ; Cs-analogue of polyolithionite; later described under the name sokolovaite: New Data on Minerals 41 (2006), 5. Formerly coded as UM2003-29-SiO:AlCsFLi	a
UM2003-//SiO:BaCaCeClFeHHfKMnNaNbSrTi	Cryst. Reports 48, Suppl. 1, S69	Cryst. Reports 52, 47	Designated "Mineral 1408" - eudialyte group member; reported data inadequate for subsequent recognition elsewhere	b

UM2003-//SiO:BaCaHKNaNbSrTi	Dokl. Akad. Nauk 393, 784	Am. Mineral. 89, 1829	[Sr <sub>0.9</sub> K <sub>0.8</sub> Na <sub>0.4</sub> Ca <sub>0.4</sub> Ba <sub>0.3</sub> ][(H <sub>2</sub> O) <sub>0.8</sub> Sr <sub>0.4</sub> ][Ti <sub>5.6</sub> Nb <sub>2.4</sub> (OH, O) <sub>8</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>4</sub> ]*8.3H <sub>2</sub> O; later named tsepinite-Sr: New Data on Minerals 40 (2005), 11.	a
UM2003-//SiO:CaCeClFeHMnNaSrTiZr	Cryst. Reports 48, Suppl. 1, S69	Cryst. Reports 52, 47	Designated "hydrated eudialyte-I"; reported data inadequate for subsequent recognition elsewhere	b
UM2003-//SiO:CaFHKMnNa	*Dokl. Chem. 391, 177	Am. Mineral. 89, 470	Ca <sub>4.5</sub> Mn <sub>0.45</sub> Fe <sub>0.05</sub> Na <sub>3</sub> K <sub>3</sub> Si <sub>2</sub> O <sub>30</sub> F <sub>2.8</sub> (OH)*1.2H <sub>2</sub> O; later described under the name fluorcanasite: Zap. Ross. Mineral. Ob. 138 (2) (2009), 52	a
UM2004-//As:IrSSb	Geol. Geofiz. 45, 1128		IrAs(Sb,S); not distinct from UM1991-01-As:IrSb	c
UM2004-//As:NiRh	Can. Mineral. 42, 563		RhNiAs; same as UM1983-03-As:NiRh	c
UM2004-//As:PtTe	Mineral. Petrol. 82, 137		Pd <sub>3</sub> (As,Te); appears to be Te-bearing vincentite	c
UM2004-//AsTe:Pt	Mineral. Petrol. 82, 137		Pd <sub>8</sub> (As,Te); appears to be same as UM1992-09-E:CuFePt	c
UM2004-//AsO:CaCoHMg	Z. Krist. (NCS) 219, 341		Ca <sub>2</sub> (Co,Mg)[AsO <sub>4</sub> ] <sub>2</sub> *2H <sub>2</sub> O; appears to be the same as roselite-B	c
UM2004-//AsO:CoFeHNiPb	Lapis (2004) (2), 18		Pb(Ni,Co,Fe) <sub>2</sub> [AsO <sub>4</sub> ] <sub>2</sub> (H <sub>2</sub> O,OH) <sub>2</sub> ; may be the Nd analogue of tsumcorite; no data	b
UM2004-//AsO:HU	Erzgräber 18, 24	Am. Mineral. 90, 1232	(UO <sub>2</sub> )H(AsO <sub>3</sub> )*H <sub>2</sub> O; apparently the same as UM1958-05-AsO:HU; mineral "D"; formerly coded as UM2004-003-AsO:HU	c
UM2004-//E:AgAuCuZn	Dokl. Earth Sci. 395A, 448		(Cu,Au,Ag) <sub>4</sub> Zn; same as UM2003-03-E:AgAuCuZn	c
UM2004-//E:AuCu	Mineral. Mag. 68, 615		Au <sub>3</sub> Cu; inadequate data and perhaps same as UM1991-06-E:AuCu	b,c
UM2004-//E:AuCuPd[1]	Mineral. Mag. 68, 615		PdAuCu <sub>2</sub> ; inadequate data	b
UM2004-//E:AuCuPd[2]	Mineral. Mag. 68, 615		(Cu,Pd,Au); inadequate data	b
UM2004-//E:CuFePdPt	Mineral. Mag. 68, 615		(Pt,Cu,Fe,Pd); inadequate data	b
UM2004-//E:CuPdPt[1]	Mineral. Mag. 68, 615		PdCu <sub>3</sub> ; apparently the same as nielsenite: Can. Mineral. 46 (2008), 709	b
UM2004-//E:CuPdPt[2]	Mineral. Mag. 68, 615		(Pt,Pd)Cu <sub>3</sub> ; inadequate data	b
UM2004-//E:CuPdPt[3]	Can. Mineral. 42, 499		(Pd,Pt)Cu; no data; probably same as UM1975-//E:CuFePdPt & UM1999-//E:CuPdPt	b,c
UM2004-//E:CuPdPt[4]	Dokl. Earth Sci. 396 (4), 508		(Pd,Pt)Cu <sub>3</sub> ; Table 1, anal. 17. Apparently equivalent to nielsenite: Can. Mineral. 46 (2008), 709	c
UM2004-//E:CuPdSn	Mineral. Mag. 68, 615		(Pd,Cu,Sn); inadequate data	b
UM2004-//O:BiH	Can. Mineral. 42, 601		Bi <sub>2</sub> O <sub>3</sub> *3H <sub>2</sub> O; appears to be identical to UM1943-02-OH:Bi	c
UM2004-//O:CeHNdSmW	Lapis (2004) (2), 18		(Nd,Ce,Sm)W <sub>2</sub> O <sub>6</sub> (OH) <sub>3</sub> ; may be the Nd-analogue of ytrotungstite; no data	b
UM2004-//O:CrFeIrOsPtRhRu	Mineral. Mag. 68, 369		An amorphous alteration product not necessarily of fixed composition	b,d
UM2004-//O:IrOsRu	Mineral. Mag. 68, 369		(Os,Ir,Ru)O; inadequate data	b
UM2004-//PO:BeCaFeHMg	Dokl. Chem. 398, 191		Ca <sub>2</sub> Be <sub>4</sub> (Fe,Mg) <sub>5</sub> (PO <sub>4</sub> ) <sub>6</sub> (OH) <sub>4</sub> *6H <sub>2</sub> O; later described under the name atencioite: New Data on Minerals 41 (2006), 18. Formerly coded as UM2004-30-PO:BeCaFeHMg	a
UM2004-//PO:FeHK	Der Erzgräber 18, 17	Am. Mineral. 90, 1228	KFe <sup>3+</sup> <sub>3</sub> H <sub>8</sub> (PO <sub>4</sub> ) <sub>6</sub> *6H <sub>2</sub> O; later name gegenbachite: Aufschluss 58 (2007), 125	a
UM2004-//S:AgSbTe	Zap. Vser. Mineral. Ob. 133 (3), 45		Ag <sub>18</sub> Sb <sub>2</sub> Te <sub>3</sub> S <sub>9</sub> ; no data	b
UM2004-//S:AgSnTe	Zap. Vser. Mineral. Ob. 133 (3), 45		Ag <sub>8</sub> SnTe <sub>2</sub> S <sub>4</sub> ; no data	b
UM2004-//S:BiTe	Austral. J. Mineral. 10, 7		Bi <sub>10</sub> Te <sub>2</sub> S <sub>5</sub> ; appears to be the same as UM1962-//S:BiTe	b
UM2004-//S:CoCuNiPt	Can. Mineral. 42, 455		Cu <sub>2</sub> (Ni,Co)Pt <sub>3</sub> S <sub>8</sub> ; not compositional distinct from UM1981-17-S:CuIrPtRh	c
UM2004-//S:CuFeGeZn	Can. Mineral. 42, 1757		Cu <sub>8</sub> Fe <sub>2</sub> ZnGe <sub>2</sub> S <sub>12</sub> ; no data	b
UM2004-//S:CuFeIrNiPtRuRh	Geol. Geofiz. 45, 1128		(Fe,Ni,Cu) <sub>1.64</sub> (Rh,Pt,Ru,Ir) <sub>1.34</sub> S <sub>3</sub> ; perhaps not distinct from UM2002-19-S:CuFeIrNiPtRh	c
UM2004-//S:CuFeNiRh	Can. Mineral. 42, 499		Rh(Ni,Fe,Cu) <sub>2</sub> S <sub>3</sub> ; no data; same as UM1999-//S:CuFeNiRh	b,c
UM2004-//S:CuNiPtRh	Can. Mineral. 42, 455		(Pt,Rh,Ir) <sub>3</sub> (Ni,Co,Fe)Cu <sub>2</sub> S <sub>8</sub> ; not distinct from UM1981-17-S:CuIrPtRh and perhaps related to malanite	c
UM2004-//S:FeMnZn	Mineral. Mag. 68, 787		(Fe,Zn,Mn)S; cf. UM1972-//S:FeMnS; later described under the name rudashevskyite: Am. Mineral. 93 (2008), 902	a
UM2004-//S:FeNiRh	Can. Mineral. 42, 563		(Fe,Ni,Rh)S; indistinguishable from UM2002-19-S:CuFeIrNiPtRh	c
UM2004-//S:NiPdPt	Can. Mineral. 42, 423		(Pd,Ni,Pt)S; Table 3, anal. #6; probably vysotskite	c
UM2004-//S:PbSe	Zap. Vser. Mineral. Ob. 133 (3), 45		Pb(S,Se); no data; perhaps Se-bearing galena	b,c
UM2004-//S:PtPt	Can. Mineral. 42, 423		(Pt,Pd)S; Table 3, anal. #5 & #7; presumably cooperite or braggite	c
UM2004-//S:PtRh[1]	Ann. Naturhist. Mus. Wien 105A, 1		(Rh,Pt) <sub>5</sub> S <sub>4</sub> ; appears to be a Pt-bearing variety of UM1995-32-S:Rh	c
UM2004-//S:PtRh[2]	Ann. Naturhist. Mus. Wien 105A, 1		(Rh,Pt) <sub>3</sub> S <sub>4</sub> ; appears to be kingstonite; same as UM1983-//S:IrPtRh	c
UM2004-//Sb:CuPd	Dokl. Earth Sci. 396 (4), 508		Pd <sub>2</sub> CuSb; anal. 9-11, Table 1; appears to be the same as UM1961-09-Sb:CuPd	c
UM2004-//Se:Bi	Zap. Vser. Mineral. Ob. 133 (3), 45		Bi <sub>3</sub> Se <sub>2</sub> ; no data	b
UM2004-//Se:BiTe	Zap. Vser. Mineral. Ob. 133 (3), 45		Bi <sub>3</sub> SeTe; no data; cf. UM1983-29-Te:BiSSe	b,c
UM2004-//SiO:AlHNaSr	Dokl. Earth Sci. 395 (2), 260		Na <sub>0.5</sub> Sr <sub>0.25</sub> Al <sub>2</sub> (Na <sub>0.25</sub> □ <sub>0.75</sub> )[Al <sub>1.25</sub> Si <sub>2.75</sub> O <sub>10</sub> ](OH) <sub>2</sub> ; a Sr-bearing brammallite	c
UM2004-//SiO:CaFHNbSTi	Can. Mineral. 42, 769		Inadequate data; "UK61a" possibly a highly disordered polymorph of hainheaultite: (Na,Ca) <sub>5</sub> Ca(Ti,Nb) <sub>5</sub> (Si,S) <sub>12</sub> O <sub>34</sub> (OH,F) <sub>8</sub> *5H <sub>2</sub> O	b,c
UM2004-//Te:AgSSe	Zap. Vser. Mineral. Ob. 133 (3), 45		Ag <sub>2</sub> (Te,Se,S); perhaps Se- and S-bearing hessite	c
UM2004-//Te:AuBiFePd	Can. Mineral. 42, 261		FeAuBiPd <sub>4</sub> Te <sub>3</sub> ; no data	b
UM2004-//Te:AuBiSb	Zap. Vser. Mineral. Ob. 133 (3), 45		Au <sub>5</sub> Sb <sub>2</sub> Bi <sub>2</sub> Te <sub>13</sub> ; no data	b
UM2004-//Te:AuSb[1]	Zap. Vser. Mineral. Ob. 133 (3), 45		AuSbTe; no data	b
UM2004-//Te:AuSb[2]	Zap. Vser. Mineral. Ob. 133 (3), 45		Au <sub>5</sub> SbTe; no data	b
UM2004-//Te:BiPdPt	Can. Mineral. 42, 423		(Pd,Pt)(Te,Bi) <sub>1.92</sub> ; Table 3, anal. #8; probably merenskyite	c

UM2004-//Te:BiPt	Can. Mineral. 42, 423		Pt(Te,Bi) <sub>2</sub> ; Table 3, anal. #9; probably moncheite	c
UM2004-//TeAs:Pd	Can. Mineral. 42, 563		Pd <sub>11</sub> Te <sub>2</sub> As <sub>2</sub> ; appears to be the same as UM1996-02-As:PtTe	c
UM2005-//As:NiRh	Can. Mineral. 43, 1711		RhNiAs; same as UM1983-03-As:NiRh	c
UM2005-//As:PtTe	Can. Mineral. 43, 1711		Pd <sub>11</sub> Te <sub>2</sub> As <sub>2</sub> ; same as UM1996-02-As:PtTe	c
UM2005-//As:Pt	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Pt,Ir) <sub>2</sub> As <sub>3</sub> ; identical in every respect to UM1991-//As:IrPt	c
UM2005-//Bi:Pd	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	Pd <sub>5</sub> Bi <sub>2</sub> ; appears to be the same as UM1961-03-Bi:Pt	c
UM2005-//Bi:PtSb	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Pt,Pd)(Bi,Sb); apparently a compositional variant of UM1974-02-Bi:AsPdPtSb	c
UM2005-//Bi:Pt	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	PtBi; apparently a compositional variant of UM1974-02-Bi:AsPdPtSb	c
UM2005-//Cl:BrHgI	Mineral. Record 36, 337		Hg-I-(Cl,Br); "CCUK-12" inadequate data	b
UM2005-//Cl:BrHgIN	Mineral. Record 36, 337		Hg-N-I-(Cl,Br); "CCUK-10" inadequate data	b
UM2005-//Cl:BrHgIO	Mineral. Record 36, 337		Hg <sup>1+</sup> <sub>10</sub> Hg <sup>2+</sup> <sub>3</sub> O <sub>6</sub> I <sub>2</sub> (Cl,Br) <sub>2</sub> ; "CCUK-15"; inadequate data	b
UM2005-//Cl:CdHN	Eur. J. Mineral. 17, 107		NH <sub>4</sub> CdCl <sub>3</sub> ; inadequate data	b
UM2005-//Cl:PbTI	Eur. J. Mineral. 17, 107		Pb <sub>2</sub> TiCl <sub>5</sub> ; later named hephaistosite: Can. Mineral. 46 (2008), 701	a
UM2005-//Cl:BrPbTI	Eur. J. Mineral. 17, 107		PbTi <sub>3</sub> (Cl,I,Br) <sub>5</sub> ; inadequate data	b
UM2005-//E:AuCuPd	Can. Mineral. 43, 1711		Cu <sub>2</sub> PdAu; same as UM2004-08-E:AuCuPd	c,b
UM2005-//E:CuPbPdPt	Can. Mineral. 43, 1663		(Pd,Pt) <sub>4</sub> (Pb,Cu); appears to be Cu-rich zvyaginysevite	c
UM2005-//E:CuPdTe	Can. Mineral. 43, 1711		Pd(Cu,Te); same as UM2004-09-E:CuPdTe	c,b
UM2005-//E:CuZn	Can. Mineral. 43, 1663		(Zn,Cu); inadequate data; possibly an artifact; see also UM1981-//E:CuZn[1,2]	b,f
UM2005-//E:FePd	Can. Mineral. 43, 1711		Pd <sub>2</sub> Fe; no data	b
UM2005-//I:BrClHHgINO	Mineral. Record 36, 337		Hg <sup>2+</sup> <sub>2</sub> N(I,Cl,Br)•H <sub>2</sub> O; "CCUK-18"; inadequate data; perhaps an I-analogue of mosesite	b
UM2005-//I:TI	Eur. J. Mineral. 17, 107		TII (thallium iodide); inadequate data	b
UM2005-//O:AsHPdSbTe	Mineral. Mag. 69, 981		~(Pd,Sb,As,Te)O•nH <sub>2</sub> O; probably same as UM1999-18-OH:Pd	c
UM2005-//O:AsPdSbTe	Mineral. Mag. 69, 981		~(Pd,Sb,As,Te) <sub>2</sub> O; variable composition; probably same as UM2003-12-O:Pd	c
UM2005-//O:CaFeSiTi	Eur. J. Mineral. 17, 623		Fe-oxide?; incomplete analysis (#8) with very low total	b
UM2005-//O:CuFeNiPt	Can. Mineral. 43, 1711		~(Pt,Fe,Cu,Ni) <sub>4</sub> O; may be inhomogeneous mixture of more than one phase or same as UM1994-17-O:FePt	d,c
UM2005-//O:CuFeNiPtSi	Can. Mineral. 43, 1711		~(Pt,Fe,Cu,Si,Ni) <sub>7</sub> O; may be inhomogeneous mixture of more than one phase	d
UM2005-//O:CuFePt	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Pt,Cu,Fe) <sub>2</sub> O <sub>3</sub> ; likely a compositional variant of UM1996-22-O:FePt	c
UM2005-//O:CuFePtSi	Can. Mineral. 43, 1711		~Pt <sub>2</sub> (Fe,Cu,Si) <sub>3</sub> O <sub>4</sub> ; may be inhomogeneous mixture of more than one phase	d
UM2005-//O:FePd	Mineral. Mag. 69, 981		~(Pd,Fe)O; variable composition; probably same as UM1995-17-O:CuPd	c
UM2005-//O:FePt[1]	Can. Mineral. 43, 1711		~(Pt,Fe) <sub>3</sub> O; may be inhomogeneous mixture of more than one phase	d
UM2005-//O:FePt[2]	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Pt,Fe)O <sub>2</sub> ; appears to be the same as UM1996-23-O:FePt	c
UM2005-//O:FePtSi[1]	Can. Mineral. 43, 1711		~(Pt,Fe,Si) <sub>2</sub> O; may be inhomogeneous mixture of more than one phase or perhaps the same as UM1994-15-O:FePt	d,c
UM2005-//O:FePtSi[2]	Can. Mineral. 43, 1711		~(Pt,Fe,Si)O; may be inhomogeneous mixture of more than one phase or may perhaps be same as UM1994-13-O:FeIrPtRh	d,c
UM2005-//O:FeRhRu	Can. Mineral. 43, 1711		(Ru,Rh,Fe) <sub>3</sub> O <sub>2</sub> ; very inhomogeneous and may be a mixture	d
UM2005-//O:PbPd	Can. Mineral. 43, 1663		Pd <sub>7</sub> PbO <sub>8</sub> ; same mineral as UM1999-16-O:PbPd	c
UM2005-//O:PbV	Can. Mineral. 43, 1663		Pb <sub>4</sub> O(VO <sub>4</sub> ) <sub>2</sub> ; same as UM1999-17-O:PbV	c
UM2005-//O:PdPtSi	Can. Mineral. 43, 1711		~(Pt,Si,Pd) <sub>11</sub> O <sub>2</sub> ; may be inhomogeneous mixture of more than one phase	d
UM2005-//O:Ru	Can. Mineral. 43, 1711		RuO <sub>2</sub> ; probably same as UM1997-33-O:FeHglrOsRu	c
UM2005-//O:Ti	Am. Mineral. 90, 1458		TiO <sub>2</sub> ; orthorhombic; appears to be same as UM2000-41-O:Ti	b
UM2005-//OH:Mn	Am. Mineral. 90, 718		"Vernadite-like mineral"; inadequate data	b
UM2005-//PO:	*Mineral. Zhurn. 27 (2), 112	Am. Mineral. 91, 1206	A phosphate of unknown composition	b
UM2005-//S:AsBiPbCl	Eur. J. Mineral. 17, 107		Pb <sub>3</sub> (As,Bi) <sub>3</sub> S <sub>7</sub> Cl; inadequate data	b
UM2005-//S:AuPd	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	Pd-Au-bearing sulphide; no analytical data	b
UM2005-//S:BiBrClIbPb	Eur. J. Mineral. 17, 107		BiS(Cl,I,Br); inadequate data	b
UM2005-//S:BiCdPbSe[1]	Eur. J. Mineral. 17, 107		Cd <sub>4</sub> PbBi <sub>12</sub> (S,Se) <sub>23</sub> ; a sulphosalt; inadequate data	b
UM2005-//S:BiCdPbSe[2]	Eur. J. Mineral. 17, 107		CdPb <sub>4</sub> Bi <sub>6</sub> (S,Se) <sub>14</sub> ; a sulphosalt; inadequate data	b
UM2005-//S:BiCuPb	Can. Mineral. 43, 899		CuPbBi <sub>4</sub> S <sub>8</sub> ; not distinct from salzburgite	c
UM2005-//S:CrHHgO	Mineral. Record 36, 337		Hg <sup>2+</sup> -CrO <sub>4</sub> -S-H <sub>2</sub> O; "CCUK-8"; inadequate data	b
UM2005-//S:CuFeIrNiPbPt	Can. Mineral. 43, 1663		(Cu,Ni,Fe) <sub>3+x</sub> (Fe,Pb)(Rh,Pd,Ir) <sub>8-x</sub> S <sub>16</sub> ; same as UM2004-41-S:CuFeIrNiPbPt	c
UM2005-//S:CuFeIrNiPtRh	Can. Mineral. 43, 1663		Rh <sub>1-x</sub> (Ni,Fe,Cu) <sub>2+x</sub> S <sub>3</sub> ; appears to be same as UM2002-18-S:CuFeIrNiPtRh	c
UM2005-//S:CuPbPt	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	Cu <sub>3</sub> Pb(Pt,Ir,Rh) <sub>8</sub> S <sub>16</sub> ; a compositional variant of UM2004-36-S:CuFeIrPbPt	c
UM2005-//S:FeNiRh	Can. Mineral. 43, 1711		(Rh,Fe,Ni) <sub>9</sub> S <sub>8</sub> ?; inadequate data; probably miassite	c,b
UM2005-//S:IrPtRh	Can. Mineral. 43, 1687		(Ir,Rh,Pt)S; probably same as UM1974-12-S:IrNiRh	c
UM2005-//SO:Al	Am. Mineral. 90, 1729		Mineral "UP"; Al-S-O; inadequate data; product of coal combustion	b,f
UM2005-//SOSiO:Ca	Eur. J. Mineral. 17, 623		Ca-silicate-sulphate; incomplete analysis (#6) with very low total	b
UM2005-//Sb:PdRh	Can. Mineral. 43, 1711		(Pd,Rh) <sub>2</sub> Sb; no data; would appear to be Rh-rich naldrettite	b,c
UM2005-//Se:Bi	Can. Mineral. 43, 899		BiSe; nevskite	c
UM2005-//SiO:CCaClFeHKNaNbZr	Dokl. Akad. Nauk 400, 640	Am. Mineral. 90, 1467	(Na,Ce) <sub>9</sub> (Ca,Na,K) <sub>12</sub> Zr <sub>3</sub> Fe <sub>2</sub> (Nb,Si) <sub>24</sub> O <sub>72</sub> (CO <sub>3</sub> )Cl <sub>0.5</sub> •0.5H <sub>2</sub> O; later named mogovidite: Zap. Ross. Mineral. Ob. 134 (2005) (6), 36	a

<b>UM2005--//SiO:CCaCIHKMnNaNbZr</b>	Dokl. Akad. Nauk 403, 636	Dokl. Chem. 403, 148	Na <sub>12</sub> (K,Sr,Ce) <sub>3</sub> Ca <sub>6</sub> Mn <sub>3</sub> Zr <sub>3</sub> Nb <sub>5</sub> Si <sub>3</sub> (Si <sub>3</sub> O <sub>9</sub> ) <sub>2</sub> (Si <sub>9</sub> O <sub>27</sub> ) <sub>2</sub> (O,OH) <sub>4</sub> (H <sub>2</sub> O,CO <sub>3</sub> ,Cl) <sub>2</sub> ; a K-analogue of kentbrooksit; later named andrianovite. Zap. Ross. Mineral. Ob. 137 (2008) (2), 43. Formerly coded as UM2005-30-SiO:CCaHKMnNaNbZr	a
<b>UM2005--//SiO:Ca[1]</b>	Eur. J. Mineral. 17, 623		Ca-silicate; incomplete analysis (#1); probably larnite	b,c
<b>UM2005--//SiO:Ca[2]</b>	Eur. J. Mineral. 17, 623		Ca-silicate; incomplete analysis (#7) with very low total	b
<b>UM2005--//SiO:CaFe</b>	Eur. J. Mineral. 17, 623		Ca,Fe-silicate; incomplete analysis (#10) with very low total	b
<b>UM2005--//SiO:CaMg[1]</b>	Eur. J. Mineral. 17, 623		Ca,Mg-silicate; incomplete analysis (#2); probably bredigite	b,c
<b>UM2005--//SiO:CaMg[2]</b>	Eur. J. Mineral. 17, 623		Ca,Mg-silicate; incomplete analysis (#3) with very low total	b
<b>UM2005--//SiO:CaMg[3]</b>	Eur. J. Mineral. 17, 623		Ca,Mg-silicate; incomplete analysis (#5) with very low total	b
<b>UM2005--//SiO:CaMg[4]</b>	Eur. J. Mineral. 17, 623		Ca,Mg-silicate; incomplete analysis (#9) with very low total	b
<b>UM2005--//SiO:FePb</b>	Can. Mineral. 43, 1663		Inadequate data; very low total (<80%); perhaps hydrous	b
<b>UM2005--//SiO:HMn</b>	Am. Mineral. 90, 371		An amorphous precipitate from brine; inadequate data	b
<b>UM2005--//SiO:Hg[1]</b>	Mineral. Record 36, 337		Hg-silicate; "CCUK-13"; inadequate data	b
<b>UM2005--//SiO:Hg[2]</b>	Mineral. Record 36, 337		Hg-silicate; "CCUK-14"; inadequate data	b
<b>UM2005--//SiO:Mg</b>	Eur. J. Mineral. 17, 623		Ca,Mg-silicate; incomplete analysis (#7) with very low total	b
<b>UM2005--//Te:AgPd</b>	Can. Mineral. 43, 1355		(Pd,Ag) <sub>3</sub> Te <sub>4</sub> ; "Unnamed 2"; same as UM1992-40-Te:AgNiPd	c
<b>UM2005--//Te:Bi</b>	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	Bi <sub>3</sub> Te; no analytical data	b
<b>UM2005--//Te:BiSe</b>	N. Jb. Mineral. Abh. 181, 293		Bi <sub>2</sub> (Te,Se); not distinct from UM1980-16-Te:Bi on the basis of available data	c
<b>UM2005--//Te:CuPd</b>	Can. Mineral. 43, 1355		(Pd,Cu) <sub>2</sub> Te <sub>3</sub> ; "Unnamed 1" same as UM1992-41-Te:CuPd	c
<b>UM2005--//Te:NiPd</b>	Can. Mineral. 43, 1355		PdNiTe <sub>3</sub> ; "Unnamed 3"; no data	b
<b>UM2005--//Te:PdRh</b>	Can. Mineral. 43, 1711		(Pd,Rh) <sub>3</sub> Te <sub>2</sub> ; same as UM2004-49-Te:PdRh; see also UM1961-11-Te:BiPd	c,b
<b>UM2006--//AsO:CuH</b>	J. Czech Geol. Soc. 51 (1-2), 159		Cu <sub>13</sub> (AsO <sub>4</sub> ) <sub>6</sub> (AsO <sub>3</sub> OH) <sub>4</sub> •23H <sub>2</sub> O; "UNK2"; same as UM1997-13-AsO:CuH	c
<b>UM2006--//Bi:Pd</b>	Mineral. Mag. 70, 83		Pd <sub>3</sub> Bi <sub>2</sub> ; no data other than formula	b
<b>UM2006--//Bi:BiPdSbTe</b>	Mineral. Mag. 70, 83		Pd <sub>5</sub> Bi <sub>3</sub> (Te,Sb) <sub>2</sub> ; no data; appears to be the same as UM1976-08-Bi:BiPdSbTe	b,c
<b>UM2006--//Cl:BiHOPd</b>	Mineral. Petrol. 86, 31		(Bi,Pd) <sub>9</sub> (Cl,OH) <sub>5</sub> •6H <sub>2</sub> O; low totals; hence indistinguishable from UM1993-03-Cl:BiHOPd	b
<b>UM2006--//Cl:BiPd</b>	Mineral. Petrol. 86, 109		Low analytical totals; indistinguishable from UM1981-03-Cl:BiPd	c
<b>UM2006--//CO:CaCrH</b>	Austral. J. Mineral. 12, 9		Perhaps Ca-Cr analogue of dundasite; lacks any analytical data	b
<b>UM2006--//E:AgPt</b>	Mineral. Mag. 70, 83		PtAg <sub>2</sub> ; no data other than formula	b
<b>UM2006--//E:IrMoOsW</b>	Am. Mineral. 91, 191		(Os,Ir,W,Mo); probably a substituted osmium	c
<b>UM2006--//E:IrOsW</b>	Am. Mineral. 91, 191		Os <sub>0.68</sub> W <sub>0.15</sub> Ir <sub>0.12</sub> Fe <sub>0.02</sub> Mo <sub>0.02</sub> Ru <sub>0.01</sub> ; appears to be a W,Ir-substituted variety of osmium	c
<b>UM2006--//E:PdTi</b>	Mineral. Mag. 70, 83		Pd <sub>3</sub> Ti; no data other than formula; unlike any other known mineral	b
<b>UM2006--//E:Re</b>	Dokl. Earth Sci. 407A, 460		Probably native rhenium but inadequate data	b
<b>UM2006--//Ge:Pd</b>	Mineral. Mag. 70, 83		(Pd,Pt) <sub>2</sub> Ge; appears to a Pt-bearing variety of UM2005-05-Ge:Pd	c
<b>UM2006--//O:CaNbTi</b>	New Data on Minerals, 41, 56		Ca,Ti-niobate; inadequate data; extremely low analytical total	a
<b>UM2006--//O:HPbU</b>	J. Czech Geol. Soc. 51 (1-2), 159		Pb(UO <sub>2</sub> ) <sub>3</sub> O <sub>3</sub> (OH) <sub>2</sub> •3H <sub>2</sub> O; "UNK5"; appears to be same as UM1997-35-O:HPbU and similar to masuyite	c
<b>UM2006--//O:KRe</b>	Dokl. Earth Sci. 407A, 460		Perhaps KReO <sub>4</sub> , potassium perrhenate; inadequate data	b
<b>UM2006--//O:Re</b>	Dokl. Earth Sci. 407A, 460		Perhaps Re <sub>2</sub> O <sub>7</sub> ; inadequate data	b
<b>UM2006--//OH:AlCl</b>	Dokl. Earth Sci. 407A, 460		Perhaps Al(OH,Cl) <sub>3</sub> ; inadequate data	b
<b>UM2006--//PO:AlCaFH</b>	J. Czech Geol. Soc. 51 (1-2), 159		CaAl <sub>3</sub> (PO <sub>4</sub> )(PO <sub>3</sub> OH)(OH,F) <sub>6</sub> ; "UNK4"; indistinguishable from crandallite	c
<b>UM2006--//PO:AlFeHZn</b>	J. Czech Geol. Soc. 51 (1-2), 159		Zn(Fe,Zn,Al) <sub>4</sub> (PO <sub>4</sub> ) <sub>3</sub> (OH) <sub>4</sub> ; "UNK3"; later described under the name plimerite. Mineral. Mag. 73 (2009), 131	a
<b>UM2006--//PO:AsCuFeH</b>	J. Czech Geol. Soc. 51 (1-2), 159		CuFe <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> (OH) <sub>2</sub> •4H <sub>2</sub> O; "UNK6" subsequently described under the name kunatite: Austral. J. Mineral. 14 (1) (2008), 3	a
<b>UM2006--//PO:FeHMn</b>	J. Czech Geol. Soc. 51 (1-2), 159		(Mn <sup>2+</sup> ,Fe <sup>2+</sup> ) <sub>2</sub> (Fe <sup>3+</sup> ,Al) <sub>3</sub> (PO <sub>4</sub> ) <sub>3</sub> (OH) <sub>4</sub> •H <sub>2</sub> O; same as UM1982-08-PO:FeHMn	c
<b>UM2006--//S:BiPbSe</b>	Mineral. Mag. 70, 123		A Pb-Bi-Se-S mineral; no other data provided	b
<b>UM2006--//S:CuFeGeZn</b>	Can. Mineral. 44, 1481		Cu <sub>2</sub> (Zn,Fe)GeS <sub>4</sub> ; appears to be the same as UM1965-10-S:CuFeGeZn	c
<b>UM2006--//Sb:BiPdTe</b>	Mineral. Mag. 70, 83		Pd <sub>2</sub> (Sb,Bi,Te); no data other than formula; could be Bi- and Te-bearing naldrettite	b,c
<b>UM2006--//Sb:Pd</b>	Mineral. Mag. 70, 83		Pd <sub>5</sub> Sb <sub>3</sub> ; no data other than formula; close to naldrettite	b
<b>UM2006--//Sb:Pt</b>	Mineral. Mag. 70, 83		PtSbSb; no data other than formula which is likely in error	b
<b>UM2006--//SiO:BaCaTh</b>	New Data on Minerals, 41, 56		Ba,Ca,Th-silicate; table 3, #13; inadequate data	a
<b>UM2006--//SiO:CaNbPTI</b>	New Data on Minerals, 41, 56		Ca,Nb,Ti-silicate; table 1, #6-8; inadequate data; said to be Ca-analogue of murmanite	a
<b>UM2006--//SiO:CaTh</b>	New Data on Minerals, 41, 56		Ca,Th-silicate; table 3, #14; inadequate data; amorphous	a
<b>UM2006--//SiO:CaThTi</b>	New Data on Minerals, 41, 56		Ca,Th,Ti-silicate; table 3, #12; inadequate data; amorphous	a
<b>UM2006--//Sn:PdSb</b>	Mineral. Mag. 70, 83		Pd <sub>2</sub> (Sn,Sb); no data; appears to be the same as UM1976-27-Sn:PdSb	b,c
<b>UM2006--//Te:PbPd</b>	Mineral. Mag. 70, 83		PdTe <sub>3</sub> Pb <sub>3</sub> ; no data other than formula	b
<b>UM2007--//As:CuRh</b>	Acta Petrol. Mineral. 26, 418		(Rh,Cu) <sub>7</sub> As <sub>4</sub> ; Table 5, sample 67-17; probably Cu-rich polkanovite	c

UM2007-//As:FeOsRu	Can. Mineral. 45, 631	"Ru <sub>3</sub> As <sub>2</sub> "; very low analytical total makes suggested formula suspect; perhaps an Os-rich ruthenarsenite	b
UM2007-//As:IrPt	Acta Petrol. Mineral. 26, 418	(Pt,Ir) <sub>2</sub> As <sub>3</sub> ; probably same as UM1991-03-As:PtRhS; Table 7, sample 71-9-1	c
UM2007-//As:NiRh	Acta Petrol. Mineral. 26, 418	(Rh,Ni) <sub>2</sub> As <sub>7</sub> ; Table 5, sample 65-2-5; probably Ni-rich polkanovite	c
UM2007-//As:PdRh[1]	Acta Petrol. Mineral. 26, 418	(Pd,Rh) <sub>2</sub> As <sub>7</sub> ; Table 5, sample 71-9-3; appears to be pallododymite	c
UM2007-//As:PdRh[2]	Acta Petrol. Mineral. 26, 418	(Rh,Pd) <sub>2</sub> As <sub>7</sub> ; Table 5, sample 108-2-3; appears to be rhodarsenide	c
UM2007-//As:Ir	Acta Petrol. Mineral. 26, 418	Ir(S,As) <sub>2</sub> ; Table 8, samples 98-35 to 30-10; probably compositional variants of irarsite	c
UM2007-//As:IrRh	Acta Petrol. Mineral. 26, 418	(Rh,Ir)AsS; Table 8, samples 76-12-2--24, 65-2-5-7 & 67-17-11 probably compositional variants of hollingworthite	c
UM2007-//AsTe:Ru	Can. Mineral. 45, 751	(Ru <sub>0.89</sub> Rh <sub>0.05</sub> Os <sub>0.04</sub> )As(Te <sub>0.85</sub> As <sub>0.12</sub> Sb <sub>0.01</sub> ); indistinguishable from UM1981-01-AsTe:Ru	c
UM2007-//Bi:Pt	Contr. Mineral. Petrol. 154, 171	PdPtBi; no analytical data	b
UM2007-//Bi:PtSb	Neues. Jb. Mineral. Abh. 183, 173	(Pt,Pd)(Bi,Sb); Table 4 anal. 49; not distinct from UM1974-02-Bi:AsPdPtSb	c
UM2007-//Bi:PtSb	Contr. Mineral. Petrol. 154, 171	Pd(Bi,Sb); no analytical data; could be Sb-rich sobolevskite or equivalent to UM1976-08-Bi:PtSbTe	b
UM2007-//COPO:CaKNaS	Mineral. Mag. 71, 483	Possibly new unnamed carbonate-phosphate(s) but data are inadequate and analytical totals extremely low; Table 4	a
UM2007-//E:CuPt	Neues. Jb. Mineral. Abh. 183, 173	Cu <sub>3</sub> Pt; appears to be the same as UM1992-11-E:CuPtSb	c
UM2007-//E:FeIrNiPt	Can. Mineral. 45, 631	(Fe,Ni) <sub>3</sub> (Pt,Ir); Table 4, anal. 98c211 <i>et seq.</i> appears to be same as UM1984-18-E:FeNiPt	c
UM2007-//E:FeNi	Can. Mineral. 45, 631	Ni <sub>2-3</sub> Fe; Table 4, anal. 98c 112 & 13; appears to be awaruite	c
UM2007-//O:BiFePdPt	Neues. Jb. Mineral. Abh. 183, 173	Pd,Bi,Pt,Fe,Cu-oxide; inadequate data	b
UM2007-//O:BiFePt	Neues. Jb. Mineral. Abh. 183, 173	Bi,Pt,Fe,Cu-oxide; inadequate data	b
UM2007-//O:FeIrOsRu	Can. Mineral. 45, 631	"PGE oxides"; variable compositions, no oxygen determination and many poor analytical totals; some, at least, equivalent to UM1997-33-O:FeHglrOsRu	b,c
UM2007-//S:Ag	Contr. Mineral. Petrol. 154, 171	Ag <sub>4</sub> S; distinct formula but no analytical data	b
UM2007-//S:AgBiCuFePbSe	Izv. Akad. Nauk Kaz., Ser. Geol. (2007) (1), 17	Fe <sub>3</sub> CuBi(Ag,Pb)(S,Se) <sub>3</sub> ; very low total; appears to be the same as UM1989-15-S:AgBiCuFePbSe	c
UM2007-//S:AgBiCuPb	Izv. Akad. Nauk Kaz., Ser. Geol. (2007) (1), 17	(Cu,Pb,BiAg)S; compositionally indistinguishable from berryite	c
UM2007-//S:AgPd	Dokl. Earth Sci. 414, 511	(Pd,Ag) <sub>4</sub> S; no analytical data; perhaps a Ag-rich variety of UM1992-28-S:Pt	b,c
UM2007-//S:BiCuPt	Contr. Mineral. Petrol. 154, 171	PtCuBiS <sub>3</sub> ; formula distinct, but no data	b
UM2007-//S:CuFeIrNiOsRu	Can. Mineral. 45, 631	"Partially desulfurized laurite"; variable compositions and very poor analytical totals	b
UM2007-//S:CuFeIrNiPtRh	Acta Petrol. Mineral. 26, 418	(Ir,Cu,Ni,Pt,Rh,Fe)S; Table 1, anal. 3; same as UM1990-38-S:CuFeIrNiPtRh	c
UM2007-//S:CuIr	Acta Petrol. Mineral. 26, 418	(Ir,Cu) <sub>2</sub> S <sub>3</sub> ; Table 9, sample 36-15; probably same as UM1976-15-S:CuIrRh	c
UM2007-//S:CuIrRhPt	Contr. Mineral. Petrol. 154, 171	(Pt,Cu,Rh,Ir) <sub>2</sub> S <sub>3</sub> ; no analytical data	b
UM2007-//S:FeK	Mineral. Mag. 71, 483	K <sub>1-2</sub> Fe <sub>2-3</sub> S <sub>3-4</sub> ; same as UM1997-44-S:FeK	c
UM2007-//S:FeNi	Can. Mineral. 45, 631	(Fe,Ni)S; appears to be the same as UM1989-25-S:FeNi	c
UM2007-//S:IrRh	Can. Mineral. 45, 355	Rh-Ir-S mineral "Un#2"; no other data provided	b
UM2007-//S:NiRh	Can. Mineral. 45, 355	Rh-Ni-S mineral "Un#1"; no other data provided	b
UM2007-//S:PtRhSb	Neues. Jb. Mineral. Abh. 183, 173	(Rh,Pt)SbS; appears to be the same as UM1976-16-S:IrRhSb	c
UM2007-//S:Rh	Acta Petrol. Mineral. 26, 418	RhS; Table 9 sample 76-12-2; same as UM2002-27-S:Rh; note Rh value omitted from table assumed by difference;	c
UM2007-//SO:CCuHZn	J. Mineral. Petrol. Sci. 102, 233	(Zn,Cu) <sub>7</sub> (SO <sub>4</sub> ,CO <sub>3</sub> ) <sub>2</sub> (OH) <sub>10</sub> •3H <sub>2</sub> O; appears to be identical to UM1992-30-SO:CCuHZn	c
UM2007-//Sb:BiPd	Mineral. Petrol. 89, 159	Pd(Sb,Bi); appears not to be distinct from UM1961-08-Sb:BiPd	c
UM2007-//Sb:BiPdPt	Neues. Jb. Mineral. Abh. 183, 173	(Pt,Pd)(Sb,Bi); Table 4 anal. 211; probably a Pd-rich stümpflite	c
UM2007-//Sb:CuPd	Neues. Jb. Mineral. Abh. 183, 173	Pd <sub>2</sub> CuSb; same as UM1961-09-Sb:CuPd	c
UM2007-//Sb:Pd[1]	Mineral. Petrol. 89, 159	PdSb; appears not to be distinct from sudburyite	c
UM2007-//Sb:Pd[2]	Mineral. Petrol. 89, 159	Pd <sub>4</sub> Sb <sub>3</sub> ; not distinct from ungavaite	c
UM2007-//Se:Bi	Can. Mineral. 45, 665	Bi <sub>4</sub> Se <sub>3</sub> ; same as UM1992-//Se:BiCu	c
UM2007-//SiO:AlBaCaHKNaNbREETHi	New Data on Minerals 42, 33	(K,Ca,Th,Na,Ba,REE) <sub>3.5</sub> (Ti,Nb) <sub>3</sub> (Si,Al) <sub>8</sub> (O,OH) <sub>50</sub> nH <sub>2</sub> O; inadequate data with low total; perhaps related to vudavavrite	b
UM2007-//Te:AgAsAuPbTe	Mineral. Petrol. 91, 249	Au <sub>3</sub> (Ag,Pb)As <sub>2</sub> Te <sub>3</sub> ; appears to be identical to UM1989-02-AsTe:AgAuPb	c
UM2007-//Te:AsPd	Dokl. Earth Sci. 414, 511	Pd <sub>3</sub> (Te,As); not distinct from UM1991-26-Te:AsPd	c
UM2007-//Te:AsRu	Can. Mineral. 45, 751	RuAsTe; Table 4, anal. 6; clearly the same as UM1981-01-AsTe:Ru	c
UM2007-//Te:Bi[1]	Can. Mineral. 45, 665	Bi <sub>2</sub> Te <sub>5</sub> ; appears not to be distinct from UM1968-05-Te:Bi	c
UM2007-//Te:Bi[2]	Can. Mineral. 45, 665	Bi <sub>2</sub> Te; appears not to be distinct from UM1980-16-Te:Bi	c
UM2007-//Te:Bi[3]	Can. Mineral. 45, 665	Bi <sub>3</sub> Te <sub>2</sub> ; appears not to be distinct from UM1983-29-Te:BiSSe	c
UM2007-//Te:BiSSe[1]	Can. Mineral. 45, 665	Bi <sub>3</sub> Te <sub>2</sub> (Se,S) <sub>2</sub> ; appears to be the same as UM1995-45-Te:BiSSe	c
UM2007-//Te:BiSSe[2]	Can. Mineral. 45, 665	Bi <sub>3</sub> Te(S,Se); appears not to be distinct from protojoseite	c
UM2007-//Te:BiSe	Can. Mineral. 45, 665	Bi <sub>4</sub> Te <sub>2</sub> Se; same as UM2001-24-Te:BiSe	c
UM2008-//As:FeIrNiS	Mineral. Petrol. 92, 31	(Ir,Fe,Ni) <sub>3</sub> (As,S) <sub>2</sub> ; Table 8, #9; same as UM1997-01-As:FeIrNiS	c

UM2008--As:IrNi[1]	Mineral. Petrol. 92, 31	(Ni,Ir) <sub>5</sub> As <sub>2</sub> ; Table 8, #5; appears to be orcelite	c
UM2008--As:IrNi[2]	Mineral. Petrol. 92, 31	(Ni,Ir) <sub>7</sub> As <sub>3</sub> ; Table 8, #4; compositional variant of UM1973-01-As:NiPd	c
UM2008--As:IrNiOsRu	Mineral. Petrol. 92, 31	(Ru,Ni,Os,Ir)As; Table 8, #3; probably compositional variant of ruthenarsenide	c
UM2008--As:IrOs	Mineral. Petrol. 92, 31	(Ir,Os) <sub>2</sub> As; Table 8, #7; same as UM1997-02-As:IrOs	c
UM2008--As:NiPd	Mineral. Petrol. 92, 283	Pd <sub>3</sub> Ni <sub>2</sub> As <sub>3</sub> ; p.296, para. 3, line 3; not distinct from menshikovite	c
UM2008--As:NiRh	Mineral. Petrol. 92, 31	RhNiAs; Table 8, #1; same as 1983-03-As:NiRh	c
UM2008--As:OsRu	Mineral. Petrol. 92, 31	(Os,Ru)As <sub>2</sub> ; Table 8, #2; poor total; appears to be omeiite	c
UM2008--As:PdSbSn	Mineral. Petrol. 92, 283	Pd <sub>11</sub> As <sub>2</sub> (Sb,Sn) <sub>2</sub> ; Table 5, anal. 29; not distinct from isomertieite	c
UM2008--As:PdSn	Mineral. Petrol. 92, 283	Pd <sub>3</sub> (As,Sn); Table 5, anal. 25 & 27; not distinct from stillwaterite or arsenopalladinite	c
UM2008--As:O:FeHPbZn	Can. Mineral. 46, 1355	Pb(Zn <sub>0.5</sub> Co <sub>0.5</sub> )Fe <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> (OH) <sub>6</sub> ; subsequently described under the name kolitschite; Austral. J. Mineral. 14 (2), 63	a
UM2008--AsS:IrOs	Mineral. Petrol. 92, 31	(Ir,Os)AsS; Table 8, #14, 15 & 19-21; appears to be irarsite	c
UM2008--AsS:OsRu	Mineral. Petrol. 92, 31	(Ru,Os)AsS; Table 8, #10 & 11; appears to be ruarsite	c
UM2008--Bi:AgAu	Dokl. Earth Sci. 421A, 919	(Au,Ag) <sub>2</sub> Bi; could be equated with Ag-bearing maldonite	c
UM2008--Bi:PdSbTe	Mineral. Petrol. 92, 129	Pd(Bi,Te,Sb); Table 4, 1st, 2nd, 3rd, 5th, 6th & 9th; appear to be same as UM1976-08-Bi:PdSbTe	c
UM2008--Bi:PdTe	Mineral. Petrol. 92, 283	Pd <sub>3</sub> (Bi,Te); Table 5, anal. 26; appears to be Te-rich variety of UM2004-05-Bi:Pd	c
UM2008--BiSb:Pd	Mineral. Petrol. 92, 129	Pd(Bi,Sb); Table 4, 4th & 7th; appears to be same as UM2002-01-BiSb:Pd	c
UM2008--Cl:Rh[1]	Dokl. Earth Sci. 421A, 919	RhCl <sub>2</sub>	b
UM2008--Cl:Rh[2]	Dokl. Earth Sci. 421A, 919	RhCl <sub>4</sub>	b
UM2008--CO:CaSr	Can. Mineral. 46, 753	(Sr <sub>0.5</sub> Ca <sub>0.5</sub> )CO <sub>3</sub> ; same as UM1989-07-CO:CaSr	c
UM2008--COPO:CaKNaS[1]	Mineral. Mag. 71, 483	High-P, CO <sub>2</sub> assumed and probably hydrous; likely a new mineral but inadequate data and no formula	b
UM2008--COPO:CaKNaS[2]	Mineral. Mag. 71, 483	Low-P, CO <sub>2</sub> assumed and probably hydrous; likely a new mineral but inadequate data and no formula	b
UM2008--E:AgW[1]	Dokl. Earth Sci. 421A, 919	AgW; no data	b
UM2008--E:AgW[2]	Dokl. Earth Sci. 421A, 919	Ag <sub>2</sub> W; no data	b
UM2008--E:AgW[3]	Dokl. Earth Sci. 421A, 919	AgW <sub>2</sub> ; no data	b
UM2008--E:AuCu	Dokl. Earth Sci. 421A, 919	Cu <sub>2</sub> Au; no data	b
UM2008--E:AuCuFeNiPt	Can. Mineral. 46, 329	Pt(Fe,Cu,Ni,Au); Table 3, anal. 32; appears to be a Cu-Au-bearing tetraferroplatinum	c
UM2008--E:AuFeNiPt	Can. Mineral. 46, 329	(Fe,Ni,Au)Pt <sub>2</sub> ; Table 3, anal. 33; appears to be a Ni-Au-bearing variant of UM1996-13-E:FePt	c
UM2008--E:AuPd	Neues Jh. Mineral. Abh. 184, 329	Au <sub>2</sub> Pd; appears to be the same as UM2000-04-E:AuCuPd	c
UM2008--E:BiPdPt	Dokl. Earth Sci. 421A, 919	(Pt,Bi) <sub>2</sub> Pd; not distinct from UKI-1995-(E:AuPdPt)	c
UM2008--E:CuFeNiPt	Can. Mineral. 46, 329	(Ni,Fe,Cu) <sub>3</sub> Pt; Table 3, anal. 33; a compositional variant of UM1986-12-E:CuFeNiPt	c
UM2008--E:CuFeOsRu	Mineral. Petrol. 92, 31	(Os,Ru)(Cu,Fe); appears to be the same as UM1997-29-E:CuFeOsRu	c
UM2008--E:CuPdPt [1]	Can. Mineral. 46, 329	Cu <sub>3</sub> (Pd,Pt); Table 3, anal. 50; not distinct from nielsenite; Can. Mineral. 46 (2008), 709	c
UM2008--E:CuPdPt [2]	Can. Mineral. 46, 329	Cu <sub>4</sub> (Pd,Pt); Table 3, anal. 36; not distinct from UM2004-12-E:CuPdPt	c
UM2008--E:CuSn	Dokl. Earth Sci. 421A, 923	Cu <sub>6</sub> Sn <sub>5</sub> ; termed "η-bronze"; same as UM1965-06-E:CuSn	c
UM2008--E:FeNiPd	Can. Mineral. 46, 329	(Ni,Fe) <sub>3</sub> Pd; Table 3, anal. 21; appears to be a compositional variant of UM1986-12-E:CuFeNiPd	c
UM2008--E:FePt	Mineral. Deposita 43, 791	Pt <sub>2</sub> Fe; appears to be same as UM1996-13-E:FePt	c
UM2008--E:IrMoOsW[1]	Am. Mineral. 93, 1574	(Os,Ir,W,Mo); same as UM2006--E:IrMoOsW; probably a substituted osmium	c
UM2008--E:IrMoOsW[2]	Am. Mineral. 93, 1574	(Ir,Os,W,Mo); probably a substituted iridium	c
UM2008--E:MoRuTi	Dokl. Earth Sci. 421A, 919	(Mo,Ru)Ti; no data	b
UM2008--E:NiPb	Mineral. Petrol. 92, 31	PbNi; p.41, BM alloys; no analytical data	b
UM2008--F:KMg	Can. Mineral. 46, 843	KMgF <sub>3</sub> ; the K-analogue of neighborite; same as UM1960-02-F:KMg	c
UM2008--O:BiPdSb	Mineral. Petrol. 92, 283	Pd <sub>1-2</sub> (Sb,Bi)O <sub>1-2</sub> ; p.299, line 8; corresponds to UM2000-28-O:BiPdSb	c
UM2008--O:CaMnREETi	Dokl. Earth Sci. 421A, 923	"Phase A"; perhaps (REE,Mn,Ca) <sub>5</sub> Ti <sub>5</sub> O <sub>16</sub> ; only qualitative analytical data	b
UM2008--O:CaMnREETiZr[1]	Dokl. Earth Sci. 421A, 923	"Phase B"; perhaps (Mn,Ca,Zr,REE) <sub>5</sub> Ti <sub>5</sub> O <sub>16.5</sub> ; only qualitative analytical data	b
UM2008--O:CaMnREETiZr[2]	Dokl. Earth Sci. 421A, 923	"Phase C"; perhaps (Ca,Mn,Zr,REE) <sub>4.5</sub> Ti <sub>5.5</sub> O <sub>16</sub> ; only qualitative analytical data	b
UM2008--O:ClNaSSb	Dokl. Earth Sci. 421A, 923	Perhaps Na <sub>9</sub> (Sb <sub>2</sub> O <sub>3</sub> ) <sub>9</sub> (SbS <sub>3</sub> ) <sub>5</sub> O <sub>1.5</sub> Cl; only qualitative analytical data	b
UM2008--O:FeHMgPdSi	Can. Mineral. 46, 329	(Fe,Si,Mg,Pd) <sub>2</sub> O <sub>3</sub> ·nH <sub>2</sub> O; inadequate data; low analytical total (perhaps due to H <sub>2</sub> O)	b
UM2008--O:PdSb	Mineral. Petrol. 92, 283	Pd <sub>5</sub> Sb <sub>2</sub> O <sub>4</sub> ; p.299, line 3; corresponds to UM2000-40-O:PdSb	c
UM2008--S:AgBiFeTe	Chinese Science Bulletin (2008), 1	Ag <sub>16</sub> FeBiTe <sub>3</sub> S <sub>8</sub> ; same as UM2003-14-S:AgBiFeTe	c
UM2008--S:AgBiPb[1]	Neues Jh. Mineral. Abh. 185, 199	PbAgBiS <sub>3</sub> ; same as UM1987-06	c
UM2008--S:AgBiPb[2]	Neues Jh. Mineral. Abh. 185, 199	Pb <sub>3</sub> Ag <sub>2</sub> Bi <sub>2</sub> S <sub>7</sub> ; same as UM1987-07	c
UM2008--S:AgBiPbSb	Austral. J. Mineral. 14, 19	Table 5; probably not distinct from treasureite	c
UM2008--S:AgHg[1]	Dokl. Earth Sci. 421A, 919	Ag <sub>10</sub> Hg <sub>3</sub> S <sub>8</sub> ; no data	b
UM2008--S:AgHg[2]	Dokl. Earth Sci. 421A, 919	Ag <sub>7</sub> Hg <sub>3</sub> S <sub>4</sub> ; no data	b
UM2008--S:AgTe	Chinese Science Bulletin (2008), 1	Ag <sub>6</sub> TeS <sub>2</sub> ; same as UM2003-17-S:AgTe	c
UM2008--S:AsCuFeI	Mineral. Petrol. 92, 31	(Ir,Cu,Fe,Ni) <sub>2</sub> (S,As) <sub>3</sub> ; p.43, para. 2; compositional variant of UM1997-38-S:AsIrOs	c

<b>UM2008--/S:AsFeIrOs</b>	Mineral. Petrol. 92, 31	(Ir,Os,Fe) <sub>2</sub> (S,As) <sub>3</sub> ; p.43, para. 2; same as UM1997-38-S:AsIrOs	c
<b>UM2008--/S:CuFe</b>	Can. Mineral. 46, 545	Cu <sub>2</sub> Fe <sub>3</sub> S <sub>5</sub> ; Table 7; appears to be the same as UM1986-42-S:CuFe	c
<b>UM2008--/S:CuFeNi</b>	Can. Mineral. 46, 233	Cu <sub>2</sub> (Fe,Ni) <sub>7</sub> S <sub>8</sub> ; mineral "Z"; identical to UM1998-14-S:CuFeNi	c
<b>UM2008--/S:Culr</b>	Mineral. Petrol. 92, 31	Ir <sub>2</sub> CuS <sub>4</sub> ; Table 6, #1; appears to be cuproiridsite	c
<b>UM2008--/S:CulrNi[1]</b>	Mineral. Petrol. 92, 31	(Ir,Cu,Rh,Ni) <sub>3</sub> S <sub>4</sub> ; Table 6, #3; probably xingzhongite	c
<b>UM2008--/S:CulrNi[2]</b>	Mineral. Petrol. 92, 31	(Ir,Rh)(Ni,Fe,Cu) <sub>2</sub> S <sub>3</sub> ; Table 6, #5, 6 & 8; probably same as UM1974-11-S:CuFeIrNi	c
<b>UM2008--/S:Fe,Ni</b>	Can. Mineral. 46, 233	(Fe,Ni,Co,Cu) <sub>3</sub> S <sub>8</sub> ; mineral "X"; identical to UM1998-16-S:FeNi	c
<b>UM2008--/S:IrOs</b>	Mineral. Petrol. 92, 31	(Ir,Os) <sub>2</sub> S <sub>3</sub> ; Table 6, #2; a compositional variant of UM1990-42-S:IrOsPbPt	c
<b>UM2008--/S:IrRh</b>	Mineral. Petrol. 92, 31	(Ir,Rh) <sub>2</sub> S <sub>2</sub> ; p.42, line 3; a compositional variant of UM1974-13-S:IrRh	c
<b>UM2008--/SO:CaHNa</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Ca <sub>1.66</sub> Na <sub>0.66</sub> (SO <sub>4</sub> ) <sub>2</sub> ·H <sub>2</sub> O; "mineral SA"; later named omongwaite; Mineral. Mag. 72 (2008), 1209	a
<b>UM2008--/Sb:AsPd</b>	Mineral. Petrol. 92, 283	Pd <sub>8</sub> (Sb,As) <sub>3</sub> ; Table 5, anal. 28; not distinct from mertieite-II	c
<b>UM2008--/Sb:BiPd</b>	Mineral. Petrol. 92, 129	Pd(Sb,Bi); Table 4, 10th; appears to be a Bi-rich sudburyite or perhaps Bi-rich UM1974-15-Sb:Pd	c
<b>UM2008--/Se:PtPd</b>	Dokl. Earth Sci. 423A, 1400	(Pd,Pt) <sub>3</sub> Se <sub>2</sub> ; appears to be a Pt-bearing variety of UM1995-39-Se:Pt	c
<b>UM2008--/Sn:Pt</b>	Dokl. Earth Sci. 423A, 1400	PdSn <sub>2</sub> ; appears to be identical to UM1995-44-Sn:Pt	c
<b>UM2008--/Te:BiFeS</b>	J. Geosci. 53, 1	(Bi,Fe) <sub>5</sub> (Te,S) <sub>3</sub> ; probably not distinct from UM1982-26-Te:BiSSe	c
<b>UM2008--/Te:BiS</b>	J. Geosci. 53, 1	Bi <sub>2</sub> (Te,S); not distinct from UM1980-16-Te:Bi	c
<b>UM2008--/?[1]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "EA"; no composition, only some X-ray powder data	b
<b>UM2008--/?[2]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "EB"; no composition, only some X-ray powder data	b
<b>UM2008--/?[3]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "EH"; no composition, only some X-ray powder data	b
<b>UM2008--/?[4]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "EI"; no composition, only some X-ray powder data	b
<b>UM2008--/?[5]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HA"; no composition, only some X-ray powder data	b
<b>UM2008--/?[6]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HB"; no composition, only some X-ray powder data	b
<b>UM2008--/?[7]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HC"; no composition, only some X-ray powder data	b
<b>UM2008--/?[8]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HM"; no composition, only some X-ray powder data	b
<b>UM2008--/?[9]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HN"; no composition, only some X-ray powder data	b
<b>UM2008--/?[10]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "HS"; no composition, only some X-ray powder data	b
<b>UM2008--/?[11]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "SB"; no composition, only some X-ray powder data	b
<b>UM2008--/?[12]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "SC"; no composition, only some X-ray powder data	b
<b>UM2008--/?[13]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "SF"; no composition, only some X-ray powder data	b
<b>UM2008--/?[14]</b>	Fjölrit náttúrufræðistofnunar Nr. 52, 1	Mineral "SG"; no composition, only some X-ray powder data	b
<b>UM2009--/As:NiRh</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	RhNiAs; but actual atomic proportions rather variable; close to both UM2007-03-As:NiRh and UM1983-03-As:NiRh	c,b
<b>UM2009--/C:MnSi</b>	Mineral. Mag. 73, 43	Identified only as a manganese silicic carbide; no data presented	b
<b>UM2009--/CN:FeHKZn</b>	Can. Mineral. 47, 525	(Na,K) <sub>2</sub> Zn <sub>3</sub> [Fe(CN) <sub>6</sub> ] <sub>2</sub> ·nH <sub>2</sub> O; of anthropogenic origin; does not meet IMA criteria for definition of a mineral	f
<b>UM2009--/E:FeIrOsRu.</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	Ru,Os,Ir,Fe-alloys; poor data - analytical totals shown are seriously in error; some similarities to UM2007-13-E:FeIrNiOsRu	b
<b>UM2009--/E:FeIrNi[1]</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	Ir(Ni,Fe) <sub>3</sub> ; appears to be the same as UKI-2008-(E:FeIrNi)	c
<b>UM2009--/E:FeIrNi[2]</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	Ir(Ni,Fe) <sub>4</sub> ; appears to be the same as UM2000-15-E:FeIrNi	c
<b>UM2009--/E:FeNiPt</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	Pt(Ni,Fe) <sub>3</sub> ; appears not to be distinct from UM1986-12-E:CuFeNiPt	c
<b>UM2009--/E:AgAuHg</b>	Can. Mineral. 47, 433	(Au,Ag) <sub>3</sub> Hg; may be the Au-dominant analogue of luanheite (Ag <sub>3</sub> Hg); but considered to be of anthropogenic origin and therefore not a mineral	f
<b>UM2009--/O:FeIrOsRu[1]</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	(Ru,Os,Ir,Fe) <sub>2</sub> O; Table 1 - var. analyses; probably same as UM1999-15-O:IrOsRu	c
<b>UM2009--/O:FeIrOsRu[2]</b>	Neues. Jb. Mineral. Abh. 185 (3), 335	(Ru,Os,Ir,Fe) <sub>2</sub> O <sub>3</sub> ; Table 1 - var. analyses; probably same as UM1997-34-O:FeIrOsRu	c
<b>UM2009--/P:MnSi</b>	Mineral. Mag. 73, 43	Identified only as a manganese silicic phosphide; no data presented	b
<b>UM2009--/PO:HZr</b>	Mineral. Mag. 73, 415	Zr(PO <sub>3</sub> OH) <sub>2</sub> (H <sub>2</sub> O) <sub>4</sub> ; formula but no data presented	b
<b>UM2009--/SO:CaHZr</b>	Mineral. Mag. 73, 251	Ba <sub>2</sub> F <sub>2</sub> (S <sup>6+</sup> OsS <sup>2-</sup> ); a thiosulphate produced by the weathering of man-made material; does not meet the requirements for a mineral	f
<b>UM2009--/SO:FeNa</b>	Mineral. Mag. 73, 51	Na <sub>3</sub> Fe(SO <sub>4</sub> ) <sub>3</sub> ; no data - only formula	b
<b>UM2009--/Te:BiPbPd</b>	Can. Mineral. 47, 53	Pd(Pb,Te,Bi); apparently the same as UM1972-17-Te:BiPbPd	c





































































