Tables and figures

Table 1. Cyclosilicates from group VIIIC07 [91N1].

Silicate	Composition
Koashvite	$Na_6(Ca,Mn)(Fe,Ti)Si_6O_{18}$
Imandrite	$Na_{12}Ca_3Fe_2Si_{12}O_{36}$
Kazakovite	$Na_6MnTiSi_6O_{18}$
Zirsinalite (Cyrsinalite)	$Na_6CaZrSi_6O_{18}$
Lovozerite	$(Na,Ca)_3(Zr,Ti)Si_6(O,OH)_{18}$
Litvinskite [01Y1]	$(Na,H_2O,□)_3(□,Na,Mn^{2+})Zr[Si_6O_{12}(OH)_3(OH,O)_3$
Combeite	$Na_4Ca_4Si_6O_{18}$
Tisinalite	$H_3Na_3(Mn,Ca,Fe)TiSi_6(O,OH)_{18} \cdot 2H_2O$
Shafranovskite	$(Na,K)_6(Mn,Fe)_3Si_9O_{24} \cdot 6H_2O$
Zakharovite	$Na_4Mn_5Si_{10}O_{24}(OH)_6 \cdot 6H_2O$
Traskite	$Ba_{12}Fe_2Ti_6Si_{12}O_{54}Cl_3 \cdot 7H_2O$
Lourenswalsite	$(K,Ba)_2Ti_4(Si,Al)_6O_{14}(OH)_{12}$
Jonesite	$(K,Na)_2Ba_4Ti_4Al_2Si_{10}O_{36} \cdot 6H_2O$
Tienshanite	$KNa_9Ba_6Ca_2Mn_6Ti_6B_{12}Si_{36}O_{123}(OH)_2$
Petarasite	$Na_5Zr_2Si_6O_{18}(Cl,OH) \cdot 2H_2O$
Ashcroftine-(Y)	$K_5Na_5(Y,Ca)_{12}Si_{28}O_{70}(OH)_2(CO_3)_8 \cdot 8H_2O$
$Na_4CaSi_3O_9$ [84F1]	
$Na_4SrSi_3O_9$ [91D1]	
$NaBa_3(Mn^{2+},Mn^{3+})_4[Si_4O_{10}(OH)_2][Si_2O_7]O_2F \cdot H_2O$ [92Y1]	

Table 2. Distribution of cations in the pseudocubic lovozerite block [90T1].

Composition	Silicate name	A	B	C	M	Symmetry of block
$H_5Na_3Zr[Si_6O_{18}]$	Lovozerite T	12Na	6H	2H	8Zr	$\bar{3}$ m
$Na_6MnTi[Si_6O_{18}]$	Kazakovite	12Na	6Na	2(Mn,□)	8Ti	$\bar{3}$ m
$Na_8Sn[Si_6O_{18}]$		12Na	6Na	2Na	8Sn	$\bar{3}$ m
$Na_6CaZr[Si_6O_{18}]$	Cyrsinalite	12Na	6Na	2(Ca,□)	8Zr	$\bar{3}$ m
$H_6Na_2Zr[Si_6O_{18}]$	Lovozerite M	8Na+4H	6H	2H	8Zr	2
$Na_8Sn[Si_6O_{18}]$		12Na	6Na	2Na	8Sn	$\bar{3}$ m
$Na_6(Ca,Mn)(Fe,Ti)[Si_6O_{18}]$	Koashvite	11Na+(Fe,Ti)	6Na	2(Ca,Mn,□)	6(Fe,Ti)+2Na	m
$Na_6Ca_{1.5}Fe[Si_6O_{18}]$	Imandrite	10Na+2Fe	6Na	2(Ca,□)	4Fe+4Na	2/m
$Na_5(Na,Mn)_3Mn[Si_6O_{18}]$		10(Na,Mn)+2Mn	6Na	2(Na,Mn)	4Mn+4(Na,Mn)	2/m
$Na_6Mn_3[Si_6O_{18}]$		10Na+2Mn	6Na	2Mn	4Mn+4Na	2/m
$Na_6Cd_3[Si_6O_{18}]$		8Na+4Cd	6Na	Cd+Na	8Cd	m
$Na_5(Na,Ca)_2(Nd,Ca)_2[Si_6O_{18}]$		8Na+4(Nd,Ca)	6Na	2(Ca,Na)	8(Nd,Ca)	2/m
$Na_6Ca_3[Si_6O_{18}]$	Combeite I	–	–	–	–	–
$Na_6Ca_3[Si_6O_{18}]$		12(Ca,Na)	6Na	2(Na,Ca)	8Ca	$\bar{3}$ m
$Na_4Ca_4[Si_6O_{18}]$	Combeite II	–	–	–	–	–
$Na_4Ca_4[Si_6O_{18}]$		8(Ca,Na)+4Ca	4Na+2□	2(Ca,Na)	8Ca	2

Table 3. Atomic sites and thermal factors.

a) Combeite, $Na_4Ca_4Si_6O_{18}$, having space group R $\bar{3}$ m [85O1].

Atom	*x*	*y*	*z*	B_{eq} [Å^2] · 10^3	Site symmetry	Position	Atoms / unit cell	
							Na	Ca
Si1	0.1502(1)	– x	0.5636(1)	7(1)	.m	18h		
O1	0.2533(6)	0.0131(6)	0.5147(3)	36(2)	1	36i[a)]		
O2	0.1161(1)	– x	0.6734(2)	34(1)	.m	18h		
O3	0.2373(1)	– x	0.5510(2)	33(1)	.m	18h		
M1	0	0	0.2485(1)	13(1)	3m	6c	4.23	1.77
M2	1/2	0	9	34(2)	.2/m	9e	8.75	-
M3	1/2	0	½	17(1)	.2/m	9d	4.51	4.49
M4	0	0	0	10(1)	3m	3a	-	3.0

[a)] Statistically occupied by 18 oxygen atoms.

b) Combeite, $Na_4Ca_4Si_6O_{18}$, having space group $P3_221$ [86O1].

Atom	*x*	*y*	*z*	B_{eq} [Å^2] · 10^3	Site symmetry	Position	Atoms / unit cell	
							Na	Ca
Si1	0.1986(1)	0.1526(1)	0.7780(1)	6(1)	1	6c		
Si2	0.4996(1)	0.3234(1)	0.8958(1)	7(1)	1	6c		
Si3	0.6243(1)	0.1845(1)	0.7635(1)	6(1)	1	6c		
O1	0.1671(3)	0	5/6	18(1)	.2.	3b		
O2	0.5555(3)	0	5/6	20(1)	.2.	3b		
O3	0.3442(2)	0.2842(2)	0.8382(1)	11(1)	1	6c		
O4	0.5849(2)	0.2643(2)	0.8199(2)	13(1)	1	6c		
O5	0.2468(2)	0.1535(2)	0.6622(1)	14(1)	1	6c		
O6	0.4782(2)	0.2472(2)	0.0032(1)	15(1)	1	6c		
O7	0.5513(2)	0.1104(3)	0.6540(1)	17(1)	1	6c		
O8	0.0652(2)	0.1853(2)	0.7949(1)	10(1)	1	6c		
O9	0.5965(3)	0.4991(2)	0.8880(1)	17(1)	1	6c		
O10	0.7990(2)	0.2184(2)	0.7763(1)	14(1)	1	6c		
M1	0.3086(1)	0.9830(1)	0.5892(1)	7(1)	1	6c	1.77(6)	1.23(6)
M1’	0.2821(7)	0.9704(5)	0.6151(5)	33(3)	1	6c	1.77(6)	1.23(6)
M21	0.5041(2)	0.3380(2)	0.6642(1)	21(1)	1	6c	6.0	-
M31	0.5262(1)	0.3704(1)	0.1558(1)	20(1)	1	6c	2.46(6)	3.54(6)
M32	0.8203(1)	0	5/6	10(1)	.2.	3b	-	3.0
M4	0.3039(1)	0	1/3	7(1)	.2.	3a	-	3.0
					Total		12.0	12.0

Table 3 (cont.)

c) Traskite [16] having hexagonal-type lattice [76M1].

Atom	*x*	*y*	*z*	Multiplicity	Atom	*x*	*y*	*z*	Multiplicity
Ba1	–0.2207	0.2207	0.243	6	O6	0.571	–0.571	0	3
Ba2	0.4222	–0.4222	0.500	3	O7	0.472	0.095	0.179	12
Ba3	0.3515	0.3618	0	6	O8	0.387	–0.387	0.136	6
Ba4	0.5694	–0.5694	0.500	3	O9	0.447	–0.447	0	3
Ba5	0.2034	–0.2034	0.238	6	O10	0.377	0.466	0.185	12
A	2/3	1/3	0.271	2	O11	0.617	–0.617	0.172	6
B	1/3	2/3	0.240	2	Cl1	0.185	–0.185	0	3
C	1/3	2/3	0	1	Cl2	0.791	–0.791	0	3
D	0.4007	0.4062	0.297	12	OH1	0.289	0.302	0.214	12
Si1	0.569	–0.569	0.139	6	OH2	0.285	–0.285	0.388	6
Si2	0.440	–0.440	0.128	6	OH3	0.715	–0.715	0.382	6
Si3	0.092	0.358	0.500	6	(O,OH)4	0.509	–0.509	0.361	6
Si4	0.736	0.098	0.500	6	$(H_2O)1$	0.878	–0.878	0.246	6
O1	0.318	0.418	0.395	12	$(H_2O)2$	0.088	–0.088	0	3
O2	0.272	0.267	0.500	6	$(H_2O)3$	0.864	–0.864	0	3
O3	0.833	–0.833	0.500	3	$(H_2O)4$	0	0	0.500	1
O4	0.169	–0.169	0.500	3	$(H_2O)5$	0	0	0	1
O5	0.403	0.311	0.385	12					

d) Petarasite [22] having monoclinic-type structure, space group $P2_1/m$ [80G1].

Atom	*x*	*y*	*z*	Occupancy
Na1	0.53203(26)	0.11999(18)	0.94377(40)	
Na2	0.96816(26)	0.11801(17)	0.04734(36)	
Na3	0.75350(52)	0.25000	0.53730(128)	Na-0.80; Ca-0.20; Cl-0.75
Zr	0.75341(4)	0.01483(3)	0.50974(6)	
Si1	0.04177(11)	0.14185(9)	0.59651(18)	
Si2	0.25281(13)	0.05076(8)	0.99330(18)	
Si3	0.46055(11)	0.14000(8)	0.39881(18)	
O1	0.05903(47)	0.25000	0.54621(72)	
O2	0.89046(32)	0.12341(23)	0.57443(54)	
O3	0.09220(30)	0.07970(22)	0.44176(46)	
O4	0.13872(35)	0.12679(26)	0.85457(48)	
O5	0.80161(31)	0.00514(24)	0.84919(46)	
O6	0.70604(32)	0.01230(25)	0.17083(45)	
O7	0.38504(34)	0.11045(25)	0.14028(48)	
O8	0.61709(30)	0.12247(23)	0.46523(52)	
O9	0.43210(47)	0.25000	0.41461(78)	
O10	0.39821(31)	0.08351(23)	0.54458(48)	
$W1(H_2O)$	0.10237(77)	0.25000	0.16018(107)	
$W2(H_2O)$	0.39241(63)	0.25000	0.82389(92)	
Cl	0.75124(32)	0.25000	0.00521(48)	
OH1	0.86880(360)	0.25000	–0.02220(564)	0.25
OH2	0.70151(644)	0.25000	0.11946(972)	0.12

Table 3 (cont.)

e) Ashcroftine[24] with average tetragonal structure [87M1].

Atom	Occupancy	Multiplicity	*x*	*y*	*z*
a) Healthy part					
Si1	1.00	32	0.2414(1)	0.1510(1)	0.4128(2)
Si2	1.00	32	0.2697(2)	0.0635(1)	0.2945(2)
Si3	1.00	32	0.2188(2)	0.0630(1)	0.1339(2)
O1	1.00	32	0.2371(4)	0.0935(4)	0.3644(5)
O2	1.00	32	0.2235(4)	0.0619(4)	0.2264(5)
O3	1.00	32	0.3018(3)	0.1780(4)	0.4034(5)
O4	1.00	32	0.2682(4)	0.0970(4)	0.0958(5)
O5	1.00	32	0.3247(4)	0.0958(4)	0.2695(5)
O6	1.00	32	0.1595(4)	0.0875(5)	0.1160(8)
O7	1.00	16	0.1912(4)	0.1912	0.3848(6)
O8	1.00	16	0.2297(6)	0.1322(5)	1/2
O9	1.00	16	0.2807(6)	0	0.3205(8)
O10	1.00	16	0.2200(7)	0	0.1033(8)
C1	1.00	16	0.4002(9)	0	0.1582(15)
O11	1.00	32	0.4261(5)	0.0469(5)	0.1713(7)
O12	1.00	16	0.3529(7)	0	0.1315(10)
C2	1.00	16	0.3709(11)	0.0923(10)	1/2
O13	1.00	32	0.3596(5)	0.0693(4)	0.4353(5)
O14	1.00	16	0.3932(6)	0.1411(6)	1/2
OH1	1.00	8	0.2473(5)	0.2473	1/2
OW1	1.00	16	0.1264(7)	0.1264	0.2782(9)
OW2	1.00	4	½	0	0
Y1[a]	1.00	32	0.3556(1)	0.1152(1)	0.1468(1)
Y2[a]	1.00	16	0.2679(1)	0.1618(1)	0
K1	1.00	8	0.2704(5)	0	1/2
K2	1.00	8	0.3057(4)	0	0
Na1	1.00	4	½	0	1/4
b) Pathological part					
T1D	Si 0.38	16	0.1336(4)	0.1336	0.0622(8)
T2D	Si 0.39	16	0.0986(5)	0.0986	0.0905(11)
K1D	0.30	16	0.2158(10)	0.2158	0.2057(21)
Na1D	0.45	16	0.4181(10)	0	0.3924(15)
Na2D	0.28	16	0.3900(17)	0	0.3585(25)
Na3D	0.42	4	0	0	0
ϕ 1D OH^-	0.49	16	0.1859(9)	0.1859	0.0772(21)
ϕ 2D OH^-	0.30	16	0.0532(10)	0.0532	0.1270(26)
ϕ 3D H_2O	0.13	16	0.1441(37)	0.1086(41)	0
ϕ 4D O^{2-}	0.54	8	0.0983(12)	0.0983	0
ϕ 5D H_2O	0.36	8	0.1036(29)	0	0
ϕ 6D OH^-	0.50	8	0.1733(15)	0.1733	0

[a] Were refined only Y.

[16), 22), 24)] For composition see Table 4

Table 4. Crystal structures and lattice parameters at RT.

Silicate	Space group	Lattice parameters				Refs.
		a [Å]	*b* [Å]	*c* [Å]	α, β, γ	
Koashvite[1)]	Pmnb	10.169	20.899	7.335		80C3
Imandrite[2)]	Pmnn	10.331	10.546	7.426		80C2
Imandrite[2)]	Pnnm or Pnn2	7.426(4)	10.546(1)	10.331(1)		79K1
Kazakovite[3)]	R $\bar{3}$ m	10.174		13.053		79V1
Kazakovite[4)]	R $\bar{3}$ m	10.18(4)		13.06(5)		74K1
Kazakovite[4)]	R $\bar{3}$ m	7.30(3)			$\alpha = 88°15'$	82K2
Zirsinalite (Cyrsinalite)[5)]	R $\bar{3}$ c	10.290		26.310		80P1
Lovozerite M[6)]	A2	7.33	10.48	10.20	$\beta = 92.30°$	60I1
Lovozerite T[7)]	R $\bar{3}$ m	10.174		13.053		75C1
Lovozerite[8)]	R $\bar{3}$ m	10.18		13.10		73K1
$Na_6Mn_3[Si_6O_{18}]$	Pmnn	10.354	10.251	7.374		76P1
$Na_6Cd_3[Si_6O_{18}]$	$Pm2_1n$	10.40(5)	10.40(5)	7.45(3)		68S1
$Na_6Ca_3[Si_6O_{18}]$	R $\bar{3}$ m	10.500(2)		13.148(1)		85O1
$Na_6CaZr[Si_6O_{18}]$	R $\bar{3}$ c	10.290		26.310		80P1
$Na_8Sn[Si_6O_{18}]$	R $\bar{3}$ m	10.189		13.186		80S1
$Na_8Sn[Si_6O_{18}]$	A2/m	7.340	10.576	10.183	$\beta = 92.90°$	80Z1
$Na_4Ca_4[Si_6O_{18}]$	$P3_221$	10.464		13.168		86O1
$Na_4CaSi_3O_9$	Pa3	15.087(2)				84F1
$Na_4SrSi_3O_9$	C2	10.706(2)	10.866(2)	6.509(1)	$\beta = 144.14(2)°$	91D1
$Na_5(Na,Mn)_3Mn[Si_6O_{18}]$	$Pm2_1n$	10.40	10.40	7.45		73O1
$Na_5(Na,Ca)_2(Nd,Ca)_2[Si_6O_{18}]$[9)]	$P2_1/b$	7.501(5)	14.926(5)	7.446(5)	$\gamma = 91.79(3)°$	89T1
Combeite[10)]	R3m, R32 or R $\bar{3}$ m	10.43(3)		13.14(3)		57S1
Combeite[11)]	R $\bar{3}$ m	10.429(2)		13.149(3)		87F1
Combeite[12)]	$P3_121$	10.464(2)		13.176(3)		87F1
Tisinalite[13)]	R $\bar{3}$ m	10.14		13.08		80K1
Shafranovskite[14)]	P31m or Pmm1	14.58		21.01		82K2
Zakharovite[15)]	P31m or P3m1	14.58		37.71		82K1
Traskite (natural)		17.88		12.30		65A2
Traskite[16)]	P$\bar{6}$m2	17.89(1)		12.33(1)		76M1
$NaBa_3(Mn^{2+},Mn^{3+})_4[Si_4O_{10}(OH)_2][Si_2O_7]O_2F \cdot H_2O$[17)]	Pnma	23.42(1)	12.266(8)	7.181(5)		92Y1
Lourenswalsite[18)]	R $\bar{3}$ m	5.244(2)		20.49(3)		87A1
Tienshanite[19)]	P6/m (probable)	16.755(10)		10.435(7)		67D1
Jonesite[20)]	$B22_12$($C222_1$ in standard setting)	13.730(5)	25.904(5)	10.608(3)		77W1
Jonesite[21)]	$P2_1/m$	10.618(2)	25.918(4)	8.6945(4)	$\beta = 127.633(3)^0$	04K1
Petarasite[22)]	$P2_1/m$	10.7956(8)	14.4928(6)	6.6229(6)	$\beta = 113.214(5)°$	80G1
Petarasite[22)]	$P2_1/m$ or $P2_1$	10.791(4)	14.505(5)	6.626(2)	$\beta = 113.21(3)°$	80C1
Litvinskite[23)]	Cm	10.589(7)	10.217(8)	7.355(5)	$\beta = 92.91(5)°$	01Y1
Ashcroftine[24)]	I4/m2/m2/m (average)	23.994(6)		17.512(5)		87M1
Ashcroftine[25)]		24.039(6)		17.538(8)		73M1

1) $Na_6(Ca,Mn)(Fe,Ti)[Si_6O_{18}]$;
2) $Na_6Ca_{1.5}Fe[Si_6O_{18}]$;
3) $Na_6MnTi[Si_6O_{18}]$;
4) $(Na_{5.51}K_{0.07}Ca_{0.05}Mg_{0.02}Mn_{0.42})(Ti_{0.64}Fe_{0.19}Al_{0.11}Nb_{0.07})(Si_{5.84}P_{0.07})H_{2.73}O_{18.39}$;
5) $Na_6CaZr[Si_6O_{18}]$;
6) $H_6Na_2Zr[Si_6O_{18}]$;
7) $H_5Na_3Zr[Si_6O_{18}]$;
8) $(Na,Ca)_3(Zr,Ti)Si_6(O,OH)_{18}$;

9) $Na_5(Na_{0.5+x}Ca_{0.5-x})_2(Nd_XCa_{1-x})_2[Si_6O_{18}]$ with x = 0.158(1);
10) Composition: SiO_2-49.78; TiO_2-0.32; ZrO_2-0.44; Al_2O_3-2.45; Fe_2O_3-1.86; FeO-0.54; MnO-0.58; MgO-0.41; CaO-22.68; BaO-0.09; Na_2O-16.14; K_2O-1.18; P_2O_5-0.02; F-1.87; Cl-0.30; SO_3-0.19; H_2O^--0.42; H_2O^+-1.39;
11) $Na_{2.4}Ca_{1.5}(Fe,Mn,Mg,Zn)_{0.3}Si_3O_9$;
12) $Na_{2.2}Ca_{1.9}Si_3O_9$ with traces of Mn and Fe;
13) $Na_{3.00}H_{3.00}(Mn_{0.54}Ca_{0.30}Fe_{0.16})(Ti_{0.72}Fe_{0.28})Si_6[O_{17.40}(OH)_{0.60}] \cdot 2.23H_2O$;
14) $Na_{3.63}K_{1.82}Ca_{0.12}Mn^{2+}_{0.29}(Mn^{2+}_{1.95}Fe^{2+}_{0.93}Mg_{0.09}Ti_{0.02}Fe^{3+}_{0.01})(Si_{8.68}Fe^{3+}_{0.24}Al_{0.01})O_{24} \cdot 5.96H_2O$;
15) $(Na_{3.16}Ca_{0.46}K_{0.11}Sr_{0.01})(Mn^{2+}_{4.45}Fe^{2+}_{0.42}Mg_{0.02})Si_{10}O_{24}(OH_{5.60}O_{0.40})\cdot 5.59H_2O$;
16) Composition [wt %]: SiO_2-27.30; Al_2O_3-0.45; TiO_2-5.71; FeO-4.46; MnO-1.35; MgO-0.32; CaO-0.89; K_2O-0.05; BaO-53.50; SrO-0.35; Cl-3.50; H_2O-2.52;
17) Composition [wt %]: SiO_2-32.09; MnO-13.22; Mn_2O_3-10.84; Na_2O-3.12; BaO-36.73; H_2O-2.40 (only main chemical components);
18) $(K_{1.16}Ba_{0.72})(Ti_{3.38}Mg_{0.37}Ca_{0.14}Fe_{0.13})(Si_{4.41}Al_{0.99}Fe_{0.60})[O_{19.94}(H_2O)_{6.06}]$;
19) $(Na,Ca)_{1.87}(Ba,K)_{1.34}(Mn,Fe)_{1.01}(Ti,Nb,Ta)_{1.00}B_{1.78}Si_{5.95}O_{20}$;
20) natural sample;
21) $Ba_2(K,Na)[Ti_2(Si_5Al)O_{18}(H_2O)](H_2O)_n$;
22) $Na_{4.69}Ca_{0.13}K_{0.05})(Zr_{2.01}Ti_{0.01})Si_6O_{18}[(OH)_{0.60}Cl_{0.48}] \cdot 3.01H_2O$;
23) $[Na_{1.54}K_{0.01}(H_2O)_{0.45}]Na_{0.78}(Na_{0.19}Mn^{2+}_{0.14}Ca_{0.01}Fe^{2+}_{0.01})(Zr_{0.96}Ti_{0.01}Hf_{0.01})(Si_6O_{12}(OH)_3)\{(OH)_{2.24}O_{0.76}\}$;
24) $K_{10.40}Na_{8.68}Y_{20.92}Ca_{3.08}Si_{54.16}O_{130.10}(OH)_{12.32}(CO_3)_{16.00}(H_2O)_{12.48}$;
25) $K_{10.00}Na_{10.80}Y_{20.56}Ca_{3.44}Si_{51.84}B_{4.16}O_{13.30}(OH)_{11.20}(CO_3)_{16.0}(H_2O)_{14.52}$;
26) Composition [wt %]: Na_2O-0.14; CaO-0.50; BaO-48.2; FeO-5.77; MgO-0.16; MnO-1.28; TiO_2-7.12; SiO_2-26.1; Cl-4.23; F-0.5;
27) $(Ba_{25.40}Ca_{1.17}Sr_{0.26}K_{0.08})(Fe_{4.45}Mn_{1.46}Mg_{0.57})Ti_{5.33}(Si_{35.17}Al_{0.49})O_{88.78}(OH_{43.09}Cl_{7.51}F_{1.60})$.

Table 5. Refractive indices.

Silicate	n_α	n_β	n_γ	$2V$			Refs.
				exp.	calc		
Imandrite[2)]	1.605	1.608	1.612	75°		biaxial positive	79K1
Kazakovite[4)]	1.648(ω)		1.625(ε)			uniaxial negative	74K1
Combeite[10)]	1.598(2)(ω)		1.598(2)(ε)			uniaxial negative	57S1
Tisinalite[13)]	1.624(ω)		1.590…1.592(ε)			uniaxial negative	80K1
Shafranovskite[14)]	1.587(2)(ω)		1.570(2)(ε)			uniaxial negative	82K2
Zakharovite[15)]	1.565(2)(ω)		1.535(2)(ε)			uniaxial negative	82K1
Lourenswalsite[18)]	1.815(2)	1.840(2)	1.840(2)	≅ 0		biaxial negative	87A1
Tienshanite[19)]	1.666(ω)		1.653(ε)			uniaxial negative	67D1
Petarasite[22)]	1.596(1)	1.598(1)	1.632(1)	29°	27.7°		80C1
Ashcroftine (natural)	1.535	1.537	1.545				24G1
Traskite[27)]	1.714(ω)		1.702(ε)			uniaxial negative	65A1, 65A3

For footnotes see Table 4.