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

Newsletter 63

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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 (ideal formula)
Mineral symbol
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 powder X-ray 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 AUGUST 2021

IMA No. 2021-041
Kiryuite
NaMnAl(PO4)F3
Kyu
Tsukubara, Kiryu city, Gunma Prefecture, Japan (36°30’41” N, 139°25’26” E)
Daisuke Nishio-Hamane*, Issei Ikari and Yoshihiro Ohara
*E-mail: hamane@issp.u-tokyo.ac.jp
The Mn analogue of vitianiite
Monoclinic: P21/m; structure determined
a = 5.425(4), b = 7.128(4), c = 6.817(6) Å, β = 109.41(7)°
3.213(57), 3.124(26), 2.923(53), 2.877(100), 2.560(57), 2.305(27), 2.263(43), 2.155(76)
Type material is deposited in the mineralogical collections of the National Museum of Nature and Science, Amakubo 4-1-1, Tsukuba, Japan, specimen number NSM-M48724

IMA No. 2021-042
Håleniusite-(Ce)
CeOF
Hål-Ce
Água de Pau volcano (Fogo volcano), Sân Miguel Island, Azores District, Portugal (37°46’31” N, 25°27’31” W)
Anthony R. Kampf*, Chi Ma and Luigi Chiappino
*E-mail: akampf@nhm.org
The Ce analogue of håleniusite-(La)
Cubic: Fm3m
a = 5.6597(10)

*Author for correspondence: Marco Pasero. Email: marco.pasero@unipi.it

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Alicewilsonite-(YLa)  
Na2Sr2YLa(CO₃)₆·3H₂O

Whiteite-(MnMnMn)  
Mn²⁺⁴Mn³⁺⁵Al₂(PO₄)₄(OH)₂·8H₂O

Whiteite-(MnMnMn)  
Mn²⁺⁴Mn³⁺⁵Al₂(PO₄)₄(OH)₂·8H₂O


NEW MINERAL PROPOSALS APPROVED IN SEPTEMBER 2021

IMA No. 2021-036
Ferroberaunite
$\text{Fe}^{2+}\text{Fe}^{3+}(\text{PO}_4)_{4}$(OH)$_3\cdot6\text{H}_2\text{O}$
Fbru
Gravel Hill Mine, Perranzabuloe, Cornwall, England, United Kingdom (50°22′27.0″ N, 5°08′42.0″ W)
Jarmir Tvrđy*, Jakub Plášil, Jiří Sejkora, Radek Škoda, Luboš Vrtiška, Zdeněk Dolniček, Martin Petr and František Veselovský
*E-mail: jt.geologie@gmail.com
The Fe$^{2+}$ analogue of zincoceraunite
Monoclinic: $C2/c$; structure determined
$a = 20.8729(6), b = 5.1581(2), c = 19.2294(5) \, \text{Å}, \beta = 93.396(2)^\circ$
$10.410(100), 9.606(14), 7.271(11), 5.203(4), 3.467(12), 3.325(6), 3.201(6), 2.600(4)$
Type material is deposited in the collections of the Department of Mineralogy and Petrology, National Museum in Prague, Cirkusová 1740, Praha 9, Czech Republic, catalogue number P1P 11/2021

IMA No. 2021-043
Gismondine-Sr
$\text{Sr}_4(\text{Si}_6\text{Al}_4\text{O}_{12})\cdot9\text{H}_2\text{O}$
Gis-Sr
Halamish, Hatrurim Basin, Negev Desert, Israel (31°09′42″ N, 35°17′29″ E)
Katarzyna Nowak*, Georgia Cametti, Irina O. Galuskina, Yevgeny Vapnik and Evgeny V. Galuskin
*E-mail: katarzyna.k.nowak@us.edu.pl
Zeolite group (GIS-type framework)
Orthorhombic: $B22_2$; structure determined
$a = 14.0256(2), b = 10.4590(1), c = 13.7936(1) \, \text{Å}$
$7.165(34), 4.917(100), 4.192(88), 4.167(46), 3.128(47), 2.683(34), 2.663(25), 2.615(29)$
Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 570/1

IMA No. 2021-045a
Nitroplumbite
$[\text{Pb}_4(\text{OH})_4](\text{NO}_3)_4$ Npb
Burro mine, Slick Rock district, San Miguel Co., Colorado, USA (38°02′42″ N, 108°53′22″ W)
Anthony R. Kampf*, John M. Hughes, Barbara P. Nash and Joe Marty
*E-mail: akampf@nhm.org
Known synthetic analogue
Monoclinic: $ia$; structure determined
$a = 18.3471(7), b = 17.3057(4), c = 18.6698(8) \, \text{Å}, \beta = 91.872(3)^\circ$
Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 76147 (holotype) and 76148 (cotype)

IMA No. 2021-051
Savelievaita
$\text{Mg}_3\text{Cr}_3^{2+}\text{O}_9(\text{BO}_3)$ Svlv
Left bank of the Malaya Kharamatalou river valley, northern part of the Voikar-Syninskiy ultrabasite complex, Shuryshkarskiy District, Yamalo-Nenets Autonomous Okrug, Polar Urals, Russia (66°39′57″ N, 64°41′50″ E)
Igor V. Pekov*, Nadezhd V. Vakhrusheva, Natalia V. Zubkova, Vasilii O. Yapaskurt, Yulia S. Shelukhina, Yuriy V. Erokhin, Maria O. Bulakh, Sergey N. Britvin and Dmitry Y. Pushcharovsky
*E-mail: igorpekov@mail.ru
Ludwigite group
Orthorhombic: $Pbam$; structure determined
$a = 9.2631(5), b = 12.2298(8), c = 3.0104(2) \, \text{Å}$
$5.101(100), 3.008(24), 2.551(90), 2.524(88), 2.163(36), 2.033(55), 1.906(29), 1.574(25)$
Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5720/1

IMA No. 2021-052
Radvanicite
$\text{GeS}_2$ Rad
Katerina mine, eastern part of the Radvanice village, about 12 km east of the town of Trutnov, northern Bohemia, Czech Republic (50°33′55″ N, 16°03′56.2″ E)
Jiří Sejkora*, Vladimír Žáček, Radek Škoda, František Laufek and Zdeněk Dolniček
*E-mail: jiri.sejkora@nm.cz
Known synthetic analogue

IMA No. 2021-053

Kaznakhtite

USA (31°42'09" N, 110°03'43" W)

Anthony R. Kampf*, Stuart J. Mills, Robert M. Housley, Chi Ma and Brent Thorne

*E-mail: akampf@nhm.org

New structure type

Trigonal: P321; structure determined

a = 9.1377(9), c = 12.2797(9) Å

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue number 76150


IMA No. 2021-054

Aldomarinoite

Sr₂Mn³⁺(AsO₄)₂(OH)

Aldm

Grand Central mine, Tombstone district, Cochise Co., Arizona, USA (31°42'09" N, 110°03'43" W)

Fernando Cámara*, Lisa Baratelli, Marco E. Ciriotti, Fabrizio Nestola and Gian Carlo Piccoli

*E-mail: fernando.camara@unimi.it

Brackebuschite supergroup

Monoclinic: P2₁/m; structure determined

a = 7.5577(4), b = 5.9978(3), c = 8.7387(4) Å, β = 111.938(6)°

Type material is deposited in the collections of the Museum di Mineralogia, Gemmologia, Petrologia e Giacimentologia, Dipartimento di Scienze della Terra “Ardiso Desio”, Università di Milano, Italy, catalogue number MCMGPG-H2021-001


IMA No. 2021-056

Scenicite

\[[\text{UO}_2](\text{H}_2\text{O})_2(\text{SO}_4)\]_2 \cdot 3\text{H}_2\text{O}

Scé

Scenic mine, Fry Mesa, White Canyon district, San Juan Co., Utah, USA (37°38'43" N, 110°07'10" W – holotype); Green Lizard Mine, White Canyon district, San Juan Co., Utah, USA (37°34'37.10" N, 110°17'52.80" W – cotype)

Anthony R. Kampf*, Jakub Plášil, Travis A. Olds, Chi Ma and Joe Marty

*E-mail: akampf@nhm.org

Structurally related to shumwayite

Orthorhombic: Pca₂; structure determined

a = 21.214(1), b = 6.8188(3), c = 11.2554(6) Å

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 76153 (holotype) and 76154 (cotype)


IMA No. 2021-057

Dongchuanite

Pb₂Zn₂(PO₄)₃(OH)₂

Dc

Sanguozhuang Village, Tangdan Town, Dongchuan District, Kunming City, Yunnan Province, China (26°07'36" N, 103°00'19" E)

Guowu Li*, Hongtao Shen, Ningyue Sun, Yuan Xue and Jinhua Hao

*E-mail: liguowu@cugb.edu.cn

New structure type

Triclinic: P̅T; structure determined

a = 4.762(1), b = 8.507(2), c = 10.364(2) Å, α = 97.11(2), β = 101.46(2), γ = 101.938(6)°
Ozernovskite
China University of Geosciences, Beijing 100083, People’s Republic of China, catalogue no. DC-1 (cotype)

Pomite

IMA No. 2021-059

Ozernovskite
Fe₄⁺(Te⁶⁺O₆)(Te⁴⁺O₄)₄·7H₂O
Ozn
Orebody No. 5, Ozernovskoe gold deposit, 115 km north of the town of Klyuchi, Kamchatka peninsula, Far-Eastern Region, Russia (57°35'31" N, 160°38'13" E)
Igor V. Pekov*, Sergey N. Pletnev, Nikita V. Chukanov, Dmitry I. Belakovskiy and Vasily O. Yapaskurt
*E-mail: igorpekov@mail.ru

New structure type
Monoclinic: C2/c; structure determined
a = 25.923(3), b = 10.419(1), c = 7.902(1) Å, β = 93.415(4)°

Type material is deposited in the mineralogical collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5728/1


IMA No. 2021-061

Colomeraite
NaTi³⁺Si₂O₆
Colo
Colomera iron meteorite, fall in 1912 at Colomera, Benalúa de las Villas, Granada, Andalusia, Spain (37°25’59” N, 3°38’59” W)
Chi Ma*
*E-mail: chima@caltech.edu

Pyroxene group
Monoclinic: C2/c; structure determined
a = 9.70(1), b = 8.88(1), c = 5.30(1) Å, β = 106.8(1)°
2.996(100), 2.923(43), 2.562(21), 2.537(40), 2.496(37), 1.637(20), 1.619(19), 1.408(22)

Type material is deposited in the mineralogical collections of the Smithsonian National Museum of Natural History, 10th St. & Constitution Ave. NW, Washington, DC 20560, USA, catalogue number USNM 7928


IMA No. 2021-063

Pomite

Ca₃[V⁵⁺V⁷⁺O₇(CO₃)]·37H₂O
Pom

Blue Streak mine, about 13 km west of the town of Naturita, Bull Canyon, Montrose Co., Colorado, USA (38°11’58” N, 108°50’24” W)
Anthony R. Kampf*, John M. Hughes, Chi Ma, Joe Marty and Timothy P. Rose
*E-mail: akampf@nhm.org

Closely related to pseudopomite (IMA No. 2021-064; this newsletter)

Triclinic: PṬ; structure determined
a = 12.367(1), b = 12.969(1), c = 22.068(2) Å, α = 99.038(7), β = 95.689(7), γ = 103.249(7)°
11.87(100), 10.62(98), 10.04(30), 9.06(37), 5.21(14), 3.921(18), 3.075(19), 2.632(14)

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 76155


IMA No. 2021-064

Pseudopomite
Ca₃₃[V⁴⁺V₅⁺O₇(CO₃)]·29H₂O
Ppom

Blue Streak mine, about 13 km west of the town of Naturita, Bull Canyon, Montrose Co., Colorado, USA (38°11’58” N, 108°50’24” W)
Anthony R. Kampf*, John M. Hughes, Chi Ma, Joe Marty and Timothy P. Rose
*E-mail: akampf@nhm.org

Closely related to pomercite (IMA No. 2021-064; this newsletter)

Triclinic: PṬ; structure determined
a = 12.291(2), b = 12.820(1), c = 20.917(3) Å, α = 77.381(6), β = 85.965(5), γ = 64.367(7)°
10.94(100), 10.00(73), 8.86(31), 5.32(16), 4.42(11), 3.074(22), 2.953(19), 2.890(18)

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 76155


IMA No. 2021-065

Cuprodongchuanite
Pb₄CuZn₂(PO₄)₃(OH)₂
Cdc

Sanguozhuang Village, Tangdan Town, Dongchuan District, Kunming City, Yunnan Province, China (26°07’36” N, 103°00’19” E)
Ningyue Sun, Guowu Li*, Yuan Xue, Hongtao Shen and Jinhua Hao
*E-mail: liguowu@cugb.edu.cn

The Cu analogue of dongchuanite (IMA No. 2021-058; this newsletter)

Triclinic: PṬ; structure determined

The Cu analogue of dongchuanite (IMA No. 2021-058; this newsletter)
IMA No. 2019-069/20-F
Shimenite
\(\text{Tl}_5\text{Sb}_{11.1}\text{As}_2\text{S}_{14}(9 \leq y \leq 10)\)
Shmn
Jiepaiyu mine, Shimen, Changde, Hunan, China (29°34′24″ N, 111°17′10″ E)
Dan Topa*, Frank N. Keutsch, Uwe Kolitsch, Christian Lengauer, Gerald Giester and Chris Stanley
E-mail: dan.topa@nhm-wien.ac.at
Chabournéite group
Triclinic: \(\text{P}1\); structure determined
\(a = 8.1137(5), \quad b = 6.6488(6), \quad c = 21.258(1) \text{ Å}, \quad \alpha = 84.181(4), \quad \beta = 83.378(4), \quad \gamma = 89.951(4)^o\)
4.032(47), 3.993(85), 3.625(84), 3.563(100), 3.033(72), 2.855(52), 2.830(70), 2.737(68)
Type material is deposited in the mineralogical collections of the Naturhistorisches Museum Wien, Burgring 7, 1010 Vienna, Austria, catalogue number O1197

IMA No. 2019-098/20-F
Dewitite
\(\text{Ag}_{0.10-0.34}\text{Pb}_{0.22-0.50}\text{Sb}_{2.13-2.71}\text{As}_{0.68}(0.09 \leq x \leq 2.13, 13.99 \leq y \leq 19.79, 0.10 \leq z \leq 0.50)\)
Dwt
Jas Roux, La Chapelle-en-Valgaudemar, Hautes-Alpes, Provence-Alpes-Côte d’Azur, France (44°48′45″N, 6°19′18″E)
Dan Topa*, Uwe Kolitsch, Berthold Stoeger, Frank Keutsch and Chris Stanley
E-mail: dan.topa@nhm-wien.ac.at
Chabournéite group
Triclinic: \(\text{P}1\); structure determined
\(a = 8.626(2), \quad b = 16.351(3), \quad c = 21.892(4) \text{ Å}, \quad \alpha = 74.96(3), \quad \beta = 83.59(3), \quad \gamma = 88.91(3)^o\)
3.948(50), 3.590(50), 3.561(100), 3.341(48), 2.872(61), 2.813(62), 2.732(48), 2.156(63)
Type material is deposited in the mineralogical collections of the Naturhistorisches Museum, Burgring 7, 1010 Wien, Austria, catalogue number O1197

NOMENCLATURE/CLASSIFICATION PROPOSALS APPROVED IN SEPTEMBER 2021
An end-member formula for humite, \(\text{Mg}_7(\text{SiO}_4)_3(\text{F,OH})_2\)
The humite polysomatic series consists of a set of minerals with the general formula \(n[\text{Mg}_7(\text{SiO}_4)_3]-\text{Mg}(\text{OH,FO})_2\), with \(n = 1, 2, 3, 4\).

The only species without an end-member formula is humite, \(\text{Mg}_7(\text{SiO}_4)_3(\text{F,OH})_2\), which has both fluorine and hydroxyl within the same brackets. As in the whole series a rootname without a prefix is used for the fluorine end-member, whereas the same rootname with the prefix ‘hydroxyl’- is used for the hydroxyl end-member, the formula \(\text{Mg}_7(\text{SiO}_4)_3\) is to be assigned to the mineral humite. This is an executive decision taken by the officers of the IMA-CNMNC.

Renaming of gismondine
Following the report of the Zeolite subcommittee, after the approval of the new mineral IMA 2021-043 – gismondine-Sr (see this Newsletter), ‘gismondine’ becomes a series name. Accordingly the mineral previously known as gismondine is renamed gismondine-Ca.

IMA 20-F: Chabournéite group
Proposal 20-F is accepted, and the chabournéite group is established. The group includes the minerals chabournéite, protochabournéite, dalnegroite, shimenite and dewitite. All members of this group are triclinic, space group \(\text{P}1\), with the exception of dalnegroite, which has space group \(\text{P}1\).

The ideal formulae of protochabournéite and chabournéite are revised as follows:
Protochabournéite – \(\text{Tl}_4-\text{x}\text{Pb}_{2+2}\text{Sb}_{20-\text{x}y}\text{As}_{4}\text{S}_{34}\) (with \(0.02 \leq x \leq 0.34, 5.71 \leq y \leq 6.69\)).
Chabournéite – \(\text{Ag}_{0.10-0.34}\text{Pb}_{2.13-2.71}\text{Sb}_{2.13-2.71}\text{As}_{0.68}\) (with \(0.00 \leq x \leq 0.40, 16.15 \leq y \leq 19.11, 0.04 \leq z \leq 0.11\)).

IMA 21-D: Redefinition of beraunite and discreditation of eleonorite
Proposal 21-D is accepted. The formula of beraunite is revised as \(\text{KAl}_2(\text{PO}_4)_2\text{F} \cdot 4\text{H}_2\text{O}\), based on new EMPA, Mössbauer and SCXRD data obtained on type material. Eleonorite is discredited, as it is identical to beraunite.

IMA 21-E: Redefinition of minyulite
Proposal 21-E is accepted, and the formula of minyulite is redefined as \(\text{KAl}_2(\text{PO}_4)_2\text{F} \cdot 4\text{H}_2\text{O}\), based on new EMPA data obtained on holotype material, which confirmed that the mineral is (OH)-free and has F as a species-forming constituent.