

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

Hardness: 3–5.5. Cleavage: None observed. Radioactive. Unaffected by any acids to any significant degree (but Rohner reports sensitivity to  $\text{H}_3\text{PO}_4$ ,  $\text{HNO}_3$ ,  $\text{HCl}$  or  $\text{H}_2\text{SO}_4$  whereas Duthaler reports sensitivity to  $\text{HCl}$ ,  $\text{H}_2\text{SO}_4$  or oxalic acid). Quickly attacked by  $\text{NH}_4\text{HF}_2$ . Brownish coatings cannot be removed without specimen destruction. Samples from Bancroft may have apatite inclusions, which narrows the specimen's tolerance for mechanical and chemical treatments. May be hygroscopic; store in sealed container with desiccant. See also pyrochlore group.

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>

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