

Betafite - $(\text{Ca,Na,U})_2(\text{Ti, Nb,Ta})_2\text{O}_6\text{Z}(\text{OH})$

Hardness = 3 - 5.5. Cleavage: None observed. Radioactive. Unaffected by any acids to any significant degree. Brownish coatings cannot be removed without specimen destruction. Quickly attacked by NH_4HF_2 . Samples from Bancroft may have [apatite](#) inclusions, which narrows the specimen's tolerance for mechanical and chemical treatments.

Discredited as a single species; now part of the pyrochlore group. Regardless, the older literature treats this as a valid species with a somewhat fixed formula. Use the information given here as an educated guess but actual sample properties may differ widely with compositional variations.

References

Mindat: <https://www.mindat.org/min-649.html>

Hardinger, S. (2025) Mineral Specimen Cleaning and Development for the Amateur, 339 p.

Sinkankas, J. (1972) Gemstone & Mineral Data Book, 346 p. Winchester Press, New York.