NEW MINERALS APPROVED IN 2010
NOMENCLATURE MODIFICATIONS APPROVED IN 2010
BY THE
COMMISSION ON NEW MINERALS, NOMENCLATURE AND CLASSIFICATION
INTERNATIONAL MINERALOGICAL ASSOCIATION

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The information given here is provided by the IMA Commission on New Minerals, Nomenclature and Classification for comparative purposes and as a service to mineralogists working on new species.

Each mineral is described in the following format:

Mineral name, if the authors agree on its release prior to the full description appearing in press
Chemical formula
Type locality
Full authorship of proposal
E-mail address of corresponding author
Relationship to other minerals
Crystal system, Space group; Structure determined, yes or no
Unit-cell parameters
Strongest lines in the X-ray powder-diffraction pattern
Type specimen repository and specimen number
Citation details for the mineral prior to publication of full description

It is still a requirement for the authors to publish a full description of the new mineral.

NO OTHER INFORMATION WILL BE RELEASED BY THE COMMISSION
NEW MINERAL PROPOSALS APPROVED IN NOVEMBER 2010

IMA No. 2010-044
Titanium

Ti
Orebody 31, Luobusa mining district, in Qusong County, Tibet (29°5'N 92°5'E)
Fang Qing-Song, Shi Ni-Cheng, Li Guo-Wu*, Bai Wen-Ji, Yang Jing-Sui, Xiong Ming, Rong He and Ma Zhe-Sheng

*E-mail: liguowu@126.com

Known structure type
Hexagonal: \(P\overline{6}_3/mmc\)
\(a = 2.950(2), c = 4.686(1) \text{ Å}\)
2.569(32), 2.254(100), 1.730(16), 1.478(21), 0.989(5), 0.9464(8), 0.9172(4), 0.8214(4)
Type material is deposited in the collections of the Institute of Geology, Chinese Academy of Geological Sciences, Beijing, P. Republic of China catalogue number 74-3


IMA No. 2010-046
Běhounekite

\(\text{U(SO}_4\text{)}_2(\text{H}_2\text{O})_4\)
Geschieber vein, Jáchymov, Czech Republic
Jakub Plášil*, Karla Fejfarová, Milan Novák, Michal Dušek, Jiří Sejkora, Radek Škoda, Jan Hloušek and Juraj Majzlan

*E-mail: jakub_plasil@nm.cz

Known structure type
Orthorhombic: \(Pnma\); structure determined
\(a = 14.6464(3), b = 11.0786(3), c = 5.6910(1) \text{ Å}\)
7.330(100), 6.112(54), 5.538(21), 4.787(42), 3.663(17), 3.478(20), 3.080(41), 2.495(17)
Type material is deposited in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, catalogue number P1P 2/2010


IMA No. 2010-047
Carlosbarbosaite

\((\text{Ca}_{0.5-0.5})(\text{UO}_2)\text{O}_2(\text{Nb}^{5+}\text{Si})\text{O}_4(\text{OH})\text{O}_2\cdot2\text{H}_2\text{O}\)
Jaguaraçu pegmatite, Jaguaraçu municipality, Minas Gerais, Brazil (19°38'57"S 42°44'59"W)

*E-mail: datencio@usp.br

New structure type
Orthorhombic: \(C\text{mcm}\); structure determined

2
$a = 14.150(6), \ b = 10.395(4), \ c = 7.529(3) \ \text{Å}$

8.405(80), 7.081(100), 4.201(90), 3.333(60), 3.053(80), 2.931(70), 2.803(60),
2.589(50)

Type material is deposited in the collections of the Museu de Geociências, Instituto de Geociências, Universidade de São Paulo, São Paulo, Brazil, registration number DR707


IMA No. 2010-048

Tarbagataite

$\text{(K□)}\text{Ca(Fe}^{2+},\text{Mn})_7\text{Ti}_3\text{(Si}_4\text{O}_{12})_2\text{O}_2\text{(OH)}_3$

Verkhnee Espe deposit, Akjailyautas mountains, Kazakhstan (N 48°03’-48°10’ E 81°26’-81°29’’)

A.V. Stepanov, G.K. Bekenova, V.L. Levin, E. Sokolova*, and F.C. Hawthorn
*E-mail: elena_sokolova@umanitoba.ca

Astrophyllite group

Triclinic: $P \bar{1}$; structure determined

$a = 5.3868(3), \ b = 11.9141(6), \ c = 11.7171(6) \ \text{Å}, \ \alpha = 112.978(2), \ \beta = 94.641(2), \ \gamma = 103.189(2)^\circ$

4.095(80), 3.735(30), 3.497(50), 3.258(100), 2.858(80), 2.761(70), 2.646(30), 2.560(50)

Type material is deposited in in the collections of the Geological Scientific Museum of the Satpaev Institute of Geological Sciences, Almaty, Kazakhstan, registration number 3009/2010


IMA No. 2010-049

Steedeite

$\text{Na}_2\text{ZrSi}_3\text{O}_9\cdot2\text{H}_2\text{O}$

Poudrette Quarry, Mont Saint-Hilaire, Quebec, Canada

Monika M. Haring, Andrew M. McDonald*, Glenn Poirier and Mark A. Cooper
*E-mail: amcdonald@laurentian.ca

Catapleiite group

Trigonal: $P 3 1 c$; structure determined

$a = 7.414(1), \ c = 10.096(2) \ \text{Å}$

6.422(100), 5.414(65), 3.969(73), 3.065(69), 2.990(60), 2.713(41), 1.975(26), 1.856(27)

Type material is deposited in in the collections of the Department of Natural History, Royal Ontario Museum, Toronto, Canada, catalogue number M55371


IMA No. 2010-051
Markascherite
$\text{Cu}_3(\text{MoO}_4)(\text{OH})_4$
Childs Aldwinkle mine, Bunker Hill District, Pinal County, Arizona, USA (32°45'07" N 110°28'55"
Hexiong Yang*, Robert A. Jenkins, Robert T. Downs, Stanley H. Evans and Elias M. Bloch
*E-mail: hyang@u.arizona.edu
Dimorph of szenicite
Monoclinic: $P2_1/m$; structure determined
$a = 5.5203(5), b = 5.9900(5), c = 9.9832(11)$ Å, $\beta = 97.586(2)^\circ$
5.124(65), 4.948(100), 3.450(54), 3.299(51), 3.006(53), 2.736(55), 2.580(88), 2.122(60)
Type material is deposited in in the collections of the University of Arizona Mineral Museum, Tucson, Arizona, USA, catalogue number 19291

IMA No. 2010-052
Rakovanite
$\text{Na}_3\{\text{H}_3[\text{V}_{10}\text{O}_{28}]\}\cdot 15\text{H}_2\text{O}$
Sunday and the West Sunday mines, Slick Rock District, San Miguel County, Colorado, USA
Anthony R. Kampf, John M. Hughes*, Joe Marty, Mickey Gunter and Barbara Nash
*E-mail: jmhughes@uvm.edu
New structure type
Monoclinic: $P2_1/n$; structure determined
$a = 12.0248(17), b = 17.121(3), c = 18.140(3)$ Å, $\beta = 106.242(8)^\circ$
11.270(100), 8.709(78), 7.696(81), 6.892(63), 3.445(24), 2.935(42), 2.798(31), 2.433(24)
Type material is deposited in in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63357 and 63358

NEW MINERAL PROPOSALS APPROVED IN DECEMBER 2010

IMA No. 2010-050
Veblenite
$\text{KNa}(\text{Fe}^{2+}_5\text{Fe}^{3+}_4\text{Mn}_7)\text{Nb}_4(\text{Si}_5\text{O}_7)_2(\text{Si}_4\text{O}_{22})_2\text{O}_6(\text{OH})_{10}(\text{H}_2\text{O})_3$
Ten Mile Lake, Seal Lake area, Labrador, Newfoundland, Canada
Fernando Cámara*, Elena Sokolova, Frank C. Hawthorne, Ralph Rowe, Joel Grice and Kim Tait
*E-mail: fernando.camaraartigas@unito.it
New structure type
Triclinic: $P\overline{1}$; structure determined
$a = 5.3761(3), b = 27.5062(11), c = 18.6972(9)$ Å, $\alpha = 140.301(3), \beta = 93.033(3), \gamma = 95.664(3)^\circ$
The mineral is present in a holotype sample of niobophyllite housed in the collections of the Royal Ontario Museum, Toronto, Canada, catalogue number M26148.


**IMA No. 2010-054**

**Hylbrownite**

MgNa₃P₃O₁₀·12H₂O

Dome Rock mine, 470 km northeast of Adelaide, South Australia, Australia (148°24'E 31°52'S)

Peter Elliott*, Joël Brugger and Tom Caradoc-Davies

*E-mail: peter.elliott@adelaide.edu.au*

Mg analogue of kanonerovite

Monoclinic: P2₁/n; structure determined

a = 14.722(3), b = 9.240(2), c = 15.052(3) Å, β = 90.01(3)°

10.530(60), 7.357(80), 6.949(100), 5.835(30), 4.754(35), 3.934(40), 3.510(45), 3.336(35)

Type material is deposited in in the collections of the South Australian Museum, Adelaide, South Australia, Australia, registration number G33088


**IMA No. 2010-055**

**Rongibbsite**

Pb₂(Si₄Al)O₁₁(OH)

Unnamed prospect, Big Horn Mountains, Maricopa County, Arizona, USA (33°69' N 113°22' W)

Hexiong Yang*, Robert A. Jenkins, Robert T. Downs, Stanley H. Evans, Elias M. Bloch, and Alex J. Halpern

*E-mail: hyang@u.arizona.edu*

New structure type

Monoclinic: C2/m; structure determined

a = 12.6018(10), b = 13.9132(11), c = 7.8356(6) Å, β = 125.463(4)°

6.821(78), 6.075(100), 3.990(99), 3.481(81), 3.478(82), 3.322(76), 2.842(91), 2.753(87)

Type material is deposited in in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 19292


**IMA No. 2010-056**

**Agardite-(Nd)**

NdCu₆(AsO₄)₃(OH)₆·3H₂O

Hilarion Mine, Agios Konstantinos (Kamariza), Lavrion District, Greece

Igor V. Pekov*, Nikita V. Chukanov, Aleksandr E. Zadov, Panagiotis Voudouris, Andreas Magganas and Athanassios Katerinopoulos
E-mail: igorpekov@mail.ru

Mixite group
Hexagonal: $P6_3/m$;
$a = 13.548(8)$, $c = 5.894(6)$ Å
11.70(100), 4.443(22), 3.545(18), 3.255(8), 2.935(18), 2.695(13), 2.559(10),
2.453(30)
Type material is deposited in the collections of the Fersman Mineralogical Museum
of the Russian Academy of Sciences, Moscow, Russia, registration number
4020/1

How to cite: Pekov, I.V., Chukanov, N.V., Zadov, A.E., Voudouris, P., Magganas, A.

IMA No. 2010-057
Panguite
$(\mathrm{Ti,Al,Sc,Mg,Zr,Ca})_{1.8}\mathrm{O}_3$
Allende meteorite
Chi Ma*, Oliver Tschauner, George R. Rossman and Wenjun Liu
E-mail: chi@gps.caltech.edu
New structure type
Orthorhombic: $Pbca$
$a = 9.781(1)$, $b = 9.778(2)$, $c = 9.815(1)$ Å
4.002(6), 3.995(7), 2.827(100), 1.732(18), 1.732(19), 1.729(19), 1.479(8), 1.475(9)
Type material is deposited in the collections of the Smithsonian Institution’s
National Museum of Natural History, Washington DC, USA, catalogue number
7602

How to cite: Ma, C., Tschauner, O., Rossman, G.R. and Liu, W. (2011) Panguite,
IMA 2010-057. CNMNC Newsletter No. 7, February 2011, page 30; Mineralogical Magazine, 75, 27-31

IMA No. 2010-058
Cordylite-(La)
$\mathrm{NaBaLa}_2(\mathrm{CO}_3)_4\mathrm{F}$
Biraya deposit, Vitim Plateau, Irkutsk district, Russia
Stuart J. Mills*, Pavel M. Kartashov, Anthony R. Kampf, Aleksei A. Konev, Anna A.
Koneva and Mati Raudsepp
E-mail: smills@eos.ubc.ca
Isomorphous with cordylite-(Ce)
Hexagonal: $P6_3/mmc$; structure determined
$a = 5.1182(5)$, $c = 23.1785(16)$ Å
4.371(65), 4.148(54), 3.532(100), 3.209(95), 2.562(89), 2.213(52), 2.051(44),
1.921(52)
Type material is deposited in the collections of the Mineral Sciences Department,
Natural History Museum of Los Angeles County, Los Angeles, California, USA,
catalogue number 63360, and the Fersman Mineralogical Museum of the Russian
Academy of Sciences, Moscow, Russia, registration numbers 4028/1 and 4029/1

How to cite: Mills, S.J., Kartashov, P.M., Kampf, A.R., Konev, A.A., Koneva, A.A.
No. 7, February 2011, page 30; Mineralogical Magazine, 75, 27-31
IMA No. 2010-061
Ferrisepiolite
\((\text{Fe}^{3+},\text{Fe}^{2+},\text{Mg})_4[(\text{Si},\text{Fe}^{3+})_6\text{O}_{15}](\text{O,OH})_2\cdot 6\text{H}_2\text{O}\)
Saishitang skarn copper deposit, Xinghai County, Qinghai Province, China
(35º17’15”N 99º47’15”E)
Gu Xiangping*, Xie Xiande, Wu Xiangbin, Lai Jianqing, Kenich Hoshino and Zhu Guchang
*E-mail: guxp2004@163.com
Fe(III)-dominant analogue of sepiolite
Orthorhombic: \(Pncn\)
\(a = 13.467(16), b = 26.953(41), c = 5.226(17) \text{ Å}\)
Type material is deposited in the collections of the Geological Museum of China,
People’s Republic of China, catalogue number M11786
Ferrisepiolite, IMA 2010-061. CNMNC Newsletter No. 7, February 2011, page 30; Mineralogical Magazine, 75, 27-31

IMA No. 2010-062
Brearleyite
\(\text{Ca}_{12}\text{Al}_{14}\text{O}_{32}\text{Cl}_2\)
NWA 1934 CV3 carbonaceous chondrite
Chi Ma*, Harold C. Connolly, Jr., John R. Beckett, George R. Rossman, Anthony R. Kampf, Thomas J. Zega, Oliver Tschauer, Stuart A. Sweeney Smith and Devin L. Schrader
*E-mail: chi@gps.caltech.edu
Derivative of mayenite
Cubic: \(I\bar{4} 3d\); structure determined
\(a = 11.9794(5) \text{ Å}\)
3.001(41), 2.685(100), 2.451(55), 2.192(33), 1.947(24), 1.665(42), 1.604(61), 1.310(22)
Type material is deposited in the collections of the Smithsonian Institution’s National Museum of Natural History, Washington DC, USA, catalogue number USNM 7590
Brearleyite, IMA 2010-062. CNMNC Newsletter No. 7, February 2011, page 31; Mineralogical Magazine, 75, 27-31

ERRATUM
IMA No. 2010-018
Laurentianite
In CNMNC Newsletter No. 4 (Williams, P.A., Hatert, F., Pasero, M. and Mills, S.J. (2010) Mineralogical Magazine, 74, 797-800), deposition data were given in error. The holotype is deposited in the collections of the Royal Ontario Museum, Department of Natural History, 100 Queen's Park, Toronto, ON, Canada M5S 2C6, catalogue number M55369.

NOMENCLATURE PROPOSALS APPROVED IN DECEMBER 2010
IMA 10-E: The heteropolytungstate family: new species, structural relationships and nomenclature scheme. A new suffix-based nomenclature is proposed for the heteropolytungstate family. According to this nomenclature scheme, betpakdalite is renamed betpakdalite-CaCa, natrobetpakdalite is renamed betpakdalite-NaCa, mendozavilite is renamed mendozavilite-NaFe, and obradovicite is renamed obradovicite-KCu. The names melkovite and paramendozavilite are retained. Potential new species with proposed names “betpakdalite-CaMg”, “betpakdalite-NaNa”, “mendozavilite-NaCu”, “mendozavilite-KCa”, “obradovicite-NaCu”, and “obradovicite-NaNa”, must be submitted to the CNMNC for evaluation by the usual new mineral approval procedure.

IMA 10-F: Proposal to rename ericssonite and orthoericssonite to ericssonite-2M and ericssonite-2O. Orthoericssonite is discredited, since it corresponds to the orthorhombic polytype of ericssonite. As a consequence, the remaining valid mineral ericssonite can show two polytypes: ericssonite-2M (previously named ericssonite), and ericssonite-2O (previously named orthoericssonite).