

$\dot{R}\ddot{S}i + \dot{H}^2$ , where  $\dot{R}$  denotes the protoxides of cerium, lanthanum, and didymium.

Analyses of cererite *a* by Vauquelin, *b* by Hisinger, *c* by Hermann:—

	<i>a</i>	<i>b</i>	<i>c</i>
Carbonic acid . . . . .	—	—	4.62
Silica . . . . .	17	18.00	16.06
Protox. cerium . . . . .	67	68.59	26.55
Ox. lanthanum . . . . .	—	—	33.38
Alumina . . . . .	—	—	1.68
Red ox. iron . . . . .	2	2.00	3.53
Lime . . . . .	2	1.25	3.56
Ox. manganese . . . . .	—	—	0.27
Copper . . . . .	—	—	trace
Water . . . . .	12	9.60	9.10

The cererite analyzed by Hermann is supposed to have contained a mechanical mixture of carbonate of lime.

Was found in crystals and granular masses in St. Göran's mine at Riddarhytta in Sweden.

A mineral containing cerium (Hermann's ochroit) was found by Klaproth to consist of: silica 34.50, oxide of cerium 54.5, red oxide of iron 3.50, lime 1.25, water 5.00.

238. SMITHSONITE.—Siliceous oxide of zinc; Phillips. Zinc oxidé silicifere; Hauy. Prismatischer Zink-Baryt; Mohs. Zinkglas; Hausmann. Galmei; Haidinger.

Prismatic.  $011,010=58^{\circ}20'$ ;  $101,001=25^{\circ}46'.5$ ;  $110,100=51^{\circ}56'.5$ .

*a* 100, *b* 010, *c* 001, *e* 011, *u* 021, *w* 031, *h* 102, *l* 101, *f* 201, *v* 301, *q* 501, *r* 701, *m* 110, *g* 310, *k* 510, *s* 211, *t* 231, *x* 411, *z* 121, *n* 341. The forms *c, e, u, w, k, f, v, q, r, t, z, n* appear to be generally hemihedral with symmetric faces; *l, s* are also frequently hemihedral, *l* or *s* and the other combinations of hemihedral forms being on opposite sides of the zone *ab*.

<i>bc</i>	90° 0'	<i>hc</i>	13° 34'	<i>ma</i>	51° 57'
<i>ca</i>	90 0	<i>lc</i>	25 47	<i>mb</i>	38 3
<i>ab</i>	90 0	<i>fc</i>	44 0	<i>ga</i>	23 4
<i>ec</i>	31 40	<i>vc</i>	55 23	<i>ka</i>	14 20
<i>uc</i>	50 58	<i>qc</i>	67 30	<i>xa</i>	31 19
<i>we</i>	61 37	<i>rc</i>	73 31	<i>xb</i>	74 10