## Yttrocrasite-(Y) $(Y, Th, Ca, U)(Ti, Fe^{3+})_2(O, OH)_6$



**Crystal Data:** Orthorhombic (probable); metamict. *Point Group:* n.d. Crystals rough, showing three pinacoids, a prism, and an orthodome.

**Physical Properties:** *Fracture:* Uneven, small conchoidal. Hardness = 5.5–6 D(meas.) = 4.80 D(calc.) = n.d. Radioactive.

**Optical Properties:** Opaque, transparent in thin fragments. *Color:* Black, brown where altered; in transmitted light, amber-yellow to light yellow. *Luster:* Bright pitchy to resinous. *Optical Class:* Isotropic; weakly anisotropic in part. $n$ = 2.12–2.15

**Cell Data:** *Space Group:* n.d. Z = n.d.

**X-ray Powder Pattern:** n.d.

**Chemistry:**

| | (1) | | (1) |
|---|---|---|---|
| $UO_3$ | 0.64 | $(Ce, La)_2O_3$ | 2.92 |
| $WO_3$ | 1.87 | $Fe_2O_3$ | 1.44 |
| $Nb_2O_5$ | trace | MnO | 0.13 |
| $Ta_2O_5$ | trace | PbO | 0.48 |
| $SiO_2$ | trace | MgO | trace |
| $TiO_2$ | 49.72 | CaO | 1.83 |
| $ThO_2$ | 8.75 | $H_2O^+$ | 4.36 |
| $UO_2$ | 1.98 | $H_2O^-$ | 0.10 |
| $(Y, Er)_2O_3$ | 25.67 | $CO_2$ | 0.68 |
| | | Total | 100.57 |

(1) Burnet Co., Texas, USA.

**Occurrence:** In granite pegmatite.

**Association:** n.d.

**Distribution:** In the USA, from Burnet Co., Texas, about five km east of Baringer Hill.

**Name:** From a dominance of YTTRium in the composition, and the Greek for *a mixing*, as there are many other elements in addition to yttrium.

**Type Material:** National Museum of Natural History, Washington, D.C., USA, 119841.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 793.