New minerals and nomenclature modifications approved in 2010

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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: P63/mmc
a = 2.950(2), c = 4.686(1) 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 in the collections of the Institute of Geology, Chinese Academy of Geological Sciences, Beijing, P.R. Republic of China catalogue number 74-3

DOI: 10.1180/minmag.2011.075.1.27
IMA No. 2010-046

Beˇhounekite
U(SO4)2(H2O)4
Geschieber vein, Jáchymov, Czech Republic
Jakub Plašil*, 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
$\mathbf{a} = 14.6464(3)$, $\mathbf{b} = 11.0786(3)$, $\mathbf{c} = 5.6910(1)$ Å

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
(Ca0.5 Sr0.5)(UO2)2(Nb5+Si)O6(OH)2·2H2O
Jaguaracu pegmatite, Jaguaracu municipality, Minas Gerais, Brazil (19º38’57”S 42º44’59”W)
*E-mail: datencio@usp.br
New structure type
Orthorhombic: Cmcm; structure determined
$\mathbf{a} = 14.150(6)$, $\mathbf{b} = 10.395(4)$, $\mathbf{c} = 7.529(3)$ Å

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
(K□)(CaFe2+Mn)7Ti2(Si4O12)2O2(OH)5
Verkhnee Espe deposit, Akjailyautas mountains, Kazakhstan (N 48º03’–48º10’ E 81º26’–81º29’)
A.V. Stepanov, G.K. Bekenova, V.L. Levin, E. Sokolova* and F.C. Hawthorn
*E-mail: elena_sokolova@umanitoba.ca
Astrophyllite group
Triclinic: $P\overline{1}$; structure determined
$\mathbf{a} = 4.095(80)$, $\mathbf{b} = 3.735(30)$, $\mathbf{c} = 3.497(50)$, $\mathbf{g} = 3.258(100)$, $\mathbf{f} = 2.858(80)$, $\mathbf{e} = 2.761(70)$, $\mathbf{d} = 2.646(30)$, $\mathbf{c} = 2.560(50)$

Type material is deposited 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
Na2ZrSi3O9·2H2O
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: $P\overline{3}1c$; structure determined
$\mathbf{a} = 7.414(1)$, $\mathbf{c} = 10.096(2)$ Å

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


IMA No. 2010-051

Markaksherite
Cu3(MoO4)(OH)4
Childs Aldwinkle mine, Bunker Hill District, Pinal County, Arizona, USA (32º45’07’’ N 110º28’55’’)

P. A. WILLIAMS ET AL.
Hexiong Yang*, Robert A. Jenkins, Robert T. Downs, Stanley H. Evans and Elias M. Bloch  
*E-mail: hyang@u.arizona.edu

Dimorph of zeni site  
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 the collections of the University of Arizona Mineral Museum,  
Tucson, Arizona, USA, catalogue number 19291

Markascherite, IMA 2010-051. CNMNC Newsletter No. 7, February 2010, page 28;  
Mineralogical Magazine, 75, 27–31

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 the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63357 and 63358

Mineralogical Magazine, 75, 27–31

IMA No. 2010-050
Veblenite  
$\text{KNa(Fe}^2\text{+Fe}^3\text{+Mn}_7\text{)}\text{Nb}_4(\text{Si}_2\text{O}_7)_2(\text{Si}_8\text{O}_{22})_2\text{O}_6(\text{OH})_10(\text{H}_2\text{O})_3$

Ten Mile Lake, Seal Lake area, Labrador, Newfoundland, Canada

Fernando Câmara*, Elena Sokolova, Frank C. Hawthorne, Ralph Rowe, Joel Grice and Kim Tait  
*E-mail: fernando.camaraartigas@unito.it

New structure type
Monoclinic: $C2/m$; structure determined  
a = 12.6018(10), b = 13.9132(11), c = 7.8356(6) Å,  
$\beta = 125.463(4)^\circ$

NEW MINERAL PROPOSALS APPROVED IN DECEMBER 2010

IMA No. 2010-054
Hylbrownite  
$\text{MgNa}_3\text{P}_3\text{O}_{10}\cdot 12\text{H}_2\text{O}$

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 kanorerovite
Monoclinic: $P2_1/n$; structure determined  
a = 14.722(3), b = 9.240(2), c = 15.052(3) Å,  
$\beta = 90.01(3)^\circ$

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 the collections of the South Australian Museum, Adelaide, South Australia, Australia, registration number G33088

Mineralogical Magazine, 75, 27–31

IMA No. 2010-055
Rongibbsite  
$\text{Pb}_2(\text{Si}_4\text{Al})\text{O}_{11}(\text{OH})$

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,  
$\beta = 125.463(4)^\circ$
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 the collections of
the Mineral Museum of the University of
Arizona, Tucson, Arizona, USA, catalogue number 19292

How to cite: Yang, H., Jenkins, R.A., Downs,
R.T., Evans, S.H., Bloch, E.M. and Halpern,

IMA No. 2010-056
Agardite-(Nd)
NdCu₆(AsO₄)₃(OH)₆·3H₂O
Hilarion Mine, Agios Konstantinos (Kamariza),
Larvon 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: P6₃/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. and

IMA No. 2010-057
Panguite
(Ti,Al,Sc,Mg,Zr,Ca)₁₈O₃
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,

IMA No. 2010-058
Cordylite-(La)
NaBaLa₂(O₃)₃F
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: P6₃/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 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. and

IMA No. 2010-059
Ferrosepiolite
(Fe³⁺,Fe²⁺,Mg)₄[(Si,Fe³⁺)₆O₁₅](O,OH)₂·6H₂O
Saishitang skarn copper deposit, Xinghai
County, Qinghai Province, China (35°17’15”N
99°47’15”E)
Gu Xiangping*, Xie Xiande, Wu Xiangbin, Lai
Jianqing, Kenich Hoshino and Zhu Guchang
*E-mail: gxzp2004@163.com
Fe(III)-dominant analogue of sepiolite
Orthorhombic: Pmcn
a = 13.467(16), b = 26.953(41), c = 5.226(17) Å
12.034(100), 4.468(5), 3.742(6), 3.378(31),
3.184(4), 2.704(6), 2.552(5), 2.060(4)
Type material is deposited in the collections of the Geological Museum of China, People’s Republic of China, catalogue number M11786
How to cite: Gu, X., Xie, X., Wu, X., Lai, J.,
Hoshino, K. and Zhu, G. (2010) Ferrosepiolite,
IMA No. 2010-062

Brearleyite
Ca$_{12}$Al$_{14}$O$_{32}$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 Tschauner, Stuart A. Sweeney Smith and Devin L. Schrader

*E-mail: chi@gps.caltech.edu

Derivative of mayenite
Cubic: $I\bar{4}3d$; structure determined
$a = 11.9794(5)$ 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


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 heteropolymolybdate family: new species, structural relationships and nomenclature scheme. A new suffix-based nomenclature is proposed for the heteropolymolybdate 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).