In fine powder is soluble with difficulty in hydrochloric acid, more easily in sulphuric acid.

Analyses of amblygonite from Arnsdorf by Rammelsberg:—

Phosphoric acid . . .	48·00	47·15	—	—	—
Alumina	36·26	38·43	36·62	36·89	—
Lithia	6·33	7·03	—	—	—
Soda	5·48	3·29	—	—	—
Potash	—	0·43	—	—	—
Fluorine	—	—	—	—	8·11

Is found in crystalline masses, with tourmaline and topaz, in granite at Chursdorf and Arnsdorf near Penig in Saxony, and at Arendal in Norway.

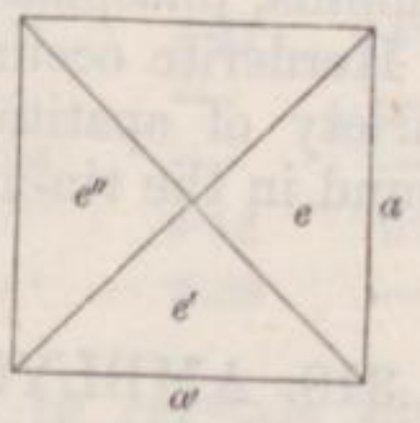
319. XENOTIME.—Phosphate of yttria; Phillips. Xenotime; Beudant. Pyramidaler Retin-Baryt; Mohs. Yttrerspath; Hausmann. Xenotim; Haidinger.

Pyramidal. $101,001 = 41° 0'$.

a 100, *e* 101.

aa'	90°	0′	*ee'*	55°	17′
ea	49	0	*ee''*	82	0

FIG. 494.



Combination. *ea*. Cleavage. *a*. Fracture splintery…uneven. Translucent… translucent on the edges. Lustre resinous. Brown and red of various shades. Streak light brown. Brittle. H = 4·5…5·0. G = 4·39…4·557.

Infusible before the blowpipe. With borax melts into a colourless bead, which becomes milky on cooling. Soluble with difficulty in salt of phosphorus, forming a colourless glass. With boracic acid and iron wire yields phosphide of iron. Insoluble in acids.

$\dot{Y}^3\dot{P}$, phosphoric acid 37·17, yttria 62·83.

Analysis of xenotime from Norway by Berzelius:—

Phosphoric acid with traces of hydrofluoric acid .	33·49
Yttria	62·58
Basic phosphate of protoxide of iron	3·93

According to Scheerer, xenotime from Norway contains:—

Phosphoric acid and silica	32
Yttria and red oxide of iron	68