

# IMA Commission on New Minerals, Nomenclature and Classification (CNMNC)

## NEWSLETTER 12

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### New minerals and nomenclature modifications approved in 2012

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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

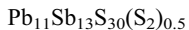
**Citation details concern the fact that this information will be published in the *Mineralogical Magazine* on a routine basis, as well as being added month by month to the Commission's web site.**

**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 2011****IMA No. 2011-076**

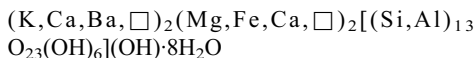
Disulfodadsonite

Ceragiola area of the Seravezza marble quarries,  
Apuan Alps, Tuscany, ItalyPaolo Orlandi\*, Yves Moëlo, Cristian Biagioni  
and Elena Bonaccorsi

\*E-mail: orlandi@dst.unipi.it

Cl-free homeotype of dadsonite, stabilized by  
 $\text{S}_2^{2-}$  ionsTriclinic:  $P\bar{1}$ ; structure determined $a = 4.1227(2)$ ,  $b = 17.4274(12)$ ,  $c = 19.1704(13)$  Å,  $\alpha = 96.196(6)$ ,  $\beta = 89.960(4)$ ,  
 $\gamma = 91.405(5)^\circ$ 3.820(vs), 3.649(s), 3.416(s), 3.381(vs),  
2.857(ms), 2.814(ms), 1.897(ms)Type material is deposited in the collections of  
the Museo di Storia Naturale e del Territorio,  
Università di Pisa, Calci, Italy, catalogue  
number 19442How to cite: Orlandi, P., Moëlo, Y., Biagioni, C.  
and Bonaccorsi, E. (2012) Disulfodadsonite,  
IMA 2011-076. CNMNC Newsletter No. 12,  
February 2012, page 152; *Mineralogical  
Magazine*, **76**, 151–155.**IMA No. 2011-080**

Hillesheimite

Graulay, Hillesheim, Eifel Mountains,  
Rheinland-Pfalz, GermanyNikita V. Chukanov\*, Natalia V. Zubkova, Igor  
V. Pekov, Dmitriy I. Belakovsky, Willi  
Schüller, Bernd Ternes, Günter Bläß and  
Dmitriy Y. Pushcharovsky

\*E-mail: chukanov@icp.ac.ru

Structurally related to günterblässite and  
umbrianiteOrthorhombic:  $Pmmn$ ; structure determined $a = 6.979(11)$ ,  $b = 37.1815(18)$ ,  $c = 6.5296(15)$  Å  
6.857(58), 6.545(100), 6.284(53), 4.787(96),  
4.499(59), 3.065(86), 2.958(62), 2.767(62)Type material is deposited in the collections of  
the Fersman Mineralogical Museum of the  
Russian Academy of Sciences, Moscow,  
Russia, registration number 4174/1How to cite: Chukanov, N.V., Zubkova, N.V.,  
Pekov, I.V., Belakovsky, D.I., Schüller, W.,  
Ternes, B., Bläß, G. and Pushcharovsky, D.Y.(2012) Hillesheimite, IMA 2011-080. CNMNC  
Newsletter No. 12, February 2012, page 152;  
*Mineralogical Magazine*, **76**, 151–155.**IMA No. 2011-082**

Ekplexite

Mount Kaskasnyunchorr, Khibiny alkaline  
complex, Kola Peninsula, RussiaIgor V. Pekov\*, Vasily O. Yapaskurt and Yury  
S. Polekhovsky

\*E-mail: igorpekov@mail.ru

Valleriite group

Trigonal:  $P321$ ,  $P3m1$  or  $P\bar{3}m1$  $a = 3.791(3)$ ,  $c = 11.30(1)$  Å  
11.37(100), 5.65(55), 3.155(4), 2.809(20),  
1.623(11)Type material is deposited in the collections of  
the Fersman Mineralogical Museum of the  
Russian Academy of Sciences, Moscow,  
Russia, registration number 4155/1How to cite: Pekov, I.V., Yapaskurt, V.O. and  
Polekhovsky, Y.S. (2012) Ekplexite, IMA 2011-  
082. CNMNC Newsletter No. 12, February  
2012, page 152; *Mineralogical Magazine*, **76**,  
151–155.**New mineral proposals approved in  
December 2011****IMA No. 2011-077**Thermessaite-(NH<sub>4</sub>)

La Fossa crater, Vulcano island, Italy

Anna Garavelli\*, Donatella Mitolo, Daniela  
Pinto

\*E-mail: a.garavelli@geomin.uniba.it

(NH<sub>4</sub>)-analogue of thermessaiteOrthorhombic:  $Pbcn$ ; structure determined $a = 11.3005(3)$ ,  $b = 8.6125(3)$ ,  $c = 6.8501(2)$  Å  
6.850(74), 5.650(100), 4.844(89), 3.082(47),  
3.063(56), 2.782(26), 2.681(28)Type material is deposited in the collections of  
the C.L. Garavelli Museum in the Dipartimento  
di Scienze della Terra e Geoambientali,  
Università degli Studi di Bari "Aldo Moro",  
Italy, sample number 15/nm-V28How to cite: Garavelli, A., Mitolo, D. and Pinto,  
D. (2012) Thermessaite-(NH<sub>4</sub>), IMA 2011-077.  
CNMNC Newsletter No. 12, February 2012,  
page 152; *Mineralogical Magazine*, **76**,  
151–155.

## IMA No. 2011-081

Laptevite-(Ce)

 $\text{Ca}_6(\text{Fe}^{2+}, \text{Mn}^{2+})\text{Y}_3\text{REE}_7(\text{SiO}_4)_3(\text{PO}_4)$   
( $\text{B}_3\text{Si}_3\text{O}_{18}$ )( $\text{BO}_3$ ) $\text{F}_{11}$ 

Dara-i-Pioz glacier moraine, Alai mountain range, Tien-Shan, Garmskii district, North Tajikistan (39°30'N 70°40'E)

A.A. Agakhanov\*, L.A. Pautov, Y. Uvarova, V.Y. Karpenko, E.V. Sokolova and F.C. Hawthorne

\*E-mail: pla@fmm.ru

Structurally related to structurally related to the okanoganite–vicanite group

Hexagonal:  $R3m$ ; structure determined $a = 10.804(2)$ ,  $c = 27.726(6)$  Å

4.41(29), 3.13(26), 3.03(100), 2.982(85), 2.954(60), 2.689(40), 1.797(31), 1.770(21)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4195/1

How to cite: Agakhanov, A.A., Pautov, L.A., Uvarova, Y., Karpenko, V.Y., Sokolova, E.V. and Hawthorne, F.C. (2012) Laptevite-(Ce), IMA 2011-081. CNMNC Newsletter No. 12, February 2012, page 153; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-083

Osumilite-(Mg)

 $\text{KMg}_2\text{Al}_3(\text{Al}_2\text{Si}_{10})\text{O}_{30}$ 

Bellerberg, Eastern Eifel area, Rheinland-Pfalz, Germany

Nikita V. Chukanov\*, Igor V. Pekov, Ramiza K. Rastsvetaeva, Sergey M. Aksenov, Dmitriy I. Belakovskiy, Willi Schüller and Bernd Ternes

\*E-mail: chukanov@icp.ac.ru

Mg analogue of osumilite

Hexagonal:  $P6/mcc$ ; structure determined $a = 10.0959(1)$ ,  $c = 14.3282(2)$  Å

7.21(37), 5.538(36), 5.064(85), 4.137(45), 3.736(43), 3.234(100), 2.932(42), 2.767(51)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4174/1

How to cite: Chukanov, N.V., Pekov, I.V., Rastsvetaeva, R.K., Aksenov, S.M., Belakovskiy, D.I., Schüller, W. and Ternes, B. (2012) Osumilite-(Mg), IMA 2011-083. CNMNC Newsletter No. 12, February 2012, page 153; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-084

Witzkeite

 $\text{Na}_4\text{K}_4\text{Ca}(\text{NO}_3)_2(\text{SO}_4)_4 \cdot 2\text{H}_2\text{O}$ 

Punta de Lobos, Tarapacá region, Chile (21°12'S 70°05'W)

Fabrizio Nestola\*, Fernando Cámara, Nikita V. Chukanov, Daniel Atencio, José M.V. Coutinho, Reynaldo R. Contreira Filho and Gunnar Färber

\*E-mail: fabrizio.nestola@unipd.it

New structure type

Monoclinic:  $Cc$ ; structure determined $a = 24.902(2)$ ,  $b = 5.3323(4)$ ,  $c = 17.246(1)$  Å,  
 $\beta = 94.281(7)^\circ$ 

12.377(100), 4.134(19), 3.100(24), 2.989(7), 2.851(6), 2.689(9), 2.482(12), 2.068(54)

Type material is deposited in the collections of the Mineralogical Museum of the University of Padova, Padova, Italy, catalogue number MMP M10009

How to cite: Nestola, F., Cámara, F., Chukanov, N.V., Atencio, D., Coutinho, J.M.V., Contreira Filho, R.R. and Färber, G. (2012) Witzkeite, IMA 2011-084. CNMNC Newsletter No. 12, February 2012, page 153; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-085

Starovaite

 $\text{KCu}_5\text{O}(\text{VO}_4)_3$ 

Yadovitaya fumarole, Tolbachik volcano, Kamchatka Peninsula, Kamchatka Oblast', Far-Eastern Region, Russia (55°41'N 160°14'E)

Igor V. Pekov\*, Michael E. Zelenski, Vasily O. Yapaskurt, Yury S. Polekhovskiy and Mikhail N. Murashko

\*E-mail: igorpekov@mail.ru

Known structure type

Triclinic:  $P\bar{1}$  $a = 6.08(4)$ ,  $b = 8.26(5)$ ,  $c = 10.71(6)$  Å,  $\alpha = 97.8(1)$ ,  $\beta = 92.4(1)$ ,  $\gamma = 90.4(1)^\circ$ 

10.65(32), 8.18(46), 3.047(41), 2.745(47), 2.526(100), 2.322(98), 1.867(25), 1.410(23)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4196/1

How to cite: Pekov, I.V., Zelenski, M.E., Yapaskurt, V.O., Polekhovskiy, Y.S. and Murashko, M.N. (2012) Starovaite, IMA 2011-085. CNMNC Newsletter No. 12, February 2012, page 153; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-086

Zaccariniite

RhNiAs

Loma Peguera, Dominican Republic  
(18.9900523°N 70.322982°W)

Anna Vymazalová\*, František Laufek, Milan Drábek, Chris J. Stanley, Ronald J. Bakker, Raul Bermejo, Giorgio Garuti, Oscar Thalhammer, Joaquin A. Proenza and Francisco Longo

\*E-mail: anna.vymazalova@geology.cz

Known structure type

Tetragonal:  $P4/nmm$  $a = 3.5496(1)$ ,  $c = 6.1578(2)$  Å

2.326(97), 2.053(56), 1.945(100), 1.776(58),

1.775(83), 1.256(86), 1.164(60), 0.973(69)

Type material is deposited in the collections of the Mineralogical Museum of Leoben, Peter Tunner Strasse 5, Leoben, Austria, catalogue number 8241

How to cite: Vymazalová, A., Laufek, F., Drábek, M., Stanley, C.J., Bakker, R.J., Bermejo, R., Garuti, G., Thalhammer, O., Proenza, J.A. and Longo, F. (2012) Zaccariniite, IMA 2011-086. CNMNC Newsletter No. 12, February 2012, page 154; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-087

Piemontite-(Pb)

 $\text{CaPbAl}_2\text{Mn}^{3+}[\text{Si}_2\text{O}_7][\text{SiO}_4]\text{O}(\text{OH})$ 

Mixed Series formation, Babuna valley, 40 km SW of Veles, Nežilovo village, Jacupica Mountains, Macedonia

Nikita V. Chukanov\*, Dmitriy A. Varlamov, Fabrizio Nestola, Dmitriy Belakovskiy, Jörg Goettlicher, Sergey Britvin, Arianna Lanza and Simeon Jancev

\*E-mail: chukanov@icp.ac.ru

Epidote group

Monoclinic:  $P2_1/m$ ; structure determined $a = 8.938(1)$ ,  $b = 5.6810(6)$ ,  $c = 10.289(1)$  Å, $\beta = 114.17(1)^\circ$ 

8.12(68), 4.67(53), 3.518(77), 2.931(100),

2.843(51), 2.736(57), 2.619(66), 2.122(46)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4193/1

How to cite: Chukanov, N.V., Varlamov, D.A., Nestola, F., Belakovskiy, D., Goettlicher, J., Britvin, S., Lanza, A. and Jancev, S. (2012) Piemontite-(Pb), IMA 2011-087. CNMNC Newsletter No. 12, February 2012, page 154; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-088

Mendozaavilite-KCa

 $[\text{K}_2(\text{H}_2\text{O})_{15}\text{Ca}(\text{H}_2\text{O})_6][\text{Mo}_8\text{P}_2\text{Fe}_3^{3+}\text{O}_{34}(\text{OH})_3]$ 

Chuquicamata mine, Antofagasta, Chile

Anthony R. Kampf\*, Stuart J. Mills, Michael S. Rumsey, John Spratt and Maurizio Dini

\*E-mail: akampf@nhm.org

Betpakdalite group

Monoclinic:  $C2/m$  $a = 18.909(5)$ ,  $b = 10.897(2)$ ,  $c = 14.958(4)$  Å, $\beta = 129.780(9)^\circ$ 

11.643(16), 8.850(100), 7.369(34), 3.675(16),

3.125(26), 2.998(25), 2.846(16), 2.018(21)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63315 and 63572

How to cite: Kampf, A.R., Mills, S.J., Rumsey, M.S., Spratt, J. and Dini, M. (2012) Mendozaavilite-KCa, IMA 2011-088. CNMNC Newsletter No. 12, February 2012, page 154; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-089

Hilarionite

 $\text{Fe}_2^{3+}(\text{SO}_4)(\text{AsO}_4)(\text{OH})\cdot 6\text{H}_2\text{O}$ 

Hilarion mine, Agios Konstantinos (Kamariza), Lavrion District, Attiki Prefecture, Greece

Igor V. Pekov\*, Nikita V. Chukanov, Vasilii O. Yapaskurt, Vyacheslav S. Rusakov, Dmitriy I. Belakovskiy, Anna G. Turchkova, Panagiotis Voudouris, Athanassios Katerinopoulos and Andreas Magganas

\*E-mail: igorpekov@mail.ru

Related to kaňkite

Monoclinic:  $C2$ ,  $Cm$  or  $C2/m$  $a = 18.53(4)$ ,  $b = 17.43(3)$ ,  $c = 7.56(1)$  Å,  $\beta =$  $94.06(15)^\circ$ 

12.66(100), 7.60(6), 5.00(10), 4.70(10), 4.33(7),

3.215(4), 3.151(4), 2.887(5)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, catalogue number 92988

How to cite: Pekov, I.V., Chukanov, N.V., Yapaskurt, V.O., Rusakov, V.S., Belakovskiy, D.I., Turchkova, A.G., Voudouris, P., Katerinopoulos, A. and Magganas, A. (2012) Hilarionite, IMA 2011-089. CNMNC Newsletter No. 12, February 2012, page 154; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-092

## Kangite

 $(\text{Sc}, \text{Ti}, \text{Al}, \text{Zr}, \text{Mg}, \text{Ca}, \square)_2\text{O}_3$ 

Allende meteorite

Chi Ma\*, Oliver Tschauner, George Rossman and Wenjun Liu

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

Bixbyite group

Cubic:  $Ia\bar{3}$ ; structure determined $a = 9.842(1) \text{ \AA}$ 4.019(16), 2.842(100), 2.461(10), 2.099(15),  
1.931(75), 1.740(51), 1.519(29), 1.484(23)

Holotype material in section USNM 7555 is housed in the collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA

How to cite: Ma, C., Tschauner, O., Rossman, G. and Liu, W. (2012) Kangite, IMA 2011-092. CNMNC Newsletter No. 12, February 2012, page 155; *Mineralogical Magazine*, **76**, 151–155.

## IMA No. 2011-093

## Wopmayite

 $\text{Ca}_6\text{Na}_3\square\text{Mn}(\text{PO}_4)_3(\text{PO}_3\text{OH})_4$ 

Tanco mine, Bernic Lake, Manitoba, Canada

Mark A. Cooper, Robert Ramik, Frank C. Hawthorne\*, Neil A. Ball, Yassir A. Abdu and Kimberly T. Tait

\*E-mail: frank\_hawthorne@umanitoba.ca

Structurally related to whitlockite

Rhombohedral:  $R\bar{3}c$ ; structure determined $a = 10.3926(2)$ ,  $c = 37.1694(9) \text{ \AA}$   
8.017(31), 6.421(32), 5.166(33), 3.425(29),  
3.186(88), 2.858(100), 2.736(27), 2.589(68)

Type material is deposited in the collections of the Department of Natural History, Royal Ontario Museum, Toronto, Ontario, Canada, catalogue number M54948

How to cite: Cooper, M.A., Ramik, R., Hawthorne, F.C., Ball, N.A., Abdu, Y.A. and Tait, K.T. (2012) Wopmayite, IMA 2011-093. CNMNC Newsletter No. 12, February 2012, page 155; *Mineralogical Magazine*, **76**, 151–155.

