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Crystal Data: Orthorhombic; metamict. Point Group: $[2/m \ 2/m \ 2/m]$ [by analogy to aeschynite-(Y)]. Crystals, prismatic || [001], to 5.6 cm, showing {010}, {001}, {110}, {130}.

Physical Properties: Fracture: Conchoidal. Hardness = 5.5-6 VHN = 657-673 (100 g load). D(meas.) = 5.75-6.13, on impure material. D(calc.) = 6.39 Radioactive.

Optical Properties: Transparent. Color: Brownish black to black; in thin section, yellow-orange; in reflected light, dark gray with abundant white to dark red internal reflections. Streak: Pale yellowish brown. Luster: Resinous. Optical Class: Isotropic.
R: (470) 14.5, (546) 14.2, (589) 14.0, (650) 14.0

Cell Data: Space Group: [Pmnb.] a = 7.38 b = 10.97 c = 5.34 Z = [4]

X-ray Powder Pattern: Raposa pegmatite, Brazil; after heating in air at 1300 °C. 3.00 (10), 2.94 (10), 1.581 (7), 2.65 (5), 1.70 (5), 1.86 (4)

Chemistry:		(1)		(1)
	Nb_2O_5	18.7	Nd_2O_3	1.9
	Ta_2O_5	39.3	Sm_2O_3	0.6
	TiO_2	11.7	$\mathrm{Gd}_2\mathrm{O}_3$	0.6
	ThO_2	6.5	Dy_2O_3	0.4
	UO_2	0.4	$\mathrm{Er}_{2}\mathrm{O}_{3}$	0.4
	$Y_2 \overline{O}_3$	4.6	Yb_2O_3	0.7
	La_2O_3	1.3	Fe_2O_3	0.9
	Ce_2O_3	3.7	CaO	6.2
	Pr_2O_3	0.6	Total	98.5

(1) Raposa pegmatite, Brazil; by electron microprobe, corresponding to $(Ca_{0.47}Y_{0.17}Ce_{0.10}RE_{0.14}Th_{0.10}U_{0.01})_{\Sigma=0.99}(Ta_{0.75}Ti_{0.62}Nb_{0.60}Fe_{0.05})_{\Sigma=2.02}O_6$.

Polymorphism & Series: Forms a series with aeschynite-(Y).

Occurrence: In a pegmatite.

Association: Quartz, microcline, biotite, columbite, beryl.

Distribution: In the Raposa pegmatite, near São José do Sabugí, Paraíba, Brazil.

Name: For an *aeschynite* with TANTALum greater than titanium in the composition and with *yttrium* as the dominant rare-earth element.

Type Material: Department of Geosciences, University of Brasilia, Brasilia, Brazil, NT-52; Institute of Earth Sciences, Free University of Amsterdam, Amsterdam, The Netherlands, NT-52.

References: (1) Adusumilli, M.S., C. Kieft, and E.A.J. Burke (1974) Tantal-aeschynite, a new mineral of the aeschynite group from the Borborema region, north-eastern Brazil. Mineral. Mag., 39, 571–576. (2) (1974) Amer. Mineral., 59, 1331–1332 (abs. ref. 1).