

# The chromate-rich mimetite from Nakhlak (Iran)

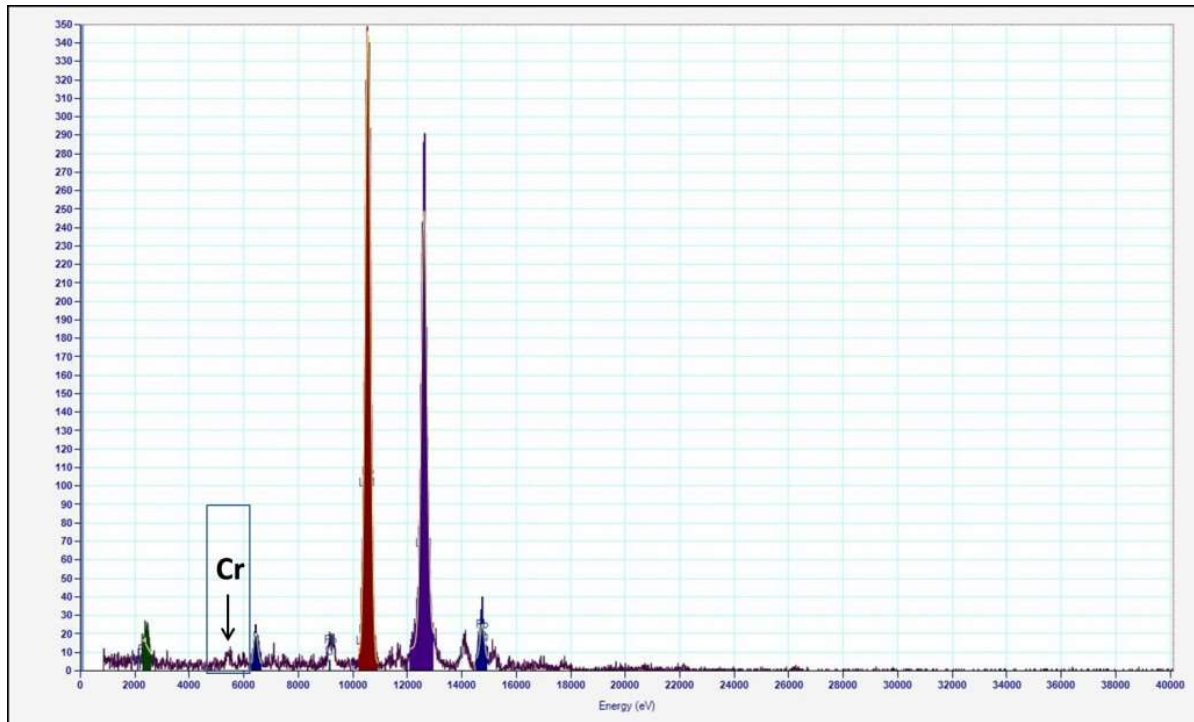
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Our client and friend Jordi of [Fabreminerals](#) sent me an interesting specimen from the remote lead mine of [Nakhlak](#) (Madan-e Nakhlak, Anarak district, Nain, Esfahan province, Iran). The specimen is formed by beautiful barite covered with small, submillimeter-sized hexagonal prisms with bipyramidal terminations. The crystals are orange-red and possibly mimetite.

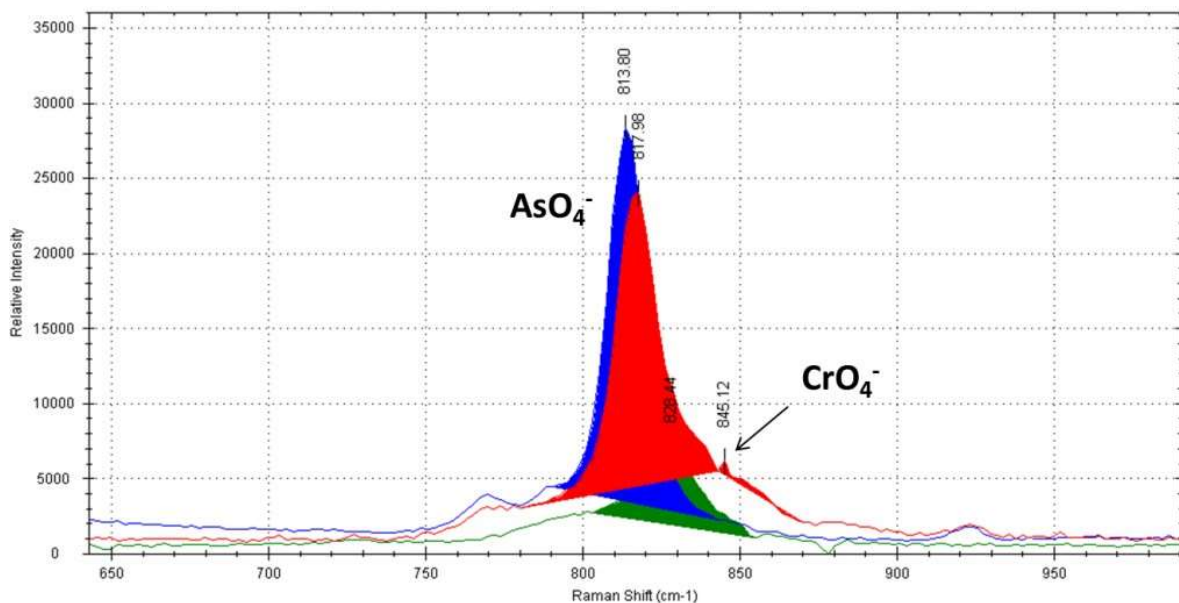


Cr-rich mimetite on barite. FOV 1.2 cm

The study using APXS of the sample shows a chromium peak, apart of the dominant lead (influence of the cerussite matrix) and arsenic:



The Raman microscopy confirms the Mimetite species. The interpretation of the spectrum suggests the presence of chromate, possibly in solid solution in mimetite. The Raman shift of the chromate peak coincides with those of crocoite.



The proportion of chromate is significant, but low. Hence, the denomination «bellite» of [Cesbron](#), which refers to the chromate-dominant mimetite analog, is not applicable. Anyway, this chromium bearing mimetite is a very rare case and ideal to asset the proportions and crystal chemistry of chromate in lead arsenate.

