

NEWS

14/08/2015

Perettiite-(Y) – A new mineral discovery from Momeik, Myanmar

GRS announces the discovery of a new mineral: **Perettiite-(Y)** found in Burma (Myanmar) by Dr. Adolf Peretti which has also been named after him. The minerals discoverer is head gemologist and owner of GRS Gemresearch Swisslab AG.

“Perettiite” was identified after months of intense laboratory sessions with the support of a highly accomplished team of gemologists at his GRS Gemresearch Swiss Lab AG in Adligenswil (new location is Meggen), Switzerland together with researchers from various universities all over the world; one of the finest examples of collaborative endeavour between the world’s most renowned gemologists and scientists.

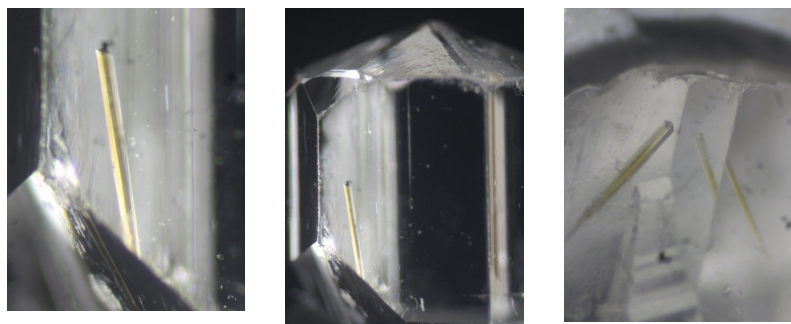
Perettiite-(Y) with its chemical formula **Perettiite-(Y), $Y^{3+}_2Mn^{2+}_4Fe^{2+}[Si_2B_8O_{24}]$** is a new mineral containing some of the rarest elements in the universe, such as Yttrium, Samarium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium and Lutetium – the rare earth elements (REE) which were created eons ago by the unimaginable force of multiple supernovae and red giant star explosions. When our planet earth was formed, those elements ended up in nature’s laboratory more than 10 kilometers below the earth’s surface where the Indian and Asian subcontinent collide; it was there that Perettiite was formed as fine needle inclusions in gemstones.

“Realising that Perettiite-(Y) is actually a fingerprint of elements, like an echo from billions of years of history of the universe, was unbelievably humbling.” - **Adolf Peretti**

Locating and retrieving samples of Perettiite-(Y) was another of the many expeditions Dr. Peretti has taken upon himself during thirty years of scientific discoveries. It lead him close to [Momeik](#), an area about 30 kilometers north of Mogok in Burma, during an ongoing conflict between the Kashin state and the Burmese government. It is an area where, according to him, “*the geology goes crazy and a lot of research is needed to bring all the puzzle pieces together.*” It’s in this “Terra Incognita” in Burma that Perettiite-(Y) was found, which very much reflects his lifestyle – always pushing the edge of science. With the help of a local geologist, Dr. Peretti was able to acquire sample materials from behind the front-lines and to forward them to his team at the GRS Gemresearch Swisslab AG in Switzerland.

Dr. Peretti commissioned the renowned French film-maker (television TF1) Vincent Reynaud to shoot a documentary “*From Rock to Treasure – A Lifetime Experience*”. The program follows the journey of a ruby from its discovery in the mines of Burma along through the cutting process of a high value ruby rough.

A celebration of Dr. Peretti's lifetime of scientific discoveries, the premiere of his new movie and the baptising of an actual "Perettiite" crystal, together with a "Thank You & 20th Anniversary Party" for all supporters and scientists who helped GRS Gemresearch Swisslab AG to become the vibrant and well-equipped state-of-the-art Swiss laboratory which it is today, was held on 29th August 2015 at the Park Hotel Vitznau, Switzerland.



Original Paper

[Perettiite-\(Y\), \$Y^{3+}_2 Mn^{2+}_4 Fe^{2+} \[Si_2 B_8 O_{24}\]\$, a new mineral from Momeik, Myanmar](#)

Authors: Danisi, Rosa Micaela; Armbruster, Thomas; Libowitzky, Eugen; Wang, Hao A.O.; Günther, Detlef; Nagashima, Mariko; Reusser, Eric; Bieri, Willy

[European Journal of Mineralogy Volume 27 Number 6 \(2015\)](#), p. 793 - 803, published: Dec 14, 2015

Keywords: Perettiite-(Y); $Y^{3+}_2 Mn^{2+}_4 Fe^{2+} [Si_2 B_8 O_{24}]$; crystal structure; new mineral; borosilicate; Momeik; Myanmar.

[DOWNLOAD PAPER \(PDF\)](#)

News articles on Perettiite-(Y)

[Die Bündner Berge waren der Schlüssel](#)

[Bündner Tagblatt](#), published 4 September 2015

[Luzerner Firma identifiziert neues Mineral](#)

[Neue Luzerner Zeitung](#), published 19 August 2015

[Perettiite - Ein Mineral erhält den Namen seines Entdeckers](#)

[Gemmo-News, Ausgabe 42](#), Österreichische Gemmologische Gesellschaft, published autumn 2015

[Perettiite - A Mineral Discovery from Burma](#)

[The Bulletin of the New York Mineralogical Club, Inc. Vol. 129, No. 11](#), published November 2015

Additional external resources on Perettiite-(Y)

[Perettiite-\(Y\) on Mindat.org](#)

[Perettiite-\(Y\) on Wikipedia.org](#)

[Perettiite-\(Y\) on Mineralienatlas.de](#)

[Perettiite-\(Y\) in Handbook of Mineralogy](#)

[Perettiite-\(Y\) on IMA \(page 139\) list of approved new minerals](#)

Peretti Discusses Perettiite-(Y)

“This is an amazingly beautiful needle-like orange mineral with a new crystal structure that I discovered in the Mogok market. It actually originates from Momeik, however, I had never seen anything like this so I sent it to our scientist-network in Switzerland,” explains Dr. Peretti. It is a miracle of nature and certainly a pinnacle in my career. Thanks to the scientists whose efforts rescued and decoded this unique natural creation. It would have been lost forever had we not had such brilliant scientists and cutting-edge technology available to us.

Further crystallographic details for insider crystallographers on the new mineral Perettiite-(Y) are included European Journal of Mineralogy (2015, 27, 793-803) at press now and will be released in time for the celebration.

“This is a fine examples of a collaborative endeavour between gemologists and scientists in the world of mineralogical discoveries. No wonder no one had identified it yet.” Dr. Peretti said. “It needed the utmost effort from the world’s most renowned mineralogists.”

Videos

Article URL: <https://www.gemresearch.ch/news/2015/08/14/perettiite>

© 2023, GRS GemResearch Swisslab AG