

The spectacular borates of Shijiangshan, Inner Mongolia A.R. (China)

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The Skarn-type deposit of Shijiangshan, Keqi County, Ulanhad League, Inner Mongolia A.R. (China) is a new location that recently yielded nice specimens of several borate minerals.

Almost nothing have been published about this skarn type mineralization, related with the famous Huanggang Sn-Fe deposit, but soon some papers will be published on this topic.

Now, I want to share one of the interesting mineral species found in Shijiangshan: the Pentahydroborite, a hydrated calcium borate originally described in the Novofrolovskoye B-Cu skarn- type deposit. The Pentahydroborite was found in Shijiangshan forming euhedral crystals of centimeter size, which conforms very beautiful specimens. It is interesting, also, the mineral association: unexpected Andradite crystals implanted on Pentahydroborite, Wurtzite and minor Galena.

The chemistry of borate is complex. In consequence, several calcium borate minerals have been described. I think that this list will still giving beautiful species for a while. Apart of Pentahydroborite, the Shijiangshan deposit yields beautiful specimens of other borate minerals. Here in GeoSpectra are now working on some of these borates, specially the olshanksyite, which gave [interesting results](#).



Beautiful Pentahydroborite crystal. FOV 1.2 cm



Andradite garnet (3 mm crystal) on Pentahydroborite.



Beautiful group of Pentahydroborite crystals. The dark mineral backwards is Wurtzite.



Detail of the Wurtzite, the high temperature hexagonal polymorph of Sphalerite, on Pentahydroborite.

One of the most interesting minerals of this mine is the olshanskyite, a very rare calcium borate. Its identification was not easy, due to bibliographic errors in its Raman study.



Centimeter-size crystals of olshanskyite. The Shijiangshan mine yielded the best specimens of pentahydroborite and olshanskyite on Earth.