

## Index of substances for Volume III/2712

The Index of substances consists of two parts:

- A) Alphabetical index of element systems
- B) Alphabetical index of mineral names

### 1. Arrangement for A):

The substances are arranged alphabetically according to their "element system", i.e. the system of their alphabetically ordered elements, without consideration of the number of each element, and without consideration of water (first column of the Index).

Examples:

$\text{Ba}_2\text{Ti}_{1+x}\text{Si}_{2-x}\text{O}_8$  is listed under Ba–O–Si–Ti  
 $\text{Ca}_3\text{Si}_3\text{O}_8(\text{OH})_2$  under Ca–H–O–Si  
 $\text{Sr}_2\text{CuSi}_2\text{O}_7$  under Cu–O–Si–Sr  
 $\text{Cu}_2\text{Pb}_2\text{Si}_5\text{O}_{14} \cdot 14\text{H}_2\text{O}$  under Cu–O–Pb–Si  
 $\text{Y}_2\text{O}_3\text{--SiO}_2\text{--AlN}$  under Al–N–O–Si–Y  
 $\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}(\text{OH})$ :  $\text{Cr}^{3+}$  under Al–Ca–Cr–H–O–Si  
 $(\text{Na}, \square)_6\text{Nb}_4(\text{Si}_4\text{O}_{12})_2(\text{O}, \text{OH})_4 \cdot n\text{H}_2\text{O}$  under H–Na–Nb–O–Si

Within one "element system", the compounds are arranged firstly alphabetically according to the chemical formula as given in the text/tables/figures, secondly according to the increasing number of the first (second, third, ...) atom of the chemical formula.

Examples for the arrangement of substances within a special "element system":

System	Ca–Co–O–Si	$\text{CaCoSiO}_4$	Sytem	Ca–Fe–H–Mn–O–Si	...
		$\text{CaCo}_2\text{Si}_2\text{O}_7$			$\text{CaFe}_{1.81}\text{Mn}_{0.19}\text{Si}_2\text{O}_7\text{O}(\text{OH})$
		$\text{Ca}_2\text{CoSi}_2\text{O}_7$			$\text{Fe}_{36.08}\text{Si}_{16.01}\text{Ca}_{9.33}\text{Mn}_{3.35}(\text{O}+\text{H})_{35.23}$
					$\text{Fe}_{38.37}\text{Si}_{15.97}\text{Ca}_{9.40}\text{Mn}_{0.89}(\text{O}+\text{H})_{35.36}$

In doubt the reader is recommended to check all compounds belonging to the respective "element system". The user is advised to look also for the name of compound in the "Alphabetical index of mineral names", as in many cases only the formula or the name of a special substance is given in the data part.

The chemical formulae of the substances are generally given as listed in the respective text, tables and figures, or in one of the different formulations used in text, tables and figures (second column).

In some cases more general formulations were used for groups of substances like e.g.  $\text{A}_2\text{Al}_2\text{SiO}_7$ ,  $\text{R}_2\text{Si}_2\text{O}_7$  or  $\text{X}_2\text{TSi}_2\text{O}_7$ . These formulations were sometimes also considered in the Index (under the systems A–Al–O–Si, O–R–Si or O–Si–T–X), and the meaning of the A, R, T and X was added where possible.

Column 3 gives the page number on which data of the individual substances can be found.

### 2. Arrangement for B):

This index contains in alphabetical order only those mineral names of silicates which are explicitly mentioned in the text, tables or figures (first column of index), and the page numbers (second column). This index should be used especially in case of unknown chemical formula.

## A) Alphabetical index of element systems

Element system	Chemical formula	Page
<b>A –Al–O –Si</b>	$A_2Al_2SiO_7$ (A = Ca, Sr)	36
<b>A –B –C –D –H –M –O –T</b>	$A_4B_4C_4D_2M_8(T_4O_{12})_4(OH_2O)_8 \cdot nH_2O$ (T = Si; M = Ti, Nb; D = $Mn^{2+}$ , $Fe^{2+}$ , $Mg^{2+}$ , $Zn^{2+}$ etc; A = Na; B = K, Na; C = Ba, K)	162, 166
<b>A –B –C –H –M –O –Si</b>	$A_2B_2C_2M_4(Si_4O_{12})_2(O,OH)_4 \cdot nH_2O$	167
<b>A –B –C –O –Si–Ti</b>	$A_4^{3+}B^{2+}C_2^{3+}Ti^{4+}(Si_2O_7)_2O_8$ (A = R, Th, Ca, Sr, Na, K; B = $Fe^{2+}$ , Mg, Mn, Ca; C = Ti, Mg, Mn, $Fe^{3+}$ , $Fe^{2+}$ , Al)	210
<b>A –F –H –M –O –Si</b>	$A_2M_3(SiO_4)(Si_2O_7)(O,F)(OH)$ (A = Ca, Sr, rare-earth (R) etc; M = $Al^{3+}$ , $Fe^{3+}$ , $Mn^{3+}$ , $Fe^{2+}$ , $Mg^{2+}$ , etc.)	207
<b>A –H –M –O –Si</b>	$A_6M_4(Si_4O_{12})_2(O,OH)_4 \cdot nH_2O$	167
	$A_{12-x}\square_2M_8(Si_4O_{12})_4(O,OH)_8 \cdot nH_2O$	167
<b>A –H –M –O –T</b>	$A_6M_4(T_4O_{12})_2(O,OH)_4 \cdot nH_2O$ (T = Si; A = Na, $\square$ ; M = Nb; Ti)	162, 166
<b>A –O –Si</b>	$A_2Si_2O_7$ (A = Sc, In)	11
<b>Ag–O –Si</b>	$Ag_6Si_2O_7$	1, 6, 8, 14
<b>Al–As–Ca–Fe–H –Mg–Mn–O –Si–V</b>	$Mn_2^{2+}(Mn^{2+},Ca)_2(AlOH)_4[(Mg,Al,Fe^{3+})OH]_2-(As,V)O_4Si_3O_{10}(SiO_4)_2$	232
<b>Al–As–H –Mg–Mn–O –Si</b>	$Mg_{1+x}Mn_4Al_{5-x}(AsO_4)(SiO_4)_2(Si_3O_{10})(OH)_6$	221
<b>Al–B –Ca–Fe–H –Mg–O –Si–Ti</b>	$Ca_{19}Fe(Al,Mg,Fe,Ti)_{13}(B,Al)_5Si_8O_{68}(O,OH)_{10}$	221
<b>Al–Ba–Ca–Cl–F –Fe–H –K –Mg–Mn–Na–O –Si–Sr–Ti</b>	$(Na_{4.96}K_{1.06})(Ba_{2.10}Sr_{0.23}Ca_{0.49}Mn_{0.18})-(Mn_{0.22}Mg_{0.40}Fe_{0.57}^{2+}Fe_{0.55}^{3+}Ti_{5.35})-(Al_{0.35}Si_{7.65})O_{32}(O_{1.14}OH_{1.24}F_{1.35}Cl_{0.27})$	175
<b>Al–Ba–Ca–Cl–Fe–H –K –Mg–Mn–Na–Nb–O –Si–Ti</b>	$(Ba_{0.933}Na_{0.075}K_{0.012}Ca_{0.019})(Mg_{0.059}Mn_{0.109}Fe_{1.563}^{2+}Nb_{0.030})Ti_{0.826}(Si_{1.881}Al_{0.026}Ti_{0.093})_2O_7O-(O_{0.042}(OH)_{0.875}Cl_{0.083})$	175
<b>Al–Ba–Ca–Cs–Fe–Mg–Mn–Na–Nb–O –Si–Sn–Ti</b>	$(Ba_{0.96}Na_{0.03}Ca_{0.01}Cs_{0.002})(Mn_{1.70}Fe_{0.17}Mg_{0.05}Al_{0.08})(Ti_{0.93}Sn_{0.07}Nb_{0.015})(Si_{1.97}Al_{0.02})O_7O_{20} \cdot 0.25H_2O$	175
<b>Al–Ba–Ca–F –Fe–H –K –Mg–Mn–Na–O –S –Si–Ti</b>	$(Ba_{3.69}K_{0.20}Ca_{0.16}Na_{0.03})(Ti_{2.96}Al_{0.06}Fe_{0.11}^{3+}Fe_{0.10}^{2+}Mg_{0.27}Mn_{0.19})Si_4O_{18}(OH,F)_{1.5} \cdot 1.15Na_2SO_4$ $Na_{2.33}Ca_{0.16}Mg_{0.27}Fe_{0.2}(Ba,K,Mn)_4(Ti,Al)_3-Si_4O_{24}(OH,F)_2 \cdot 1.15S$	198
<b>Al–Ba–Ca–Fe–H –K –Mg–Mn–Na–Nb–O –Si–Sr–Ti–Zn</b>	$(Ba_{0.92}K_{0.54}Ca_{0.26}Na_{0.24}Sr_{0.22})(Zn_{0.58}Mn_{0.15}Fe_{0.04}Mg_{0.01})(Ti_{2.97}Nb_{1.02})(Si_{7.89}Al_{0.11})O_{24}-[O_{2.01}(OH)_{1.99}] \cdot 7.39H_2O$ $(K_{1.93}Na_{0.52}Ca_{0.49}Ba_{0.35}Sr_{0.04})(Zn_{1.60}Mn_{0.24}Fe_{0.08}Mg_{0.06})(Nb_{4.79}Ti_{3.17})[(Si_{15.79}Al_{0.21})O_{48}] - [O_{4.59}(OH)_{3.41}] \cdot 11.97H_2O$	175 174

Element system	Chemical formula	Page
<b>Al–Ba–Ca–Fe–H–K–Mg–Mn–Na–Nb–O–Si–Sr–Ti–Zn</b> (cont.)	$(K_{3.00}Ca_{0.97}Na_{0.39}Ba_{0.32}Sr_{0.05})(Zn_{1.14}Mn_{0.73}Fe_{0.19}-Mg_{0.02})(Ti_{5.50}Nb_{2.35})[(Si_{15.79}Al_{0.21})O_{48}[(OH)_{4.07}-O_{3.93}] \cdot 17H_2O$	174
	$(Na_{0.68}Ca_{0.32})(Sr_{0.53}Na_{0.12})(K_{0.63}Ba_{0.29})(Zn_{0.75}-Fe_{0.04}Mn_{0.02}Mg_{0.01})(Ti_{2.88}Nb_{1.15})(Si_{7.96}Al_{0.04})O_{24}-[O_{2.58}(OH)_{1.42}] \cdot 6.80H_2O$	175
<b>Al–Ba–Ca–Fe–H–K–Mg–Mn–Na–Nb–O–Si–Sr–Ti–Zn–Zr</b>	$(Ca_{2.00}Na_{0.14})(K_{3.24}Ba_{0.16}Sr_{0.12})-(Mn_{1.63}^{2+}Fe_{0.20}Mg_{0.10}Zn_{0.04})(Ti_{7.14}Nb_{0.90}Zr_{0.02})-[(Si_{15.92}Al_{0.08})O_{48}][O_{4.94}(OH)_{3.06}] \cdot 9.7H_2O$	175
<b>Al–Ba–Ca–Fe–H–K–Mg–Mn–Na–O–Si–Sr–Ti</b>	$(Na_{0.94}Ca_{0.06})(Na_{1.66}Mn_{0.13}Mg_{0.07}Al_{0.07})-(Ba_{1.33}Na_{0.44}K_{0.17}Sr_{0.06})(Ti_{0.94}Fe_{0.06}^{3+})Ti_2O_2-[Si_{4.05}O_{14}][(OH)_{1.72}Fe_{0.52}O_{0.30}]$	175
<b>Al–Ba–Ca–Fe–H–K–Mg–Na–Nb–O–Si–Ta–Ti</b>	$(Na_{8.79}Ca_{0.1}K_{7.31}Ba_{2.90})(Ti_{15.39}(Nb,Ta)_{0.09}-Fe_{0.25}^{3+}Mg_{2.20})(Si_{31.67}Al_{0.33})O_{48}$ and $H_{49.4}^{+}$	174
<b>Al–Ba–Ca–Fe–H–K–Mn–Na–Nb–O–Si–Sr–Ti–Zn</b>	$(Na_{1.68}Ca_{1.28}K_{0.88}Ba_{0.04}Sr_{0.02})(Ca_{1.28}Mn_{0.01}Zn_{0.02})(Nb_{5.39}Ti_{2.55}Fe_{0.14}^{3+})(Si_{15.88}Al_{0.12})O_{48}-[O_{5.49}(OH)_{2.51}] \cdot 13.80H_2O$	175
	$\{(Na_{1.40}K_{1.11}(H_2O_{0.35}\square_{1.14})[Ba_{0.35}(H_2O)_{3.65}]\}-\{[Ca_{0.52}Sr_{0.40}(H_2O)_{2.60}\square_{0.48}][Ba_{0.19}(H_2O)_{3.81}]\}-\{[Sr_{0.28}(H_2O)_{3.72}][Ca_{0.84}\square_{3.16}]\}(Ca_{0.85}Mn_{0.05}-Fe_{0.01}Zn_{0.03}\square_{1.06})[Ti_{6.4}Nb_{1.60}](Si_{15.98}Al_{0.02}O_{48})-[O_{3.44}(OH)_{4.56}]$	174
<b>Al–Ba–Ca–Fe–H–K–Mn–Na–Nb–O–Si–Ti–Zn</b>	$(K_{2.27}Zn_{0.62}Ca_{0.47}Na_{0.41}Ba_{0.21})(Mn_{1.77}^{2+}Fe_{0.08}^{2+})-(Nb_{5.23}Ti_{2.76})(Si_{15.86}Al_{0.14}O_{48})[O_{6.03}(OH)_{1.97}] \cdot 12.79H_2O$	174
<b>Al–Ba–Ca–Fe–H–K–Na–O–Si–Ti</b>	$(Na_{2.16}K_{0.55})(Ba_{3.80}Ca_{0.19})(Ti_{5.08}Fe_{0.56}Al_{0.34})-(Si_{7.96}Al_{0.04})[(H_2O)_{7.12}O_{32.83}]$	175
<b>Al–Ba–Ca–Fe–K–Mg–Mn–Na–O–Si</b>	$(Ba_{0.85}K_{0.06}Ca_{0.03}Na_{0.01})(Fe_{1.75}Al_{0.08}Mn_{0.08}-Mg_{0.08})Si_{2.15}O_{7.24}$	175
<b>Al–Ba–Ca–H–K–Mn–Na–Nb–O–Si–Sr–Ti</b>	$(Ba_{0.46}Na_{0.37}K_{0.23}Sr_{0.12}Mn_{0.10}Ca_{0.06})(Ti_{1.40}-Nb_{0.55})(Si_{3.97}Al_{0.03}O_{12})(OH)_{1.58}O_{0.42} \cdot 3.7H_2O$	174
<b>Al–Ba–Ca–H–K–Mn–Na–Nb–O–Si–Ti</b>	$(K,Ba,Na,Ca,Mn)(Ti,Nb)(Si,Al)_2(O,OH)_7 \cdot 0.6H_2O$	175
<b>Al–Ba–Ca–K–Mg–Mn–Na–Nb–O–Si–Sr–Zn</b>	$(Ca_{3.01}Na_{0.31}Sr_{0.28}K_{0.14}Ba_{0.06})(Nb_{5.45}Al_{0.22}Mn_{0.22}-Zn_{0.07}Mg_{0.03})(Si_{5.00}O_{27.84}) \cdot 5.07H_2O$	150
<b>Al–Ba–Ca–Mn–Na–O–Pb–Si–Sr</b>	$Ba_{0.91}Sr_{1.81}Pb_{0.05}Ca_{0.04}Na_{0.02}Mn_{2.04}^{3+}-Al_{0.01}Si_{4.06}O_{14}$	175
<b>Al–Be–Ca–F–Na–O–Si</b>	$Ca_{1.37}Na_{0.63}Be(Si_{1.87}Al_{0.13})O_{6.25}F_{0.75}$	57
<b>Al–Be–Ca–H–Na–O–Si</b>	$(Ca_{1.69}Na_{0.19}(Be_{0.82}Al_{0.14})Si_{1.97}(O_{6.49}OH_{0.51}))$	57

Element system	Chemical formula	Page
<b>Al–Be–Ca–H–Na–O–Si</b> (cont.)	$(\text{Ca}, \text{Na})_2(\text{Be}, \text{Al})\text{Si}_2(\text{O}, \text{OH})_7$	39, 52
<b>Al–Be–Na–O–Si</b>	$\text{Na}_3\text{AlBeSi}_2\text{O}_8$	56
<b>Al–Ca–Ce–Dy–Fe–Ho–K–La–Mg–Mn–Na–Nd–O–Pr–Si–Sr–Tb–Th–Ti–Y–Yb</b>	$\text{Si}_{3.992}\text{Al}_{0.024}\text{Ti}_{2.616}\text{Fe}_{1.565}\text{Mn}_{0.460}\text{Mg}_{0.027}\text{Ca}_{0.459}\text{Sr}_{0.034}\text{Na}_{0.058}\text{K}_{0.020}\text{Th}_{0.169}\text{Y}_{0.007}\text{La}_{1.832}\text{Ce}_{1.503}\text{Pr}_{0.180}\text{Nd}_{0.114}\text{Tb}_{0.012}\text{Dy}_{0.010}\text{Ho}_{0.004}\text{Yb}_{0.004}\text{O}_{22}$	230
<b>Al–Ca–Ce–F–Fe–H–Gd–La–Mg–Nd–O–Pr–Si–Sm</b>	$(\text{Ca}_{0.91}\text{Ce}_{0.45}\text{La}_{0.20}\text{Nd}_{0.20}\text{Pr}_{0.09}\text{Sm}_{0.08}\text{Gd}_{0.06}) - (\text{Mg}_{1.81}\text{Fe}_{0.25})\text{Al}_{0.97}\text{Si}_{3.00}(\text{OH})_{1.25}\text{F}_{0.88}\text{O}_{10.99}$	230
<b>Al–Ca–Ce–F–Fe–H–La–Mg–Nd–O–Pr–Si–Ti</b>	$\text{Ca}_{1.05}(\text{Ce}_{0.57}\text{La}_{0.33}\text{Nd}_{0.07}\text{Pr}_{0.03})\text{Mg}_{0.93}\text{Fe}_{0.14}\text{Ti}_{0.06}\text{Al}_{1.91}\text{Si}_{2.94}\text{O}_{12}(\text{OH})_{0.94}\text{F}_{0.06}$	230
<b>Al–Ca–Ce–F–Fe–K–Mg–Na–Nb–O–Si–Th–Ti–Zr</b>	$\text{Ca}_{3.35}\text{Na}_{2.11}\text{K}_{0.06}\text{Ce}_{1.05}\text{Th}_{0.04}\text{Nb}_{0.33}\text{Zr}_{0.07}\text{Ti}_{0.52}\text{Fe}_{0.09}\text{Mg}_{0.08}\text{Al}_{0.09}(\text{Si}_2\text{O}_7)_2\text{OF}_3$	174
<b>Al–Ca–Ce–F–H–La–Mg–Nd–O–Si</b>	$\text{Ca}(\text{Ce}, \text{La}, \text{Nd})\text{Mg}_2\text{AlSi}_3\text{O}_{11}(\text{OH})\text{F}$	221
<b>Al–Ca–Ce–Fe–Gd–H–La–Mg–Mn–Nd–O–Pr–R–Si–Sm–Ti–Y</b>	$\text{Ce}_{1.622}\text{La}_{1.054}\text{Ca}_{0.398}\text{Pr}_{0.154}\text{Nd}_{0.359}\text{Sm}_{0.044}\text{Y}_{0.010}\text{Gd}_{0.024}\text{R}_{0.032}\text{Mn}_{0.118}\text{Fe}_{0.185}^{2+}\text{Fe}_{1.0}^{2+}(\text{Fe}_{0.064}^{2+}\text{Fe}_{1.657}^{3+}\text{Mg}_{0.082}\text{Ti}_{0.199})\text{Ti}_{2.0}[(\text{Si}_{3.842}\text{Al}_{0.130}\text{Ti}_{0.028})\text{O}_{14}]\text{O}_{7.634}\text{OH}_{0.366}$ (R = rare earth element)	232
<b>Al–Ca–Ce–Fe–H–La–Mg–Mn–Nd–O–Si–Ti–Y</b>	$(\text{Ca}_{1.20}\text{Y}_{0.02}\text{La}_{0.23}\text{Ce}_{0.48}\text{Nd}_{0.07})(\text{Al}_{1.65}\text{Fe}_{1.20}\text{Ti}_{0.06}\text{Mn}_{0.04}\text{Mg}_{0.04})\text{Si}_3\text{O}_{13}\text{H}$	230
<b>Al–Ca–Ce–Fe–H–La–O–Si</b>	$\text{Ca}(\text{Ce}, \text{La})(\text{Al}, \text{Fe})_3(\text{SiO}_4)_3(\text{OH})$	221
<b>Al–Ca–Ce–Fe–H–La–O–Si–Y</b>	$\text{Ca}(\text{Y}, \text{La}, \text{Ce})(\text{Al}, \text{Fe})_3(\text{SiO}_4)_3(\text{OH})$	221
<b>Al–Ca–Ce–Fe–K–La–Mg–Mn–Na–Nd–O–Pr–Si–Sr–Tb–Th–Ti–Y–Yb</b>	$\text{Si}_{3.975}\text{Al}_{0.017}\text{Ti}_{2.569}\text{Fe}_{1.683}\text{Mn}_{0.171}\text{Mg}_{0.147}\text{Ca}_{0.686}\text{Sr}_{0.037}\text{Na}_{0.065}\text{K}_{0.017}\text{Th}_{0.074}\text{Y}_{0.031}\text{La}_{1.754}\text{Ce}_{1.411}\text{Pr}_{0.180}\text{Nd}_{0.166}\text{Tb}_{0.015}\text{Yb}_{0.004}\text{O}_{22}$	230
<b>Al–Ca–Ce–Fe–La–Mg–Mn–Na–Nd–O–Pr–Si–Sr–Tb–Th–Ti–Y–Yb</b>	$\text{Si}_{4.022}\text{Al}_{0.088}\text{Ti}_{2.807}\text{Fe}_{1.331}\text{Mn}_{0.281}\text{Mg}_{0.116}\text{Ca}_{0.823}\text{Sr}_{0.145}\text{Na}_{0.178}\text{Th}_{0.030}\text{Y}_{0.042}\text{La}_{1.511}\text{Ce}_{1.302}\text{Pr}_{0.153}\text{Nd}_{0.157}\text{Tb}_{0.009}\text{Yb}_{0.006}\text{O}_{22}$	231
<b>Al–Ca–Ce–Fe–O–Si–Ti</b>	$(\text{Ce}_3\text{Ca})\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Ca–Ce–H–Mg–O–Si</b>	$\text{CaCeMgAl}_2\text{Si}_3\text{O}_{12}(\text{OH})$	209, 221
<b>Al–Ca–Cl–Cr–Cu–Fe–K–Mg–Mn–Na–O–Si–Ti</b>	$\text{Si}_{18.00}\text{Ti}_{0.214}\text{Al}_{10.535}\text{Cr}_{0.015}\text{Fe}_{0.913}\text{Mn}_{0.191}\text{Mg}_{0.629}\text{Cu}_{0.020}\text{Ca}_{17.817}\text{Na}_{0.051}\text{K}_{0.013}\text{Cl}_{0.077}\text{O}_x$	231
<b>Al–Ca–Cr–F–Fe–H–Mg–Mn–O–Si–Ti</b>	$\text{Si}_{17.651}\text{Ti}_{0.004}\text{Al}_{10.604}\text{Cr}_{0.008}\text{Fe}_{0.354}\text{Mn}_{0.004}\text{Mg}_{2.593}\text{Ca}_{18.779}\text{F}_{0.365}\text{OH}_{10.556}\text{O}_{67.677}$	232
<b>Al–Ca–Cr–Fe–H–K–Mg–Na–O–Si–Ti</b>	$(\text{Ca}_{3.82}\text{K}_{0.05}\text{Na}_{0.06})(\text{Mg}_{1.28}\text{Fe}_{0.21}\text{Al}_{0.51})(\text{Cr}_{2.60}\text{Ti}_{0.08}\text{Al}_{1.39})(\text{Si}_{5.34}\text{Al}_{0.61})\text{O}_{22}(\text{OH})_{4.00} \cdot 1.97\text{H}_2\text{O}$	273
<b>Al–Ca–Cr–Fe–H–Mg–Mn–O–Si</b>	$\text{Si}_{17.874}\text{Al}_{10.785}\text{Cr}_{0.011}\text{Fe}_{0.408}\text{Mn}_{0.016}\text{Mg}_{1.862}\text{Ca}_{19.043}\text{OH}_{11.960}\text{O}_{67.496}$	232
<b>Al–Ca–Cr–Fe–H–Mg–Mn–O–Si–Ti</b>	$(\text{Mg}_{0.62}\text{Fe}_{0.19}^{2+}\text{Fe}_{0.10}^{3+}\text{Mn}_{0.05} + \text{minor content Al, Ca, Cr, Ti})_{21}\text{O}_3(\text{OH})_{20}(\text{Si}_4\text{O}_{12})_2$	273
	$(\text{Mg}_{25.70}\text{Fe}_{7.69}^{2+}\text{Fe}_{3.63}^{3+}\text{Mn}_{1.65}^{2+}\text{Al}_{0.17}\text{Ca}_{0.07}\text{Cr}_{0.01}\text{Ti}_{0.01})\text{Si}_{15.38}\text{O}_{53.66}(\text{OH})_{35.92}$	273

Element system	Chemical formula	Page
<b>Al–Ca–Cr–Fe–H –Mg–Mn–O –Si–Ti (cont.)</b>	$(\text{Mg}_{26.74}\text{Fe}_{7.99}^{2+}\text{Fe}_{3.37}^{3+}\text{Mn}_{1.71}\text{Al}_{0.18}\text{Ca}_{0.08}\text{Cr}_{0.01}-\text{Ti}_{0.01})\text{Si}_{16}\text{O}_{55.81}(\text{OH})_{37.35}$	273
<b>Al–Ca–Cr–Fe–Mg–Mn–O –Si–Ti</b>	$\text{Mg}_{14.52}\text{Fe}_{6.26}\text{Mn}_{0.19}\text{Ca}_{0.06}\text{Al}_{0.05}\text{Cr}_{0.03}\text{Ti}_{0.01}\text{Si}_8\text{O}_{37.17}$	273
<b>Al–Ca–Cr–H –O –Si</b>	$\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}(\text{OH})\cdot\text{Cr}^{3+}$	232
<b>Al–Ca–Cu–F –Fe–H –Mg–Mn–O –Si–Ti–Zr</b>	$[(\text{Ca}_{18.28}\text{Mn}_{0.68})\text{Al}_4(\text{Fe}_{0.29}\text{Cu}_{0.71})(\text{Al}_{6.36}\text{Mg}_{0.56}\text{Ti}_{0.03}\text{Zr}_{0.97})(\text{Si}_{17.51}\text{Al}_{0.49})\text{O}_{68}(\text{OH}_{8.5}\text{F}_{1.5})]$	231
<b>Al–Ca–Cu–F –Fe–Mg–Mn–Na–O –Si–Ti</b>	$\text{Si}_{18.02}\text{Ti}_{0.02}\text{Al}_{11.04}\text{Fe}_{0.08}\text{Mn}_{0.07}\text{Mg}_{1.30}\text{Ca}_{18.98}\text{Na}_{0.13}\text{Cu}_{0.37}\text{F}_{2.44}\text{O}_x$	231
<b>Al–Ca–Cu–F –Mg–Mn–Na–O –Si–Sr</b>	$\text{Si}_{18.00}\text{Al}_{11.560}\text{Mn}_{0.811}\text{Mg}_{0.164}\text{Cu}_{0.282}\text{Ca}_{18.661}\text{Sr}_{0.019}\text{Na}_{0.596}\text{F}_{0.627}\text{O}_x$	231
<b>Al–Ca–Dy–Er–Fe–Hf–Lu–Mg–Mn–O –Sc–Si–Tm–Y –Yb–Zr</b>	$\text{Mn}_{0.018}\text{Dy}_{0.07}\text{Er}_{0.014}\text{Tm}_{0.003}\text{Yb}_{0.066}\text{Lu}_{0.015}\text{Hf}_{0.001}\text{Y}_{0.213}\text{Zr}_{0.040}\text{Ca}_{0.007}\text{Sc}_{1.548}\text{Mg}_{0.005}\text{Fe}_{0.060}\text{Si}_{1.963}\text{Al}_{0.049}\text{O}_7$	15
	$\text{Mn}_{0.030}\text{Dy}_{0.023}\text{Er}_{0.027}\text{Tm}_{0.009}\text{Yb}_{0.111}\text{Lu}_{0.026}\text{Hf}_{0.008}\text{Y}_{0.490}\text{Zr}_{0.058}\text{Ca}_{0.011}\text{Sc}_{1.132}\text{Mg}_{0.020}\text{Fe}_{0.081}\text{Si}_{1.950}\text{Al}_{0.037}\text{O}_7$	15
	$\text{Mn}_{0.054}\text{Dy}_{0.015}\text{Er}_{0.008}\text{Tm}_{0.001}\text{Yb}_{0.038}\text{Lu}_{0.007}\text{Hf}_{0.014}\text{Y}_{0.223}\text{Zr}_{0.102}\text{Ca}_{0.011}\text{Sc}_{1.385}\text{Mg}_{0.024}\text{Fe}_{0.113}\text{Si}_{1.958}\text{Al}_{0.051}\text{O}_7$	15
<b>Al–Ca–Er–H –La–Mg–O –Si</b>	$\text{CaLa}_{0.9}\text{Er}_{0.1}\text{Al}_2\text{MgSi}_3\text{O}_{13}\text{H}$	230
<b>Al–Ca–F –Fe–H –Mg–Mn–Na–Nb–O –R –Si–Ti–Y –Zr</b>	$(\text{Ca}_{2.01}\text{Na}_{0.85}\text{Y}_{0.12}\text{R}_{0.04})(\text{Zr}_{0.58}\text{Nb}_{0.02}\text{Mn}_{0.02}\text{Ti}_{0.01}\text{Fe}_{0.01}\text{Mg}_{0.01}\text{Al}_{0.01})(\text{Si}_{2.05}\text{O}_7)(\text{F}_{1.34}\text{O}_{0.41}\text{OH}_{0.18})$ (R = rare earth element)	150
<b>Al–Ca–F –Fe–H –Mg–O –Si</b>	$\text{Ca}_{10}(\text{Mg},\text{Fe})_2\text{Al}_4[\text{Si}_2\text{O}_7]_2[\text{SiO}_4]_5(\text{OH},\text{F})_4$	232
<b>Al–Ca–F –Fe–H –Mn–O –Si–Ti</b>	$\text{Si}_{17.993}\text{Ti}_{0.004}\text{Al}_{11.128}\text{Fe}_{0.105}\text{Mn}_{0.016}\text{Ca}_{18.863}\text{F}_{0.137}\text{OH}_{10.361}\text{O}_{68.364}$	232
<b>Al–Ca–F –Fe–K –Mg–Mn–Na–O –Si–Ti</b>	$\text{Si}_{17.75}\text{Ti}_{0.12}\text{Al}_{9.65}\text{Fe}_{1.09}\text{Mn}_{0.01}\text{Mg}_{2.36}\text{Ca}_{19.00}\text{Na}_{0.01}\text{K}_{0.01}\text{F}_{0.08}\text{O}_x$	231
	$\text{Si}_{18.00}\text{Ti}_{0.68}\text{Al}_{9.08}\text{Fe}_{2.01}\text{Mn}_{0.09}\text{Mg}_{1.25}\text{Ca}_{18.87}\text{Na}_{0.02}\text{K}_{0.01}\text{F}_{2.04}\text{O}_x$	231
<b>Al–Ca–F –Fe–Mg–Mn–Na–Nb–O –Si–Ti–Zr</b>	$\text{Na}_{1.79}\text{Ca}_{0.19}\text{Mn}_{0.23}\text{Mg}_{0.17}\text{Fe}_{0.06}^{2+}\text{Fe}_{0.13}^{3+}\text{Al}_{0.10}\text{Zr}_{0.72}\text{Ti}_{0.63}\text{Nb}_{0.02}\text{Si}_2\text{O}_8(\text{F}_{0.72}\text{O}_{0.28})$	174
	$\text{Na}_4\text{Ca}_8\text{Zr}_2(\text{Nb},\text{Mn},\text{Ti},\text{Fe},\text{Mg},\text{Al})_2(\text{Si}_2\text{O}_7)_4\text{O}_3\text{F}_5$	147
<b>Al–Ca–F –H –Mg–O –R –Si</b>	$\text{CaR}^{3+}\text{Mg}_2\text{AlSi}_3\text{O}_{11}(\text{OH})\text{F}$ (R = rare earth element)	209
<b>Al–Ca–F –H –Na–O –Si–Ti</b>	$(\text{Ca},\text{Na})_{6.66}(\text{Ti},\text{Al},\text{etc.})_{1.66}(\text{Si}_4\text{O}_{14})(\text{F},\text{OH})_{3.49}$	174
<b>Al–Ca–Fe–H –K –Mg–Mn–Na–O –Si–Ti</b>	$(\text{Ca}_{7.63}\text{Na}_{0.17}\text{K}_{0.01})(\text{Mn}_{2.75}^{2+}\text{Mg}_{1.10})-(\text{Mn}_{4.50}^{3+}\text{Al}_{1.87}\text{Fe}_{1.61}^{3+}\text{Ti}_{0.02})\text{Si}_{12.13}\text{O}_{39.71}(\text{OH})_{16.29}$	273
<b>Al–Ca–Fe–H –K –Mg–Na–O –Si–Ti–Zr</b>	$\text{Na}_{1.89}(\text{O}(\text{H}_3\text{O})_{0.054}\text{K}_{0.018}\text{Ca}_{0.015})(\text{Zr}_{0.990}\text{Fe}_{0.007}\text{Ti}_{0.005}\text{Mg}_{0.002})(\text{Si}_{1.987}\text{Al}_{0.012})\text{O}_{6.995}$	273

Element system	Chemical formula	Page
<b>Al–Ca–Fe–H –K –Mn–Na–O –Si</b>	$(\text{Ca}_{1.78}\text{Mn}_{0.13}^{2+}\text{Na}_{0.10}\text{K}_{0.03})(\text{Al}_{1.73}\text{Mn}_{0.76}^{3+}\text{Fe}_{0.51}^{3+})\text{Si}_3\text{O}_{12.45}(\text{OH})_{0.08}$	230
<b>Al–Ca–Fe–H –La–O –Si</b>	$(\text{La,Ca})_2(\text{Al,Fe})_3(\text{SiO}_4)_3(\text{OH})$	221
<b>Al–Ca–Fe–H –Mg–Mn–Na–O –Si</b>	$(\text{Ca}_{3.86}\text{Na}_{0.02}\text{Mn}_{0.08})\text{Al}_4(\text{Al}_{0.93}\text{Fe}_{0.46}\text{Mg}_{0.67})\text{Si}_{6.01}\text{O}_{21}(\text{OH})_7$	273
<b>Al–Ca–Fe–H –Mg–Mn–Na–O –Si–Ti</b>	$\text{Ca}_{7.41}\text{Al}_{7.27}\text{Ti}_{0.01}\text{Na}_{0.02}\text{Fe}_{2.58}^{3+}\text{Fe}_{0.77}^{2+}\text{Mg}_{1.29}\text{Mn}_{0.01}\text{Si}_{12.05}\text{O}_{56}(\text{OH})_{15.25}$	273
<b>Al–Ca–Fe–H –Mg–Mn–O –Pb–Si–Sr</b>	$(\text{Ca}_{1.17}\text{Mn}_{0.17}^{2+}\text{Pb}_{0.47}\text{Sr}_{0.21})\text{Al}_{1.95}\text{Fe}_{0.88}\text{Mn}_{0.10}\text{Mg}_{0.07}(\text{Si}_{2.95}\text{Al}_{0.05})\text{O}_{13}\text{H}$	230
<b>Al–Ca–Fe–H –Mg–Mn–O –Si</b>	$\text{CaFe}_{2.73}\text{Al}_{0.12}\text{Mn}_{0.07}\text{Mg}_{0.04}\text{Si}_2\text{O}_8(\text{OH})$	111, 118, 128
	$\text{CaFe}_{2.92}\text{Al}_{0.01}\text{Mn}_{0.02}\text{Mg}_{0.02}\text{Si}_2\text{O}_7\text{O}(\text{OH})$	106, 111
	$\text{Ca}_2(\text{Mn,Mg})(\text{Mn,Al,Fe})_2\text{Si}_3\text{O}_{10}(\text{OH})_4$	266
	$\text{Ca}_{3.93}\text{Al}_{4.34}\text{Fe}_{1.74}\text{Mg}_{0.02}\text{Mn}_{0.2}^{3+}\text{Si}_{5.96}\text{O}_{24}(\text{OH})$	232
	$(\text{Ca}_{7.54}\text{Mn}_{0.39}^{2+})(\text{Mn}_{3.56}^{2+}\text{Mg}_{0.46})(\text{Al}_{5.78}\text{Mn}_{2.00}^{3+}\text{Fe}_{0.82}^{3+})\text{Si}_{12.14}\text{O}_{41.62}(\text{OH})_{13.04}$	273
	$\text{Ca}_{7.80}(\text{Al}_{8.91}\text{Mn}_{1.85}\text{Mg}_{1.16}\text{Fe}_{0.37})\text{Si}_{11.92}\text{O}_{56-x}\text{OH}_x$	273
	$\text{Ca}_{8.12}(\text{Al}_{7.99}\text{Mn}_{3.41}\text{Mg}_{0.71}\text{Fe}_{0.30})\text{Si}_{11.84}\text{O}_{56-x}\text{OH}_x$	273
	$(\text{Ca}_{8.8}\text{Mn}_{0.1})(\text{Fe}_{2.7}^{2+}\text{Fe}_{1.2}^{3+}\text{Mg}_{0.1})(\text{Fe}_{7.2}^{3+}\text{Al}_{0.6})\text{Si}_{12.7}\text{O}_{44.7}(\text{OH})_{11.7}$	273
	$\text{CaFe}_{2.94}\text{Mg}_{0.02}\text{Mn}_{0.02}\text{Al}_{0.01}\text{Ti}_{0.01}\text{Si}_2\text{O}_8(\text{OH})$	118
	$\text{Ca}_{3.90}\text{Al}_{4.42}\text{Fe}_{1.54}\text{Mg}_{0.01}\text{Mn}_{0.04}^{3+}\text{Ti}_{0.01}\text{Si}_{6.06}\text{O}_{24}(\text{OH})$	232
<b>Al–Ca–Fe–H –Mg–Na–O –Si–Ti</b>	$\text{Ca}_{4.05}\text{Al}_{4.75}\text{Fe}_{1.16}\text{Mg}_{0.03}\text{Ti}_{0.01}\text{Mn}_{0.06}^{3+}\text{Si}_{5.97}\text{O}_{24}(\text{OH})$	232
	$\text{Ca}_{7.39}\text{Al}_{8.88}\text{Ti}_{0.01}\text{Fe}_{1.05}^{3+}\text{Fe}_{0.39}^{2+}\text{Mg}_{1.50}\text{Mn}_{0.05}\text{Si}_{12.17}\text{O}_{56}(\text{OH})_{14.83}$	273
	$[\text{Ca}_{18.15}\text{Mn}_{0.03}\text{Mg}_{0.12}]\text{Al}_{4.00}\text{Fe}_{1.00}(\text{Al}_{5.25}\text{Mg}_{1.64}\text{Fe}_{0.47}\text{Ti}_{0.80})\text{Si}_{18.00}\text{O}_{69.33}(\text{OH})_{10}$	232
	$[\text{Ca}_{18.89}\text{Mn}_{0.04}\text{Mg}_{0.07}]\text{Al}_{4.00}\text{Fe}_{1.00}(\text{Al}_{5.79}\text{Mg}_{1.70}\text{Fe}_{0.60}\text{Ti}_{0.11})\text{Si}_{18.00}\text{O}_{69.03}(\text{OH})_{10}$	232
	$\text{Ca}_{7.61}\text{Na}_{0.20}\text{Al}_{10.80}\text{Fe}_{0.26}^{3+}\text{Fe}_{0.51}^{2+}\text{Mg}_{1.42}\text{Si}_{11.19}\text{O}_{56}(\text{OH})_{14.79}$	273
<b>Al–Ca–Fe–H –Mg–O –Si</b>	$(\text{Ca}_{7.60}\text{Mg}_{0.40})(\text{Mg}_{1.20}\text{Fe}_{0.77}^{2+}\text{Fe}_{0.18}^{3+}\text{Al}_{10.00})\text{Si}_{11.20}\text{Al}_{0.80}\text{O}_{44}/\{(\text{OH})_{9.29}(\text{H}_2\text{O})_{2.71}\}$	273
	$\text{Ca}_{19}\text{Fe}(\text{Mg,Al})_8\text{Al}_4(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4(\text{OH})_{10}$	221
<b>Al–Ca–Fe–H –Mn–O –Si</b>	$\text{Ca}_{0.93}\text{Fe}_{2.73}\text{Al}_{0.05}\text{Mn}_{0.07}\text{Si}_2\text{O}_8(\text{OH})$	132
	$\text{Ca}_{0.98}\text{Mn}_{0.021}\text{Fe}_{2.97}\text{Al}_{0.026}(\text{Si}_{1.99}\text{O}_7)\text{O}(\text{OH})$	102, 114, 131

Element system	Chemical formula	Page
<b>Al–Ca–Fe–H –Mn–O –Si (cont.)</b>	$\text{CaFe}_{2.92}\text{Al}_{0.01}\text{Mn}_{0.02}\text{Si}_2\text{O}_7\text{O}(\text{OH})$	113, 126, 127
	$\text{Ca}_2\text{Al}_{2.87}\text{Mn}_{0.03}^{3+}\text{Fe}_{0.10}^{3+} [\text{OH} \text{O} \text{SiO}_4 \text{Si}_2\text{O}_7]$	230
	$\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}\text{OH}$ with 1.4 wt % $\text{Fe}_2\text{O}_3$ , < 0.1 wt % $\text{Mn}_2\text{O}_3$	230
	$\text{Ca}_2(\text{Mn,Fe})\text{Al}_2(\text{Si}_2\text{O}_7)(\text{SiO}_4)(\text{O,OH})_2$	221
	$\text{Ca}_{3.99}\text{Al}_{4.34}\text{Fe}_{1.62}\text{Mn}_{0.01}^{3+}\text{Si}_{6.03}\text{O}_{24}(\text{OH})$	232
	$\text{Ca}_{8.5}(\text{Mn}_{8.77}^{3+}\text{Al}_{0.45}^{3+}\text{Fe}_{0.49}^{3+}\text{Mn}_{0.28}^{2+})\text{Si}_{11.60}\text{O}_{42} - (\text{OH})_9 \cdot 4.9\text{H}_2\text{O}$	232
<b>Al–Ca–Fe–H –Mn–O –Si–Ti</b>	$\text{Ca}_2\text{Al}_{2.15}\text{Fe}_{0.31}^{3+}\text{Ti}_{0.02}\text{Mn}_{0.04}\text{Si}_3\text{O}_{13}\text{H}$	230
<b>Al–Ca–Fe–H –O –Si</b>	$\text{Ca}_{1.00}\text{Al}_{1.95}\text{Fe}_{0.05}\text{Si}_{2.00}\text{O}_7(\text{OH})_2$	132
	$\text{Ca}_{1.00}\text{Al}_{1.95}\text{Fe}_{0.05}\text{Si}_{2.00}\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}$	102, 111
	$\text{CaFe}_2^{2+}\text{Fe}_{1-x}^{3+}\text{Al}_x\text{Si}_2\text{O}_7\text{O}(\text{OH})$	99, 129
	$\text{CaFe}_2^{2+}\text{Fe}_{1-x}^{2+}\text{Al}_x\text{Si}_2\text{O}_7\text{O}(\text{OH})$	100
	$\text{Ca}_2(\text{Al}_{1-x}\text{Fe}_x^{3+})\text{Al}_2\text{O}(\text{OH})(\text{SiO}_4)[\text{Si}_2\text{O}_7]$	219
	$\text{Ca}_2(\text{Al}_{0.68}\text{Fe}_{0.32})_3\text{Si}_3\text{O}_{12}(\text{OH})$	232
	$\text{Ca}_2\text{Al}_2\text{Fe}[\text{SiO}_4][\text{Si}_2\text{O}_7]\text{O}(\text{OH})$	232
	$\text{Ca}_2[\text{Al}_2\text{Fe}]\text{Si}_3\text{O}_{12}\text{OH}$	207
	$\text{Ca}_2\text{Al}_2\text{Fe}^{3+}[\text{SiO}_4 \text{Si}_2\text{O}_7(\text{O} \text{OH})]$	207
	$\text{Ca}_2\text{Al}_{2.16}\text{Fe}_{0.84}\text{Si}_3\text{O}_{13}\text{H}$	230
	$\text{Ca}_{2.0}\text{Al}_{2.48}\text{Fe}_{0.52}\text{Si}_3\text{O}_{12}\text{OH}$	230
	$\text{Ca}_2\text{Al}_{2.60}\text{Fe}_{0.40}\text{Si}_3\text{O}_{13}\text{H}$	230
	$\text{Ca}_2\text{Al}_{2.97}\text{Fe}_{0.03}\text{Si}_3\text{O}_{13}\text{H}$	230
	$\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}(\text{OH}): \text{Fe}^{3+}$	232
	$\text{Ca}_2(\text{Fe}_{0.48}^{2+}\text{Fe}_{0.52}^{3+})(\text{Fe}_{0.94}^{3+}\text{Al}_{0.06})_2\text{Si}_3\text{O}_{10.52} - (\text{OH})_{3.48}$	273
	$\text{Ca}_2\text{FeAl}_2(\text{Si}_2\text{O}_7)(\text{SiO}_4)(\text{O,OH})_2$	221
	$\text{Ca}_2\text{Fe}^{3+}\text{Al}_2(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH, O})_2 \cdot \text{H}_2\text{O}$	266
	$\text{Ca}_2\text{Fe}^{2+}\text{Al}_2(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_2 \cdot \text{H}_2\text{O}$	266
<b>Al–Ca–Fe–H –O –Si–Ti</b>	$\text{Ca}_{0.981}(\text{Al}_{1.953}\text{Fe}_{0.036}\text{Ti}_{0.013})\text{Si}_{2.013}\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}$	111
<b>Al–Ca–Fe–H –O –Si–V</b>	$\text{Ca}_{2.0}(\text{Al}_{2.1}\text{V}_{0.8}\text{Fe}_{0.1})\text{Si}_{3.1}\text{O}_{12.0}(\text{OH})$	209, 233
<b>Al–Ca–Fe–K –Mg–Mn–Na–O –Pb–Si–Zn</b>	$(\text{Ca}_{1.93}\text{Mn}_{0.06}\text{Na}_{0.04}\text{K}_{0.01}\text{Pb}_{0.01})[\text{Zn}_{0.93}\text{Mg}_{0.09} - \text{Al}_{0.05}\text{Fe}_{0.04}\text{Si}_{1.93}]\text{O}_7$	57
<b>Al–Ca–Fe–La–O –Si–Ti</b>	$(\text{La}_3\text{Ca})\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Ca–Fe–Mg–Mn–Na–O –Pb–Si–Zn</b>	$(\text{Ca}_{1.85}\text{Na}_{0.14}\text{Pb}_{0.01})(\text{Zn}_{0.85}\text{Al}_{0.07}\text{Mg}_{0.03} - \text{Mn}_{0.04}^{3+}\text{Fe}_{0.02}^{3+})\text{Si}_{2.00}\text{O}_7$	57
<b>Al–Ca–Fe–Mg–Mn–Na–O –Si</b>	$\text{Si}_{18.02}\text{Al}_{10.56}\text{Fe}_{0.58}\text{Mn}_{0.47}\text{Mg}_{1.22}\text{Ca}_{18.81}\text{Na}_{0.04}\text{O}_{73}$	232
<b>Al–Ca–Fe–Mg–Mn–O –Si</b>	$\text{Si}_{18.18}\text{Al}_{9.60}\text{Fe}_{1.08}\text{Mn}_{0.20}\text{Mg}_{1.79}\text{Ca}_{19.16}\text{O}_{73}$	232

Element system	Chemical formula	Page
<b>Al–Ca–Fe–Mg–O–Si</b>	$(\text{Ca}_{1.98}\text{Mg}_{0.01})(\text{Mg}_{0.68}\text{Fe}_{0.14}^{3+}\text{Al}_{0.18})_{\text{T1}} - (\text{Fe}_{0.15}^{3+}\text{Al}_{0.15}\text{Si}_{1.70})_{\text{T2}}\text{O}_7$	57-59
	$(\text{Ca}_{1.99}\text{Mg}_{0.01})(\text{Mg}_{0.49}\text{Fe}_{0.24}^{3+}\text{Al}_{0.27})_{\text{T1}} - (\text{Fe}_{0.24}^{3+}\text{Al}_{0.24}\text{Si}_{1.52})_{\text{T2}}\text{O}_7$	57-59
	$\text{Ca}_2\text{MgSi}_2\text{O}_7 - \text{Ca}_2\text{Fe}^{3+}\text{AlSiO}_7$	38, 46
<b>Al–Ca–Fe–O–Pr–Si–Ti</b>	$(\text{Pr}_3\text{Ca})\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Ca–Fe–O–R–Si</b>	$\text{CaR}(\text{Al}^{3+}, \text{Fe}^{3+})_3\text{Si}_3\text{O}_{13}$ (R = rare earth element)	208
<b>Al–Ca–Fe–O–Si</b>	$\text{Ca}_{2.00}(\text{Al}_{0.79}\text{Fe}_{0.21}^{3+})_{\text{T1}}(\text{Al}_{0.71}\text{Fe}_{0.29}^{3+}\text{Si}_{1.00})_{\text{T2}}\text{O}_7$	57, 59
	$\text{Ca}_2\text{Al}_2\text{SiO}_7 - \text{Ca}_2\text{Fe}^{3+}\text{AlSiO}_7$	38, 46
<b>Al–Ca–Gd–H–La–Mg–O–Si</b>	$\text{CaLa}_{0.9}\text{Gd}_{0.1}\text{Al}_2\text{MgSi}_3\text{O}_{13}\text{H}$	230
<b>Al–Ca–H–La–Lu–Mg–O–Si</b>	$\text{CaLa}_{0.9}\text{Lu}_{0.1}\text{Al}_2\text{MgSi}_3\text{O}_{13}\text{H}$	230
<b>Al–Ca–H–La–Mg–O–R–Si</b>	$\text{CaLa}_{0.9}\text{R}_{0.1}\text{Al}_2\text{MgSi}_3\text{O}_{13}\text{H}$ (R = Gd, Er, Lu)	218, 235
<b>Al–Ca–H–La–Nb–O–Si–Th–Ti</b>	$(\text{Ca}, \text{La}, \text{Th})(\text{Ti}, \text{Nb})\text{AlSi}_2\text{O}_7(\text{OH})_4 \cdot 3\text{H}_2\text{O}$	221
<b>Al–Ca–H–Mg–O–Si</b>	$\text{Ca}_2\text{MgAl}_2(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_2 \cdot \text{H}_2\text{O}$	266
	$\text{Ca}_4(\text{MgAl})\text{Al}_4[\text{Si}_6\text{O}_{21}(\text{OH})_7]$	214
<b>Al–Ca–H–Mg–O–Si–Sr–V</b>	$\text{Ca}_{1.99}\text{Sr}_{0.01}\text{Al}_{2.99}\text{Mg}_{0.01}\text{V}_{0.01}\text{Si}_{3.00}\text{O}_{12}\text{OH}$	230
<b>Al–Ca–H–Mn–O–Si</b>	$\text{Ca}_2(\text{Al}_{3-x}\text{Mn}_x^{3+})[\text{OH} \text{O} \text{SiO}_4 \text{Si}_2\text{O}_7]$	252
	$\text{Ca}_2\text{Al}_2\text{MnSi}_3\text{O}_{12}(\text{OH})$	230
	$\text{Ca}_2\text{Al}_{2.17}\text{Mn}_{0.83}[\text{OH} \text{O} \text{SiO}_4 \text{Si}_2\text{O}_7]$	230
	$\text{Ca}_2(\text{Mn}^{3+}, \text{Al})_3(\text{OH})_3[\text{SiO}_4][\text{Si}_2\text{O}_7]$	231
	$\text{Ca}_2\text{MnAl}_2(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_2 \cdot \text{H}_2\text{O}$	266
<b>Al–Ca–H–O–Pb–Si</b>	$\text{CaPbAl}_3(\text{Si}_2\text{O}_7)(\text{SiO}_4)(\text{O}, \text{OH})_2$	221
<b>Al–Ca–H–O–Si</b>	$\text{CaAl}_2\text{Si}_2\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}$	93, 106-108
	$\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2-\text{H}_2\text{O}$	93
	$\text{Ca}_2[\text{Al}_2\text{Al}]\text{Si}_3\text{O}_{12}\text{OH}$	207, 216, 234
	$\text{Ca}_2\text{Al}_2\text{Al}[\text{SiO}_4 \text{Si}_2\text{O}_7 (\text{O} \text{OH})]$	207, 232
	$\text{Ca}_2\text{Al}_3(\text{Si}_2\text{O}_7)(\text{SiO}_4)(\text{O}, \text{OH})_2$	221
	$\text{Ca}_4\text{Al}_6[(\text{OH})_6(\text{SiO}_4)_2(\text{Si}_2\text{O}_7)_2]$	212
<b>Al–Ca–H–O–Si–V</b>	$\text{Ca}_2\text{Al}_2\text{VSi}_3\text{O}_{12}(\text{OH})$	221
	$\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}(\text{OH}): \text{VO}_2^{2+}, \text{V}^{4+}$	232
	$\text{Ca}_{2.00}\text{Al}_{3.00}\text{V}_{0.02}\text{Si}_{2.98}\text{O}_{12}\text{OH}$	230
<b>Al–Ca–Mg–Na–O–Si</b>	$(\text{Ca}, \text{Na})_2(\text{Mg}, \text{Al})(\text{Si}, \text{Al})_2\text{O}_7$	29, 37, 52
	$\text{Ca}_2\text{MgSi}_2\text{O}_7 - \text{CaNaAlSi}_2\text{O}_7$	38
<b>Al–Ca–Mg–O–Si</b>	$\text{Ca}_2\text{MgSi}_2\text{O}_7 - \text{Ca}_2\text{Al}_2\text{SiO}_7$	37, 38
	$\text{Ca}_2[\text{Mg}_x\text{Al}_{1-x}][\text{Si}_{1+x}\text{Al}_{1-x}]\text{O}_7$	37



Element system	Chemical formula	Page
<b>Al–Ca–Na–O–Si</b>	$\text{CaNaAlSi}_2\text{O}_7$	29, 37, 38, 50–52, 55
	$\text{Ca}_2\text{Al}_2\text{SiO}_7\text{–CaNaAlSi}_2\text{O}_7$	38
<b>Al–Ca–O</b>	$\text{CaAl}_2\text{O}_4$	37, 50
<b>Al–Ca–O–Si</b>	$\text{Ca}(\text{Al}_2\text{Si}_4)\text{O}_{12}$	93
	$\text{Ca}_2\text{Al}(\text{Si},\text{Al})_2\text{O}_7$	52
	$\text{Ca}_2\text{AlSiO}_{5.5}$	37
	$\text{Ca}_2\text{Al}_2\text{SiO}_7$	29, 36, 37
	$\text{Ca}_2\text{Al}_2\text{Si}_2\text{O}_7$	38, 48, 50, 51, 55, 59, 83
<b>Al–Ce–Fe–O–Si–Sr–Ti</b>	$(\text{Ce}_3\text{Sr})\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Ce–Fe–O–Si–Ti</b>	$\text{Ce}_4\text{Fe}(\text{Fe}_{0.5}\text{AlTi}_{0.5})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
	$\text{Ce}_4\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_3\text{AlO}_{22}$	231
	$\text{Ce}_4\text{FeAl}_2\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Cl–F–H–O–Si</b>	$\text{Al}_{13}\text{Si}_5\text{O}_{20}(\text{OH},\text{F})_{18}\text{Cl}$	259, 266
	$\text{Si}_{4.95}\text{Al}_{13.05}\text{O}_{19.95}(\text{OH})_{13.96}\text{F}_{4.09}\text{Cl}$	273
	$\text{Si}_{4.68}\text{Al}_{13.32}\text{O}_{19.68}(\text{OH})_{14.71}\text{F}_{3.61}\text{Cl}$	273
<b>Al–Cl–H–O–Si</b>	$\text{Si}_5\text{Al}_{13}\text{O}_{20}(\text{OH})_{18}\text{Cl}$	259
<b>Al–Cu–Fe–H–Mg–Mn–O–P–Si–Zn</b>	$(\text{Mn}_{0.82}\text{Mg}_{0.07}\text{Cu}_{0.06}\text{Zn}_{0.04})(\text{Al}_{5.86}\text{Fe}_{0.09}^{3+})(\text{Si}_{4.01}\text{P}_{0.03})\text{O}_{17}(\text{OH})_2$	273
<b>Al–Cu–Fe–O–Pb–Si</b>	$\text{Cu}_2\text{Pb}_2(\text{Fe},\text{Al})_2\text{Si}_5\text{O}_{17} \cdot 6\text{H}_2\text{O}$	192
<b>Al–Fe–Mg–Mn–O–Pb–Si–Ti</b>	$\text{Pb}_{1.98}^{2+}(\text{Mn}_{1.28}^{3+}\text{Fe}_{0.61}^{3+}\text{Al}_{0.04}^{3+}\text{Ti}_{0.04}^{4+}\text{Mg}_{0.01}^{2+})\text{Si}_{2.02}\text{O}_9$	198
<b>Al–Fe–Nd–O–Si–Ti</b>	$\text{Nd}_4\text{FeAl}_2\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Al–Fe–O–Pr–Si–Ti</b>	$\text{Pr}_4\text{FeAl}_2\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
	$\text{Pr}_4\text{Fe}(\text{AlTi})\text{Ti}_2\text{Si}_3\text{AlO}_{22}$	231
<b>Al–Fe–O–Si–Sr</b>	$\text{Sr}_{2.00}(\text{Al}_{0.74}\text{Fe}_{0.26}^{3+})_{\text{T1}}(\text{Al}_{0.76}\text{Fe}_{0.24}^{3+}\text{Si}_{1.00})_{\text{T2}}\text{O}_7$	57, 59
	$\text{Sr}_2\text{Al}_2\text{SiO}_7\text{–Sr}_2\text{Fe}^{3+}\text{AlSiO}_7$	38, 46
<b>Al–H–Mg–Mn–O–Si</b>	$(\text{Mn}_{0.82}\text{Mg}_{0.12}\text{Mg}_{0.07})\text{Al}_{6.02}\text{Si}_{3.98}\text{O}_{17}(\text{OH})_2$	273
<b>Al–H–Mg–O–Si</b>	$\text{Mg}_4(\text{MgAl})\text{Al}_4[\text{Si}_6\text{O}_{21}(\text{OH})_7]$	214, 230, 232
	$\text{Mg}_{4.65}\text{Al}_{5.39}\text{Si}_{5.88}\text{O}_{21}(\text{OH})_7 - \text{H}_2\text{O}$	232
	$\text{Mg}_{4.81}\text{Al}_{5.23}\text{Si}_{5.92}\text{O}_{21}(\text{OH})_7 - 7.11 \text{ wt } \% \text{H}_2\text{O}$	232
	$\text{Mg}_{4.93}\text{Al}_{5.15}\text{Si}_{5.92}\text{O}_{21}(\text{OH})_7 - 7.33 \text{ wt } \% \text{H}_2\text{O}$	232
	$\text{Mg}_5\text{Al}_5\text{Si}_6\text{O}_{21}(\text{OH})_7$	214, 218, 221, 262
	$\text{Mg}_8(\text{Mg}_2\text{Al}_2)\text{Al}_8\text{Si}_{12}(\text{O},\text{OH})_{56}$	262, 273
<b>Al–H–Mn–O–Si</b>	$\text{MnAl}_6\text{Si}_4\text{O}_{17}(\text{OH})_2$	259, 266, 273
	$\text{Mn}_2\text{Al}_3(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_3$	221, 232
<b>Al–H–O–Si</b>	$(\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4)$	265
<b>Al–N–O–R–Si</b>	$\text{R–Si–Al–O–N}$ (R = rare-earth element; Y)	4

Element system	Chemical formula	Page
<b>Al–N–O–Si–Y</b>	$\text{YSi}_2\text{AlO}_4\text{N}_2$	4
	$\text{Y}_2\text{O}_3\text{--SiO}_2\text{--AlN}$	4
<b>Al–O–Si–Sr</b>	$\text{Sr}_2\text{Al}_2\text{SiO}_7$	29, 36-38, 53, 55
<b>As–Ca–Fe–H–Mn–O–Si–V</b>	$(\text{Mn}_{3.909}\text{Ca}_{0.077}\text{Fe}_{0.013})[(\text{As}_{0.844}\text{V}_{0.116}\text{Si}_3\text{O}_{12}(\text{OH}))]$	273
	$(\text{Mn}_{5.774}\text{Ca}_{0.190}\text{Fe}_{0.035})[(\text{V}_{0.815}\text{As}_{0.185})\text{Si}_5\text{O}_{18}(\text{OH})]$	273
<b>As–Ca–H–Mn–O–Si–V</b>	$(\text{Mn,Ca})_6(\text{V,As})\text{Si}_5\text{O}_{18}(\text{OH})$	266
<b>As–Ca–H–Mn–O–Si–Zn</b>	$\text{Ca}_{4.04}\text{Mn}_{5.88}\text{Zn}_{0.05}\text{Si}_{3.97}\text{As}_{0.09}\text{O}_{16}(\text{OH})_8 \cdot 18\text{H}_2\text{O}$	232
<b>As–Fe–H–Mg–Mn–Na–O–Si</b>	$\text{Na}_{2.06}\text{Mg}_{4.20}\text{Fe}_{0.03}\text{Mn}_{11.83}\text{As}_{1.90}\text{Si}_{12.18}\text{O}_{43.22}(\text{OH})_{5.95}$	273
<b>As–H–Mg–Mn–Na–O–Si</b>	$\text{Na}_2\text{Mg}_4\text{Mn}_{12}\text{As}_2\text{Si}_{12}\text{O}_{43}(\text{OH})_6$	260, 266
<b>As–H–Mn–O–Si</b>	$\text{Mn}_4[\text{AsSi}_3\text{O}_{12}(\text{OH})]$	260, 266
<b>As–S–Si–Sm–O</b>	$\text{Sm}_4\text{S}_3\text{Si}_2\text{O}_7$	1
<b>B–Ca–O–Si</b>	$\text{CaB}_2\text{Si}_2\text{O}_8$	212, 217, 221, 225, 231, 234
	$\text{Ca}_2\text{SiB}_2\text{O}_7$	29, 38, 52, 55
<b>B–H–K–Na–Nb–O–Si–Ti</b>	$(\text{Na,B,K})_{2-x}(\text{Ti,Nb})(\text{Si}_4\text{O}_{12})(\text{OH,O})_2 \cdot 4\text{H}_2\text{O}$	167
<b>B–O–Si–Y</b>	$\text{Y}_2\text{SiB}_2\text{O}_7$	38
<b>Ba–Be–O–Si</b>	$\text{BaBe}_2\text{Si}_2\text{O}_7$	38, 40, 41, 90, 106, 111
	$\text{Ba}_2\text{BeSi}_2\text{O}_7$	52
<b>Ba–Ca–F–Fe–H–K–Mn–Na–O–Si–Sr–Ti</b>	$(\text{Sr,Ba,K})_2(\text{Na,Ca})(\text{Na,Mn,Ca,Fe}^{2+})_2(\text{Ti,Fe}^{3+})\text{-Ti}_2\text{O}_2(\text{Si}_2\text{O}_7)_2(\text{O,OH,F})_2$	
<b>Ba–Ca–F–H–Mn–Na–O–Si–Sr–Ti</b>	$(\text{Na,Ca})(\text{Na,Mn})_2(\text{Sr,Ba})_2\text{Ti}_3(\text{Si}_2\text{O}_7)_2(\text{O,OH,F})_4$	163, 166
<b>Ba–Ca–Fe–H–K–Na–Nb–O–Si–Sr–Ti–Zr</b>	$\text{H}_{34.83}(\text{Na}_{4.21}\text{K}_{0.80}\text{Sr}_{0.54}\text{Ba}_{0.41}\text{Ca}_{0.08}\text{Zr}_{0.01})\text{-}(\text{Ti}_{4.22}\text{Nb}_{3.71}\text{Fe}_{0.07}^{3+})\text{Si}_{16}\text{O}_{70.78}$	174
<b>Ba–Ca–Fe–H–K–Mg–Mn–Na–Nb–O–Si–Sr–Ti–Zn</b>	$(\text{K}_{1.56}\text{Na}_{0.36}\text{Ba}_{1.47}\text{Sr}_{0.11}\text{Ca}_{0.11}\text{Zn}_{0.07})\text{-}(\text{Fe}_{1.58}^{2+}\text{Mn}_{0.65}\text{Mg}_{0.09})(\text{Ti}_{4.44}\text{Nb}_{3.41}\text{Fe}_{0.16}^{3+})\text{-}[\text{Si}_4\text{O}_{12}][\text{O}_{6.40}(\text{OH})_{1.60}] \cdot 14.29\text{H}_2\text{O}$	175
<b>Ba–Ca–Fe–Mg–Mn–O–Si–Ti</b>	$(\text{Ba}_{1.95}\text{Ca}_{0.05})(\text{Ti}_{0.96}\text{Mn}_{0.01}\text{Mg}_{0.02}\text{Fe}_{0.05})\text{-Si}_{2.00}\text{O}_7$	57
<b>Ba–Ca–H–K–Na–O–Si–Ti</b>	$(\text{Na,K})_{2.7}(\text{Ba,Ca})_4\text{Ti}_6\text{Si}_8\text{O}_{26}(\text{OH})_{14}$	164, 166
<b>Ba–Ca–H–Na–O–Si–Ti</b>	$(\text{Na,Ca,Ba})_{10}\text{Ti}_5\text{Si}_{14}\text{O}_{22}(\text{OH})_{44}$	161
<b>Ba–Ca–Mg–Mn–Na–O–Si–Sr</b>	$(\text{Sr}_{2.78}\text{Ca}_{0.07}\text{Na}_{0.05}\text{Mg}_{0.03})\text{Ba}_{1.03}\text{Mn}_{2.34}\text{Si}_{3.86}\text{O}_{14}$	175
<b>Ba–Ca–Na–O–Si–Ti</b>	$\text{Na}_2\text{Ba}_4\text{CaTi}_3\text{O}_4(\text{Si}_2\text{O}_7)_2(\text{SO}_4)_2$	190, 192
<b>Ba–Ce–H–Na–O–Si–Ti</b>	$(\text{Na,Ce,Ba})_{10}\text{Ti}_5\text{Si}_{14}\text{O}_{22}(\text{OH})_{44} \cdot n\text{H}_2\text{O}$	166
<b>Ba–Cl–H–Mn–O–P–S–Si–Ti</b>	$\text{Ba}_2\text{TiMn}_2(\text{SiO}_4)_2(\text{SO}_4,\text{PO}_4)(\text{OH,Cl})$	190, 192
<b>Ba–Co–O–Si</b>	$\text{BaCo}_2\text{Si}_2\text{O}_7$	40, 41, 56, 58, 73
	$\text{Ba}_2\text{CoSi}_2\text{O}_7$	52

Element system	Chemical formula	Page
<b>Ba–Cu–Ge–O</b>	BaCu <sub>2</sub> Ge <sub>2</sub> O <sub>7</sub>	41, 45, 46, 49, 56, 58
<b>Ba–Cu–Ge–O–Si</b>	BaCu <sub>2</sub> (Si <sub>1-x</sub> Ge <sub>x</sub> ) <sub>2</sub> O <sub>7</sub>	41, 44-46, 49, 71, 75, 76, 82
<b>Ba–Cu–O–Si</b>	BaCu <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>	29, 41, 42, 44, 45, 49, 54, 56, 58, 74
	Ba <sub>2</sub> CuSi <sub>2</sub> O <sub>7</sub>	52, 56
<b>Ba–F–Fe–H–Mn–O–Si–Ti</b>	Ba(Fe,Mn) <sub>2</sub> Ti(Si <sub>2</sub> O <sub>7</sub> (O,OH,F) <sub>2</sub>	164, 166
	Ba(Fe <sub>0.76</sub> <sup>2+</sup> Fe <sub>0.33</sub> <sup>3+</sup> Mn <sub>0.90</sub> )TiSi <sub>2</sub> O <sub>7</sub> (O,OH,F) <sub>2</sub>	157
<b>Ba–F–H–Na–Nb–O–P–Si–Ti</b>	BaNa <sub>4</sub> Ti <sub>2</sub> NbSi <sub>4</sub> O <sub>17</sub> (F,OH)1Na <sub>3</sub> PO <sub>4</sub>	198
	Na <sub>7</sub> BaTi <sub>2</sub> NbSi <sub>4</sub> O <sub>17</sub> (PO <sub>4</sub> )(F,OH)	188, 192
<b>Ba–F–H–Na–O–Si–Ti</b>	Na <sub>6</sub> Ba <sub>3</sub> Ti <sub>7</sub> O <sub>4</sub> (Si <sub>2</sub> O <sub>7</sub> ) <sub>4</sub> (F,OH,O) <sub>4</sub>	163, 166
<b>Ba–Fe–H–K–Mg–Mn–Na–Nb–O–Si–Ti</b>	(K <sub>3.43</sub> Na <sub>0.46</sub> Ba <sub>0.17</sub> )(Mn <sub>1.26</sub> Fe <sub>0.36</sub> Mg <sub>0.17</sub> )(Ti <sub>7.11</sub> -Nb <sub>0.81</sub> )[Si <sub>4</sub> O <sub>12</sub> ] <sub>4</sub> [(OH) <sub>7.70</sub> O <sub>0.30</sub> ] · 9.54H <sub>2</sub> O	174
	Na <sub>1.22</sub> K <sub>2.29</sub> Ba <sub>0.26</sub> (Fe <sub>0.31</sub> Mg <sub>0.23</sub> Mn <sub>0.09</sub> )(Ti <sub>2.31</sub> -Nb <sub>1.65</sub> )(Si <sub>8.00</sub> O <sub>24</sub> )[O <sub>2.78</sub> (OH) <sub>1.22</sub> ] · 5.68H <sub>2</sub> O	175
<b>Ba–Fe–H–K–O–Si–Ti</b>	(K,Ba) <sub>8</sub> Fe <sub>4</sub> Ti <sub>16</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>8</sub> (OH,O) <sub>16</sub> · nH <sub>2</sub> O	168
<b>Ba–Fe–H–Mn–O–Si</b>	BaFeMn <sub>2</sub> O(Si <sub>2</sub> O <sub>7</sub> )(OH)	164, 166
<b>Ba–Fe–H–Mn–O–Si–Sr</b>	Sr <sub>0.98</sub> Ba <sub>0.01</sub> Mn <sub>2.01</sub> Fe <sub>0.03</sub> Si <sub>1.97</sub> O <sub>7</sub> (OH) <sub>2</sub> · H <sub>2</sub> O	111
<b>Ba–Fe–H–Mn–O–Si–Sr–Ti</b>	(Ba,Sr)(Fe,Ti)(Mn,Fe)Si <sub>2</sub> O <sub>7</sub> (O,OH) <sub>2</sub>	164, 166
<b>Ba–Fe–H–K–Mn–Na–Nb–O–Si–Ti</b>	(K <sub>0.86</sub> Ba <sub>0.46</sub> Na <sub>0.43</sub> Mn <sub>0.10</sub> )(Ti <sub>1.66</sub> Nb <sub>0.33</sub> Fe <sub>0.03</sub> <sup>3+</sup> )-Si <sub>4</sub> O <sub>12</sub> (OH <sub>1.21</sub> )O <sub>0.79</sub> · 2.94H <sub>2</sub> O	174
<b>Ba–Fe–Mg–Mn–O–Si</b>	BaFe(Fe,Mn,Mg)Si <sub>2</sub> O <sub>7</sub>	163, 166
	BaFe(Fe <sub>0.85</sub> Mn <sub>0.08</sub> Mg <sub>0.07</sub> )Si <sub>2</sub> O <sub>7</sub>	175
<b>Ba–Fe–O–Si</b>	BaFe <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>	42
	Ba <sub>2</sub> FeSi <sub>2</sub> O <sub>7</sub>	46
<b>Ba–Ge–Hf–O–Si–Ti</b>	Ba <sub>2</sub> (Ti <sub>0.95</sub> Hf <sub>0.05</sub> )(Ge <sub>2x</sub> Si <sub>2-2x</sub> )O <sub>8</sub>	47, 78
<b>Ba–Ge–O–Si–Ti</b>	Ba <sub>2</sub> TiGe <sub>2x</sub> Si <sub>2-2x</sub> O <sub>8</sub>	39, 49
<b>Ba–H–Fe–K–Mg–Mn–Na–Nb–O–Si–Sr–Ti–Zr</b>	Na <sub>4.34</sub> K <sub>3.74</sub> (Ba <sub>2.08</sub> Sr <sub>0.03</sub> )(□ <sub>1.07</sub> Mn <sub>0.56</sub> Mg <sub>0.24</sub> -Fe <sub>0.13</sub> )[(Ti <sub>7.94</sub> Nb <sub>0.08</sub> Zr <sub>0.02</sub> )O <sub>6.40</sub> (OH) <sub>1.60</sub> ]-[Si <sub>4</sub> O <sub>12</sub> ] <sub>4</sub> · 10.46H <sub>2</sub> O	174
<b>Ba–H–K–Na–Nb–O–Si–Ti</b>	(Ba,Na,K) <sub>2-x</sub> (Ti,Nb) <sub>2</sub> (Si <sub>4</sub> O <sub>12</sub> )(OH,O) <sub>2</sub> · 4H <sub>2</sub> O	167
	(K,Ba,Na) <sub>2</sub> (Ti,Nb) <sub>2</sub> (Si <sub>4</sub> O <sub>12</sub> )(OH,O) <sub>2</sub> · 3H <sub>2</sub> O	167
<b>Ba–H–K–Na–O–Si–Sr–Ti</b>	(Na,H <sub>3</sub> O,K,Sr,Ba) <sub>12-x</sub> Ti <sub>8</sub> [Si <sub>4</sub> O <sub>12</sub> ] <sub>4</sub> (OH,O) <sub>8</sub> · nH <sub>2</sub> O	167
<b>Ba–H–K–Na–O–Si–Ti</b>	Na <sub>4</sub> K <sub>4</sub> Ba <sub>2+x</sub> Ti <sub>8</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>4</sub> (O,OH) <sub>8</sub> · 8H <sub>2</sub> O	167
<b>Ba–H–Na–Nb–O–Si–Ti</b>	(Na <sub>2.62</sub> Ba <sub>0.02</sub> )(Ti <sub>1.57</sub> Nb <sub>0.45</sub> )[Si <sub>4</sub> O <sub>12</sub> ](OH <sub>1.13</sub> O <sub>1.03</sub> ) · 3.4H <sub>2</sub> O	174
<b>Ba–H–Na–O–Si</b>	NaBa <sub>3</sub> [Si <sub>2</sub> O <sub>7</sub> ](OH)	96
<b>Ba–H–Nb–O–Si–Ti–Zn</b>	Ba <sub>2</sub> Zn(Ti,Nb) <sub>4</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>2</sub> (O,OH) <sub>4</sub> · 7H <sub>2</sub> O	167

Element system	Chemical formula	Page
<b>Ba–M–O–Si</b>	BaM <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> (M = Be, Mg, Mn, Co, Zn)	40, 52
	Ba <sub>2</sub> M <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> (M = Fe, Cu)	42
	Ba <sub>2</sub> MSi <sub>2</sub> O <sub>7</sub> (M = Be, Mg, Mn, Co, Cu, Zn)	52
<b>Ba–Mg–O–Si</b>	BaMg <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>	40
	Ba <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub>	29, 52
<b>Ba–Mn–O–Si</b>	BaMn <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>	40, 41, 44, 48, 56, 69, 72, 81
	Ba <sub>2</sub> MnSi <sub>2</sub> O <sub>7</sub>	52
<b>Ba–Mn–O–Si–Sr</b>	BaSr <sub>2</sub> Mn <sub>2</sub> <sup>3+</sup> O <sub>2</sub> [Si <sub>4</sub> O <sub>12</sub> ]	163, 166
	(Sr,Ba) <sub>4</sub> Mn <sub>2</sub> (Si <sub>2</sub> O <sub>7</sub> ) <sub>2</sub>	166
	Sr <sub>3</sub> BaMn <sub>2</sub> Si <sub>4</sub> O <sub>14</sub>	163
<b>Ba–Na–Nd–O–Si</b>	NaBaNdSi <sub>2</sub> O <sub>7</sub>	56
<b>Ba–Na–Si–O–Si</b>	Ba <sub>3</sub> NaSi <sub>2</sub> O <sub>7</sub>	56, 111
<b>Ba–O–Si–Ti</b>	Ba <sub>2</sub> TiSi <sub>2</sub> O <sub>8</sub>	38, 39, 52, 53, 56, 58, 60, 68, 81
	Ba <sub>2</sub> Ti <sub>1+x</sub> Si <sub>2-x</sub> O <sub>8</sub>	39, 49, 51, 84
<b>Ba–O–Si–V</b>	Ba <sub>1.5</sub> VOSi <sub>2</sub> O <sub>7</sub>	39, 44, 51, 56, 58, 73, 84
	Ba <sub>2</sub> VOSi <sub>2</sub> O <sub>7</sub>	39, 44, 56, 58, 73, 84
<b>Ba–O–Si–Zn</b>	BaZn <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>	40, 41, 56, 71
	Ba <sub>2</sub> ZnSi <sub>2</sub> O <sub>7</sub>	52
<b>Be–Ca–F–Na–O–R–Si</b>	(Ca, R)CaNa <sub>2</sub> Be <sub>2</sub> Si <sub>4</sub> O <sub>12</sub> (F, O) <sub>2</sub> (R = rare earth element)	57
<b>Be–Ca–F–Na–O–Si</b>	CaNaBeSi <sub>2</sub> O <sub>6</sub> F	40, 52, 54, 57
	Ca(Na,Ca)BeSi <sub>2</sub> O <sub>6</sub> F	52
<b>Be–Ca–H–Mg–Mn–O–Si</b>	Ca <sub>6</sub> Be <sub>4</sub> (Mn,Mg)Si <sub>6</sub> O <sub>22</sub> (OH) <sub>2</sub>	266
	Mn <sub>0.86</sub> Mg <sub>0.20</sub> Ca <sub>5.88</sub> Be <sub>4.00</sub> Si <sub>5.80</sub> O <sub>21.34</sub> (OH) <sub>2.40</sub>	273
<b>Be–Ca–H–Mn–O–Si</b>	MnCa <sub>6</sub> Be <sub>4</sub> [SiO <sub>4</sub> ] <sub>2</sub> [Si <sub>2</sub> O <sub>7</sub> ] <sub>2</sub> (OH) <sub>2</sub>	260, 273
<b>Be–Ca–O–Si</b>	Ca <sub>2</sub> BeSi <sub>2</sub> O <sub>7</sub>	29, 36, 38, 52, 55
<b>Be–Fe–O–Sc–Si–Y</b>	SiO <sub>2</sub> 45.45 %; Sc <sub>2</sub> O <sub>3</sub> 42.06 %; Y <sub>2</sub> O <sub>3</sub> 8.89 %; Fe <sub>2</sub> O <sub>3</sub> 2.83 %; BeO 0.51 %; ign 0.59 %	15
<b>Be–H–O–Si</b>	Be <sub>4</sub> Si <sub>2</sub> O <sub>7</sub> (OH) <sub>2</sub>	147, 149
<b>Be–K–Na–O–Si</b>	K <sub>2</sub> Na <sub>6</sub> Be <sub>4</sub> Si <sub>14</sub> O <sub>36</sub> · 9H <sub>2</sub> O	39, 52, 57
<b>Be–Na–O–Si</b>	Na <sub>2</sub> BeSi <sub>2</sub> O <sub>6</sub>	52
<b>Be–O–Si–Y</b>	Y <sub>2</sub> SiBe <sub>2</sub> O <sub>7</sub>	29, 43, 52, 57
<b>C–Ca–O–Si</b>	Ca <sub>5</sub> Si <sub>2</sub> O <sub>7</sub> (CO <sub>3</sub> ) <sub>2</sub>	142, 145, 147, 150
<b>C–H–K–M–Na–O–Si</b>	Na <sub>4</sub> K <sub>4</sub> C <sub>4</sub> □ <sub>2</sub> M <sub>8</sub> (Si <sub>4</sub> O <sub>12</sub> ) <sub>4</sub> (O,OH) <sub>8</sub> · nH <sub>2</sub> O	167
<b>Ca–Ce–Eu–Fe–Ho–K–La–Mg–Mn–Na–Nd–O–Pr–Si–Tb–Th–Ti–Y–Yb</b>	Si <sub>3.973</sub> Ti <sub>2.529</sub> Fe <sub>1.870</sub> Mn <sub>0.144</sub> Mg <sub>0.040</sub> Ca <sub>0.575</sub> Na <sub>0.037</sub> -K <sub>0.018</sub> Th <sub>0.143</sub> Y <sub>0.041</sub> La <sub>1.489</sub> Ce <sub>1.692</sub> Pr <sub>0.183</sub> Nd <sub>0.232</sub> -Eu <sub>0.005</sub> Tb <sub>0.014</sub> Ho <sub>0.006</sub> Yb <sub>0.009</sub> -O <sub>22</sub>	230

Element system	Chemical formula	Page
<b>Ca–Ce–F–H–Na–O–Si–Ti–Zr</b>	$(\text{Ca}, \text{Na}, \text{Ce})_{12}(\text{Ti}, \text{Zr})_2\text{Si}_7\text{O}_{25}(\text{OH})_6\text{F}_4$	166
<b>Ca–Ce–F–La–Na–Nb–O–Si</b>	$\text{Na}_3\text{Ca}_3(\text{Ce}, \text{La})\text{Nb}(\text{Si}_2\text{O}_7)_2\text{OF}_3$	166
<b>Ca–Ce–F–Na–O–Si–Ti</b>	$(\text{Na}, \text{Ca})_3(\text{Ca}, \text{Ce})_4\text{Ti}_4(\text{Si}_2\text{O}_7)_2(\text{O}, \text{F})_4$	161, 166
<b>Ca–Ce–Fe–La–O–Si–Sr–Ti–Zr</b>	$(\text{Sr}_2(\text{LaCe})_{1.5}\text{Ca}_{0.5})(\text{Fe}_{0.5}^{2+}\text{Fe}_{0.5}^{3+})(\text{Ti}, \text{Zr})_2\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Ca–Ce–Fe–Mg–O–Si–Th–Ti</b>	$(\text{Ca}, \text{Ce}, \text{Th})_4(\text{Mg}, \text{Fe})_2(\text{Ti}, \text{Fe})_3\text{O}_8(\text{Si}_2\text{O}_7)_2$	221
<b>Ca–Ce–La–Mg–Na–O–Si–Sr–Zn</b>	$\text{Na}_3(\text{Sr}, \text{Ca})(\text{Ce}, \text{La})(\text{Zn}, \text{Mg})\text{Si}_6\text{O}_{17}$	39, 52
<b>Ca–Ce–Na–O–P–Si</b>	$\text{Na}_3(\text{Ca}, \text{Ce})\text{PSiO}_7$	190, 198
<b>Ca–Cl–H–O–Si</b>	$\text{Ca}_{10}(\text{Si}_2\text{O}_7)_2(\text{SiO}_4)_4(\text{OH})_2\text{Cl}_2$	262, 266
<b>Ca–Co–Fe–Mg–O–Si–Sr–Zn</b>	$(\text{Ca}, \text{Sr})_2(\text{Mg}, \text{Co}, \text{Zn}, \text{Fe})\text{Si}_2\text{O}_7$	38
<b>Ca–Co–Fe–O–Si</b>	$\text{Ca}_2\text{Co}_{1-x}\text{Fe}_x\text{Si}_2\text{O}_7$	36, 48, 80
<b>Ca–Co–Mg–O–Si</b>	$\text{Ca}_2\text{Mg}_{1-x}\text{Co}_x\text{Si}_2\text{O}_7$	48, 67, 80
<b>Ca–Co–O–Si</b>	$\text{CaCoSiO}_4$	32
	$\text{CaCo}_2\text{Si}_2\text{O}_7$	36
	$\text{Ca}_2\text{CoSi}_2\text{O}_7$	29, 31-33, 38, 55, 58, 63
<b>Ca–Co–O–Si–Sr</b>	$(\text{Ca}_{1-x}\text{Sr}_x)_2\text{CoSi}_2\text{O}_7$	36, 48, 67
	$(\text{Sr}_{0.13}\text{Ca}_{0.87})_2\text{CoSi}_2\text{O}_7$	36, 55
<b>Ca–Cr–H–Mg–O–Si</b>	$\text{Ca}_2\text{MgCr}_2(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_2 \cdot \text{H}_2\text{O}$	266
<b>Ca–D–H–K–M–O–Si</b>	$\text{Ca}_2\text{K}_4\text{D}_4\text{M}_8(\text{Si}_4\text{O}_{12})_4(\text{OH}, \text{O})_8 \cdot n\text{H}_2\text{O}$	168
<b>Ca–F–Fe–H–Hf–Mg–Mn–Na–Nb–O–Si–Ta–Ti–Zr</b>	$\text{Na}_{2.71}(\text{Ca}, \text{Fe}, \text{Mn}, \text{Mg})_{8.17}(\text{Zr}, \text{Hf})_{1.97}(\text{Nb}, \text{Ta}, \text{Ti})_{1.96}\text{Si}_{8.16}\text{O}_{34}(\text{O}, \text{OH}, \text{F})$	154
	$\text{Na}_{3.96}(\text{Ca}, \text{Fe}, \text{Mn}, \text{Mg})_{8.10}(\text{Zr}, \text{Hf})_{1.94}(\text{Nb}, \text{Ta}, \text{Ti})_{1.94}\text{Si}_{8.18}\text{O}_{34}(\text{O}, \text{OH}, \text{F})$	154
<b>Ca–F–Fe–H–K–Mn–Na–Nb–O–Si–Ta–Ti–Zr</b>	$(\text{Na}_{2.75}\text{Ca}_{0.20}\text{K}_{0.03})(\text{Mn}_{2.43}\text{Fe}_{0.60})(\text{Ti}_{1.32}\text{Zr}_{0.38}\text{Nb}_{0.29}\text{Ta}_{0.01})(\text{Si}_{3.84}\text{Ti}_{0.15})\text{O}_{15}(\text{OH}_{1.40}\text{F}_{1.10}\text{O}_{0.50})$	150
<b>Ca–F–Fe–H–Mn–Na–Nb–O–R–Si–Ti–Zr</b>	$(\text{Na}_{1.40}\text{Ca}_{1.10}\text{Mn}_{0.09}\text{Fe}_{0.02}^{2+}\text{Fe}_{0.05}^{3+}\text{R}_{0.10})(\text{Zr}_{0.98}\text{Nb}_{0.02}\text{Ti}_{0.10})\text{Si}_2\text{O}_7(\text{O}_{0.30}(\text{OH})_{0.59}\text{F}_{1.30})$ (R = rare earth element)	150
<b>Ca–F–Fe–H–Mn–Na–Nb–O–Si–Zr</b>	$\text{Na}_2(\text{Mn}, \text{Ca}, \text{Fe})(\text{Zr}, \text{Nb})\text{Si}_2\text{O}_7(\text{O}, \text{OH}, \text{F})_2$	147
<b>Ca–F–Fe–Mg–Mn–Na–Nb–O–P–Si–Ti</b>	$\text{Na}_{13.47}(\text{Ca}_{1.60}\text{Mg}_{0.21})(\text{Mn}_{0.79}\text{Fe}_{0.11})(\text{Ti}_{2.67}\text{Nb}_{0.46})\text{P}_{3.94}\text{Si}_{4.00}(\text{O}_{33.19}\text{F}_{0.52})$	198
<b>Ca–F–Fe–Na–Nb–O–P–Si–Ti–Zr</b>	$\text{Na}_2(\text{Ti}, \text{Fe}, \text{Zr}, \text{Nb})_2\text{OF}[\text{Si}_2\text{O}_7] \cdot \text{Na}_5\text{CaF}[\text{PO}_4]_2$	190
<b>Ca–F–H–Mn–Na–O–Si–Ti–Zr</b>	$\text{Ca}_{3.5}\text{Na}_{2.5}(\text{Ti}, \text{Mn})\text{Zr}(\text{Si}_2\text{O}_7)_2(\text{O}, \text{OH}, \text{F})_4$	174
	$(\text{Na}, \text{Ca})_4\text{MnTiZr}(\text{Si}_2\text{O}_7)_2\text{O}_2(\text{F}, \text{OH})_2$	160, 166
<b>Ca–F–H–Na–Nb–O–Si</b>	$(\text{Na}, \text{Ca}, \text{H})_2\text{Nb}_2\text{Si}_2\text{O}_{10}(\text{OH}, \text{F})_2 \cdot \text{H}_2\text{O}$	147
<b>Ca–F–H–Na–Nb–O–Si–Ti</b>	$(\text{Ca}, \text{Na})_4(\text{Ti}, \text{Nb})_2\text{O}_4(\text{Si}_2\text{O}_7)(\text{F}, \text{OH})_2$	174

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<b>Ca–F–H–Na–Nb–O–Si–Zr</b>	$\text{Ca}_4\text{Na}_2\text{ZrNb}(\text{Si}_2\text{O}_7)_2(\text{O},\text{OH},\text{F})_4$	147
<b>Ca–F–H–Na–O–Si–Ti</b>	$(\text{Ca},\text{Na})_6\text{Ti}(\text{Si}_2\text{O}_7)_2(\text{F},\text{OH},\text{O})_4$	160, 166
	$\text{Ca}_4(\text{Ca}_{1.2}\text{Na}_{0.8})\text{NaTi}(\text{Si}_2\text{O}_7)_2(\text{F},\text{OH},\text{O})_4$	169, 174
<b>Ca–F–H–Na–O–Si–Ti–Zr</b>	$(\text{Ca},\text{Na})_6\text{TiZr}(\text{Si}_2\text{O}_7)_2(\text{F},\text{OH})_4$	160, 166
<b>Ca–F–H–O–Si</b>	$\text{Ca}_4\text{Si}_2\text{O}_7(\text{F},\text{OH})_2$	142, 147
	$\text{Ca}_5(\text{SiO}_4)_2(\text{F},\text{OH})_2$	142
<b>Ca–F–Mg–Mn–Na–Nb–O–P–Si–Ti–Zr</b>	$\text{Na}_2(\text{Ti},\text{Mn},\text{Zr},\text{Nb})_2\text{OF}[\text{Si}_2\text{O}_7]\cdot\text{Na}_6\text{Ca}_2(\text{Mg},\text{Mn})\text{-F}_2[\text{PO}_4]_3$	190
<b>Ca–F–Mn–Nb–O–Si</b>	$(\text{Ca},\text{Mn})\text{Nb}_2\text{Si}_2\text{O}_9(\text{O},\text{F})\cdot 3.5\text{H}_2\text{O}$	144
	$(\text{Ca},\text{Mn})\text{Nb}_2(\text{Si}_2\text{O}_7)(\text{O},\text{F})_3\cdot 3.5\text{H}_2\text{O}$	147
<b>Ca–F–Na–Nb–O–Si–Ti</b>	$(\text{Ca},\text{Na})_8(\text{Ti},\text{Nb})_4(\text{Si}_2\text{O}_7)_8\text{O}_8\text{F}_3$	161, 166
	$\text{Ca}_{4.72}\text{Na}_{3.28}\text{Ti}_{3.20}\text{Nb}_{0.80}(\text{Si}_2\text{O}_7)_2\text{O}_8\text{F}_3$	174
<b>Ca–F–Na–O–Si–Y–Zr</b>	$(\text{Na},\text{Ca})_4\text{Ca}_8(\text{Y},\text{Na})_2\text{Zr}_2(\text{Si}_2\text{O}_7)_4\text{O}_3\text{F}_5$	147
<b>Ca–F–Nb–O–Si</b>	$\text{Ca}_7\text{Nb}(\text{Si}_2\text{O}_7)_2\text{O}_3\text{F}$	147
<b>Ca–Fe–Ga–Mg–O–Si</b>	$\text{Ca}_{2.00}(\text{Mg}_{0.52}\text{Fe}_{0.28}^{3+}\text{Ga}_{0.20})_{\text{T1}}\text{-}(\text{Fe}_{0.14}^{3+}\text{Ga}_{0.34}\text{Si}_{1.52})_{\text{T2}}\text{O}_7$	57, 59
	$\text{Ca}_{2.00}(\text{Mg}_{0.62}\text{Fe}_{0.24}^{3+}\text{Ga}_{0.14})_{\text{T1}}\text{-}(\text{Fe}_{0.12}^{3+}\text{Ga}_{0.25}\text{Si}_{1.63})_{\text{T2}}\text{O}_7$	57, 59
	$\text{Ca}_2\text{MgSi}_2\text{O}_7\text{-Ca}_2\text{Fe}^{3+}\text{GaSiO}_7\text{-Ca}_2\text{Ga}_2\text{SiO}_7$	38, 46
<b>Ca–Fe–Ga–O–Si</b>	$\text{Ca}_{2.00}(\text{Fe}_{0.25}^{3+}\text{Ga}_{0.75})_{\text{T1}}\text{-}(\text{Fe}_{0.25}^{3+}\text{Ga}_{0.75}\text{Si}_{1.00})_{\text{T2}}\text{O}_7$	57, 59
	$\text{Ca}_2\text{Ga}_2\text{SiO}_7\text{-Ca}_2\text{Fe}^{3+}\text{GaSiO}_7$	38, 46
<b>Ca–Fe–H–K–Mg–O–Si</b>	$(\text{Ca},\text{K})_2\text{MgFe}^{3+}\text{Si}_3(\text{O},\text{OH})_{14}$	266
<b>Ca–Fe–H–K–Mn–Na–Nb–O–Si–Ti</b>	$(\text{Na}_{3.76}\text{K}_{0.24}\text{Ca}_{0.11}\text{Mn}_{0.03}\square_{3.86})(\text{Nb}_{8.76}\text{Ti}_{1.18}\text{Fe}_{\text{tr}}\square_{0.06})(\text{O}_{2.80}\text{OH}_{1.20})\text{Si}_8\text{O}_{24}\cdot 8\text{H}_2\text{O}$	174
<b>Ca–Fe–H–K–O–Si</b>	$(\text{Ca},\text{K})_2\text{Fe}^{2+}\text{Fe}^{3+}\text{Si}_3(\text{O},\text{OH})_{14}$	266
	$(\text{Ca},\text{K})_2\text{Fe}^{3+}\text{Fe}^{3+}\text{Si}_3(\text{O},\text{OH})_{14}$	266
<b>Ca–Fe–H–Mg–Mn–O–Si–Zn</b>	$(\text{Mg}_{11.32}\text{Fe}_{0.11}\text{Mn}_{28.95}\text{Ca}_{0.14}\text{Zn}_{2.13})\text{Si}_{16}\text{O}_{54.53}\text{-}(\text{OH})_{40.23}$	273
<b>Ca–Fe–H–Mn–O–Si</b>	$\text{CaFe}_{2-x}^{2+}\text{Mn}_x^{2+}\text{Fe}^{3+}[\text{Si}_2\text{O}_7/\text{O}/(\text{OH})]$	92, 98-100, 121, 129
	$\text{CaFe}_{1.81}\text{Mn}_{0.19}\text{Si}_2\text{O}_7\text{O}(\text{OH})$	111
	$\text{Fe}_{36.08}\text{Si}_{16.01}\text{Ca}_{9.33}\text{Mn}_{3.35}(\text{O}+\text{H})_{35.23}$	118
	$\text{Fe}_{38.37}\text{Si}_{15.97}\text{Ca}_{9.40}\text{Mn}_{0.89}(\text{O}+\text{H})_{35.36}$	118
	$\text{Fe}_{38.03}\text{Si}_{15.91}\text{Ca}_{9.40}\text{Mn}_{1.14}(\text{O}+\text{H})_{35.53}$	118
	$\text{Fe}_{39.24}\text{Si}_{15.93}\text{Ca}_{9.39}\text{Mn}_{0.36}(\text{O}+\text{H})_{35.08}$	118
<b>Ca–Fe–H–Na–O–Si–Ti–Zr</b>	$(\text{Ca},\text{Na},\text{Fe})_{12}(\text{Ti},\text{Zr})_2\text{Si}_7\text{O}_{25}(\text{OH})_6\text{F}_4$	161

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<b>Ca–Fe–H–O–Si</b>	$\langle \text{Ca} \rangle \{ \text{Fe}^{2+}(\text{A}), \text{Fe}^{3+}(\text{A}), \text{Fe}^{2+}(\text{B}) \} [\text{Si}_2]\text{O}_8(\text{OH})$	90
	$\text{CaFe}_3\text{O}(\text{Si}_2\text{O}_7)(\text{OH})$	106
<b>Ca–Fe–H–K–Mg–Mn–Na–Nb–O–P–Si–Ti–Zr</b>	$[(\text{Ti}_{1.7}\text{Fe}_{0.3}^{3+})\text{Na}_{1.1}\text{O}_4][(\text{Ti}_{1.3}\text{Nb}_{0.3}\text{Zr}_{0.15}\text{Mn}_{0.2}^{2+} - \text{Mg}_{0.05})(\text{Na}_{1.2}\text{Ca}_{0.1}\text{K}_{0.2})(\text{Si}_2\text{O}_7)_2][\text{Na}_{2.6}(\text{H}_2\text{PO}_4)_2]$	198
<b>Ca–Fe–Mg–Na–O–Si</b>	$\text{Ca}_2\text{MgSi}_2\text{O}_7 - \text{NaCaFe}^{3+}\text{Si}_2\text{O}_7$	38, 46
	$(\text{Na}_{0.47}\text{Ca}_{1.53})(\text{Mg}_{0.52}\text{Fe}_{0.48}^{3+})_{\text{T1}} - (\text{Fe}_{0.01}^{3+}\text{Si}_{1.99})_{\text{T2}}\text{O}_7$	57-59
<b>Ca–Fe–Mg–O–Si</b>	$\text{Ca}_2\text{Mg}_{1-x}\text{Fe}_x\text{Si}_2\text{O}_7$	31, 35, 46, 48, 65, 66
	$\text{Ca}_2\text{Mg}_{0.4}\text{Fe}_{0.6}\text{Si}_2\text{O}_7$	77
	$\text{Ca}_2(\text{Mg}_{0.55}\text{Fe}_{0.45})\text{Si}_2\text{O}_7$	33, 35, 55, 63
	$\text{Ca}_2\text{Mg}_{0.7}\text{Fe}_{0.3}\text{Si}_2\text{O}_7$	76
<b>Ca–Fe–Mn–Na–O–Si–Zr</b>	$\text{Na}_6(\text{Ca}, \text{Mn}, \text{Fe})\text{ZrSi}_6\text{O}_{18}$	166
<b>Ca–Fe–O–Si–Ti–Zr</b>	$\text{Ca}_3(\text{Zr}_{0.89}\text{Ti}_{0.11})(\text{Si}_{1.98}\text{Fe}_{0.01})\text{O}_9$	145, 150
<b>Ca–Ga–Nd–O–Si</b>	$(\text{Ca}_{2-x}\text{Nd}_x)\text{Ga}_{2+x}\text{Si}_{1-x}\text{O}_7$	50
<b>Ca–Ga–O–Si</b>	$\text{Ca}_2\text{Ga}_2\text{SiO}_7$	38, 55
<b>Ca–Ge–O–Si–Zn</b>	$\text{Ca}_2\text{Zn}(\text{Ge}, \text{Si})_2\text{O}_7$	29, 37
	$\text{Ca}_2\text{ZnGe}_{1.25}\text{Si}_{0.75}\text{O}_7$	37
	$\text{Ca}_2\text{ZnSi}_{0.75}\text{Ge}_{1.25}\text{O}_7$	55
	$\text{CaO–ZnO–SiO}_2\text{–GeO}_2$	37
<b>Ca–Ge–O–Zr</b>	$\text{Ca}_2\text{ZrGe}_2\text{O}_7$	34
<b>Ca–H–Hf–F–Fe–Mg–Mn–Na–Nb–O–Si–Ta–Ti–Zr</b>	$\text{Na}_{4.01}(\text{Ca}, \text{Fe}, \text{Mn}, \text{Mg})_{7.89}(\text{Zr}, \text{Hf})_2(\text{Nb}, \text{Ta}, \text{Ti})_{2.02} - \text{Si}_{8.15}\text{O}_{34}(\text{O}, \text{OH}, \text{F})$	154
<b>Ca–H–K–Na–Nb–O–Si</b>	$(\text{Na}, \text{Ca}, \text{K})_4\text{Ca}_2\text{Nb}_8(\text{Si}_4\text{O}_{12})_4(\text{O}, \text{OH})_8 \cdot 14\text{H}_2\text{O}$	167
<b>Ca–H–K–Na–Nb–O–Si–Ti</b>	$(\text{Ca}, \text{K}, \text{Na}, \square)_2(\text{Ti}, \text{Nb})_2(\text{Si}_4\text{O}_{12})(\text{OH}, \text{O})_2 \cdot 4\text{H}_2\text{O}$	167
<b>Ca–H–M–O–Si</b>	$\text{Ca}_2\text{M}_3^{3+}\text{Si}_3\text{O}_{12}(\text{OH})$ (M = Al, Fe, Mn)	208
<b>Ca–H–Mn–O–Si</b>	$\text{Ca}_2\text{Mn}_2\text{Si}_2\text{O}_8(\text{OH})_4 \cdot 9\text{H}_2\text{O}$	221
	$\text{Ca}_2\text{Mn}_2\text{Si}_4\text{O}_{11}(\text{OH})_4 \cdot 2\text{H}_2\text{O}$	221, 232
	$\text{Ca}_2\text{Mn}_3(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{OH})_3$	221, 232
	$\text{Ca}_2\text{Mn}_3\text{Si}_3\text{O}_{10}(\text{OH})_4$	221, 232
<b>Ca–H–Mn–O–Si (cont.)</b>	$\text{Ca}_8\text{Mn}_{12}[(\text{SiO}_4)_6(\text{Si}_3\text{O}_{10})_2(\text{OH})_{12}]$	212
<b>Ca–H–Na–O–Si</b>	$\text{Na}_2\text{Ca}_8\text{Si}_5\text{O}_{30}\text{H}_{22}$	263
<b>Ca–H–Nb–O–Si</b>	$\text{Ca}_4\text{Nb}_6\text{Si}_5\text{O}_{24}(\text{OH})_{10} \cdot 6\text{H}_2\text{O}$	147
<b>Ca–H–O–Si</b>	$(\text{CaSiO}_3)_3 \cdot \text{H}_2\text{O}$	262
	$\text{Ca}_2[\text{HSiO}_4]\text{OH}$	145
	$\text{Ca}_2\text{Si}_2\text{O}_5(\text{OH})_2 \cdot \text{H}_2\text{O}$	142, 147, 150
	$\text{Ca}_3\text{Si}_3\text{O}_8(\text{OH})_2$	262, 266, 270, 273
	$\text{Ca}_{5.86}\text{Si}_{2.02}\text{O}_{13}\text{H}_{6.21}$	150

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<b>Ca–H–O–Si (cont.)</b>	$\text{Ca}_6\text{Si}_2\text{O}_7(\text{OH})_6$	142, 145, 147, 150, 153
	$\text{Ca}_9\text{Si}_6\text{O}_{16}(\text{OH})_{10} \cdot 2\text{H}_2\text{O}$	263
	$\text{Ca}_9\text{Si}_6\text{O}_{16}(\text{OH})_{10} \cdot 6\text{H}_2\text{O}$	263, 266
	$\text{Ca}_9(\text{Si}_6\text{O}_{18}\text{H}_2)(\text{OH})_8 \cdot 2\text{H}_2\text{O}$	274
	$\text{Ca}_9(\text{Si}_6\text{O}_{18}\text{H}_2)(\text{OH})_8 \cdot 6\text{H}_2\text{O}$	274
<b>Ca–Hf–O–Si</b>	$\text{Ca}_3\text{HfSi}_2\text{O}_7$	145
	$\text{Ca}_3\text{HfSi}_2\text{O}_9$	144, 149
<b>Ca–K–Mn–O–Si–Ti</b>	$\text{Ca}_2\text{K}_4\text{Mn}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4\text{O}_8 \cdot n\text{H}_2\text{O}$	168
<b>Ca–M–O–Si</b>	$\text{Ca}_3\text{MSi}_2\text{O}_9$ (M = Hf, Zr)	144
<b>Ca–Mg–O–Si</b>	$\text{Ca}_{1.97}\text{Mg}_{1.00}\text{Si}_{2.01}\text{O}_7$	57, 58
	$\text{Ca}_2\text{MgSi}_2\text{O}_7$	29-31, 33-35, 38, 47, 48, 50-52, 55, 57-59, 61-64, 78
<b>Ca–Mg–O–Si–Sr</b>	$(\text{Ca}_{1-x}\text{Sr}_x)_2\text{MgSi}_2\text{O}_7$	34
	$\text{Ca}_2\text{MgSi}_2\text{O}_7\text{--Sr}_2\text{MgSi}_2\text{O}_7$	38
	$(\text{Sr}_{0.25}\text{Ca}_{0.75})_2\text{MgSi}_2\text{O}_7$	55
	$(\text{Sr}_{0.50}\text{Ca}_{0.50})_2\text{MgSi}_2\text{O}_7$	55
	$(\text{Sr}_{0.75}\text{Ca}_{0.25})_2\text{MgSi}_2\text{O}_7$	55
<b>Ca–Mg–O–Si–Zn</b>	$\text{Ca}_2\text{Mg}_{1-x}\text{Zn}_x\text{SiO}_7$	35, 48, 67
<b>Ca–Mn–Na–O–P–Si–Ti</b>	$\text{Na}_{14}\text{Ca}_2\text{Ti}_3\text{MnO}_4(\text{Si}_2\text{O}_7)_2(\text{PO}_4)_4$	188, 192
<b>Ca–Mn–O–Si</b>	$\text{Ca}_3\text{Mn}_2^{3+}\text{O}_2[\text{Si}_4\text{O}_{12}]$	163, 166, 174, 190
<b>Ca–Na–O–P–Si</b>	$\text{Na}_3\text{CaPSiO}_7$	190, 192, 198
<b>Ca–O–Si</b>	$\text{CaSiO}_3$	32, 37, 262
	$\text{CaSiO}_3 \cdot \text{H}_2\text{O}$	150
	$\text{Ca}_2\text{SiO}_4 \cdot \text{H}_2\text{O}$	142
	$\text{Ca}_3\text{Si}_2\text{O}_7$	90, 106
	$\text{Ca}_3\text{Si}_2\text{O}_7 \cdot \text{H}_2\text{O}$	147
	$\text{CaO--SiO}_2\text{--H}_2\text{O}$	142
	$3\text{CaO} \cdot \text{SiO}_2 \cdot 1.5\text{H}_2\text{O}$	142
	$9\text{CaO} \cdot 6\text{SiO}_2 \cdot 11\text{H}_2\text{O}$	263
<b>Ca–O–Si–V</b>	$\text{Ca}_2\text{VO}_2\text{Si}_2\text{O}_7$	29
<b>Ca–O–Si–Zn</b>	$\text{Ca}_{0.98}\text{Zn}_{1.96}\text{Si}_{1.84}\text{O}_{6.6} \cdot 1.13\text{H}_2\text{O}$	150
	$\text{CaZn}_2\text{Si}_2\text{O}_7 \cdot \text{H}_2\text{O}$	143, 147, 149
	$\text{Ca}_2\text{ZnSi}_2\text{O}_7$	31, 34, 35, 38, 52, 55, 58, 62, 65
<b>Ca–O–Si–Zr</b>	$\text{Ca}_{0.98}\text{Zr}_{0.98}\text{Si}_{2.03}\text{O}_7$	15
	$\text{CaZrSi}_2\text{O}_7$	5, 8
	$\text{Ca}_3\text{ZrSi}_2\text{O}_7$	145



Element system	Chemical formula	Page
<b>Ca–O–Si–Zr (cont.)</b>	$\text{Ca}_3\text{ZrSi}_2\text{O}_9$	144, 147, 149, 153
	$\text{CaO } 18.4\%; \text{ZrO}_2 \text{ } 40.3\%; \text{SiO}_2 \text{ } 40.8\%$	15
<b>Cd–O–Si–Sr</b>	$\text{Sr}_2\text{CdSi}_2\text{O}_7$	38
<b>Ce–Fe–La–O–Si–Sr–Ti–Zr</b>	$(\text{Sr,Ce,La})_4\text{Fe}(\text{Ti,Zr})_4\text{O}_8(\text{Si}_2\text{O}_7)_2$	221
<b>Ce–Fe–La–O–Si–Ti</b>	$(\text{Ce,La})_4(\text{Ti,Fe})_5\text{O}_8(\text{Si}_2\text{O}_7)_2$	221
	$(\text{Ce}_2\text{La}_2)\text{Fe}(\text{FeTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Ce–Fe–O–Si–Ti</b>	$\text{Ce}_4\text{Fe}(\text{FeTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Ce–Na–O–P–Si–Ti</b>	$\text{Na}_4\text{CeTiPSi}_7\text{O}_{22} \cdot 5\text{H}_2\text{O}$	166
<b>Ce–O–Si</b>	$\text{Ce}_2\text{Si}_2\text{O}_7$	11, 16
<b>Co–Ho–K–O–Si</b>	$\text{KHoCoSi}_2\text{O}_7$	42, 52, 56
<b>Co–La–Ni–O–Pr–Si–Ti</b>	$(\text{La}_3\text{Pr})\text{Ni}(\text{CoTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Co–La–O–Si–Ti</b>	$\text{La}_4\text{Co}(\text{CoTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Co–Nd–O–Si–Ti</b>	$\text{Co}_2\text{Nd}_4\text{Ti}_3\text{Si}_4\text{O}_{22}$	231
	$\text{Nd}_4\text{Co}(\text{CoTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Co–O–Pb–Si–Sn</b>	$\text{Pb}_2\text{CoSnSi}_2\text{O}_9$	198
<b>Co–O–Pb–Si–Ti</b>	$\text{Pb}_2\text{CoTiSi}_2\text{O}_9$	198
<b>Co–O–Pr–Si–Ti</b>	$\text{Pr}_4\text{Co}(\text{CoTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Co–O–Si–Sm–Ti</b>	$\text{Sm}_4\text{Co}(\text{CoTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Co–O–Si–Sr</b>	$\text{Sr}_2\text{CoSiO}_7$	55
	$\text{Sr}_2\text{CoSi}_2\text{O}_7$	58
<b>Cr–Cu–H–O–Pb–Si</b>	$\text{CuPb}_3(\text{CrO}_4)\text{SiO}_3(\text{OH})_4 \cdot 2\text{H}_2\text{O}$	190, 192, 198
<b>Cr–O–Pb–Si</b>	$\text{Pb}_2\text{Cr}_2\text{Si}_2\text{O}_9$	198
<b>Cu–Na–O–Si</b>	$\text{Na}_2\text{CuSi}_3\text{O}_7$	56
<b>Cu–O–Pb–Si</b>	$\text{Cu}_2\text{Pb}_2\text{Si}_5\text{O}_{14} \cdot 14\text{H}_2\text{O}$	190, 192, 198
<b>Cu–O–Pb–Si–Sn</b>	$\text{Pb}_2\text{CuSnSi}_2\text{O}_9$	198
<b>Cu–O–Si–Sr</b>	$\text{Sr}_2\text{CuSi}_2\text{O}_7$	38
<b>D–H–K–M–Na–O–Si</b>	$\text{Na}_4\text{K}_4\text{D}_2\text{M}_8(\text{Si}_4\text{O}_{12})_4(\text{OH},\text{O})_8 \cdot n\text{H}_2\text{O}$	168
	$\text{Na}_8\text{K}_8\text{D}_4\text{M}_{16}(\text{Si}_4\text{O}_{12})_8(\text{O},\text{OH})_{16} \cdot n\text{H}_2\text{O}$	168
<b>D–H–K–M–O–Si</b>	$\text{K}_4\text{D}_2\text{M}_8(\text{Si}_4\text{O}_{12})_4(\text{OH},\text{O})_8 \cdot n\text{H}_2\text{O}$	167
	$\text{K}_8\text{D}_4\text{M}_{16}(\text{Si}_4\text{O}_{12})_8(\text{OH},\text{O})_{16} \cdot n\text{H}_2\text{O}$	168
<b>D–H–M–O–Si</b>	$\text{D}_4\text{M}_8(\text{Si}_4\text{O}_{12})_4(\text{OH},\text{O})_8 \cdot n\text{H}_2\text{O}$	167
<b>Dy–Er–F–Gd–H–Ho–Lu–O–Si–Tm–Y–Yb</b>	$[\text{Y}_{2.70}\text{Yb}_{0.07}\text{Er}_{0.08}\text{Dy}_{0.05}(\text{Lu,Gd,Tm,Ho})_{0.03}]\text{Si}_{3.06}\text{O}_{10}\text{F}_{0.97}(\text{OH})_{0.03}$	273
<b>Dy–Er–Ho–Lu–O–Si–Tm–Y–Yb</b>	$(\text{Yb}_{1.43}\text{Lu}_{0.23}\text{Er}_{0.17}\text{Tm}_{0.08}\text{Y}_{0.05}\text{Dy}_{0.03}\text{Ho}_{0.02})\text{Si}_{1.99}\text{O}_7$	15
<b>Dy–O–Si</b>	$\text{Dy}_2\text{Si}_2\text{O}_7$	2, 5, 8, 10, 12, 13, 16, 17
<b>Er–O–Si</b>	$\text{Er}_2\text{Si}_2\text{O}_7$	2, 4-8, 13, 15, 16, 21, 23-26

Element system	Chemical formula	Page
<b>Eu–O–Si</b>	$\text{Eu}_2\text{Si}_2\text{O}_7$	5, 12
<b>F–Fe–La–O–Se–Si–Y</b>	$\text{FeY}_4(\text{Si}_2\text{O}_7)_2\text{F}_2\text{La}_4\text{Se}_3\text{Si}_2\text{O}_7$	8
<b>F–H–Mn–Na–Nb–O–Si–Ti–Zr</b>	$\text{Na}_3\text{Mn}_3(\text{Ti},\text{Zr},\text{Nb})_2(\text{Si}_2\text{O}_7)_2\text{O}_2(\text{OH},\text{F})_2$	144, 147
<b>F–H–Mn–Na–O–Si–Ti–Zr</b>	$\text{Na}_6\text{MnTi}(\text{Zr}_{1.5}\text{Ti}_{0.5})(\text{Si}_2\text{O}_7)_2\text{O}_2(\text{F},\text{OH})_2$	174
<b>F–H–O–Si–X</b>	$\text{X}_4[\text{Si}_2\text{O}_7](\text{O},\text{OH},\text{F})_2$ (X = Ca or another metallic cation)	144
<b>F–Na–Nb–O–P–Si–Ti</b>	$\text{Na}_5\text{TiNb}_2(\text{Si}_2\text{O}_7)_2\text{O}_2\text{F}_2 \cdot 2\text{Na}_3\text{PO}_4$	188, 192
	$\text{Na}_5\text{TiNb}_2(\text{Si}_2\text{O}_7)_2 \cdot 2\text{Na}_3\text{PO}_4 \cdot \text{F} \cdot 1.5\text{O}_2$	198
<b>F–Na–Nb–O–Si–Ti</b>	$\text{Na}_5\text{TiNb}_2(\text{Si}_2\text{O}_7)_2(\text{O},\text{F})_4 \cdot 5\text{H}_2\text{O}$	189, 192
<b>Fe–Ga–La–O–Si–Sr–Ti</b>	$(\text{La}_3\text{Sr})\text{Fe}(\text{GaTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Fe–H–K–Na–Nb–O–Si–Ti</b>	$\text{NaK}_3\text{Fe}(\text{Ti},\text{Nb})_4(\text{Si}_4\text{O}_{12})_2(\text{O},\text{OH})_4 \cdot 6\text{H}_2\text{O}$	168
<b>Fe–H–K–Na–O–Si–Ti</b>	$\text{Na}_4\text{K}_4\text{Fe}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{O},\text{OH})_8 \cdot n\text{H}_2\text{O}$	168
<b>Fe–H–Mg–Mn–O–Si</b>	$(\text{Mg},\text{Fe},\text{Mn})_{42}\text{Si}_{15}(\text{O},\text{OH})_{90}$	260
<b>Fe–H–Mg–O–Si</b>	$(\text{Mg},\text{Fe})_{21}\text{Si}_8\text{O}_{27}(\text{OH})_{20}$	266
<b>Fe–La–O–Si–Ti</b>	$\text{La}_4\text{Fe}(\text{FeTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Fe–Nd–O–Si–Ti</b>	$\text{Nd}_4\text{Fe}(\text{FeTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Fe–O–Pb–Si</b>	$\text{Pb}_2\text{Fe}_2\text{O}_2(\text{Si}_2\text{O}_7)$	190, 192, 198
<b>Fe–O–Pr–Si–Ti</b>	$\text{Pr}_4\text{Fe}(\text{FeTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Fe–O–Si–Sr</b>	$\text{Sr}_2\text{FeSi}_2\text{O}_7$	46
<b>Ga–O–Pb–Si</b>	$\text{Pb}_2\text{Ga}_2\text{Si}_2\text{O}_9$	198
<b>Gd–O–Si</b>	$\text{Gd}_2\text{Si}_2\text{O}_7$	1, 2, 12, 16
<b>H–K–Mg–Na–O–Si–Ti</b>	$\text{Na}_4\text{K}_4\text{Mg}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{O},\text{OH})_8 \cdot n\text{H}_2\text{O}$	168
	$\text{Na}_8\text{K}_8\text{Mg}_4\text{Ti}_{16}(\text{Si}_4\text{O}_{12})_8(\text{O},\text{OH})_{16} \cdot n\text{H}_2\text{O}$	168
<b>H–K–Mn–Na–O–Si–Ti</b>	$\text{Na}_4\text{K}_4\text{Mn}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{O},\text{OH})_8 \cdot n\text{H}_2\text{O}$	168
<b>H–K–Mn–O–Si–Ti</b>	$\text{K}_4\text{Mn}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{OH})_8 \cdot n\text{H}_2\text{O}$	167
<b>H–K–Na–Nb–O–Si–Sr–Ti–Zn</b>	$\text{NaSrKZn}(\text{Ti},\text{Nb})_4(\text{Si}_4\text{O}_{12})_2(\text{O},\text{OH})_4 \cdot 6\text{H}_2\text{O}$	168
<b>H–K–Na–Nb–O–Si–Ti</b>	$\text{Na}_{0.6}\text{K}_{1.5}(\text{Nb}_{0.6}\text{Ti}_{0.4})(\text{Nb}_{0.5}\text{Ti}_{0.5})(\text{Si}_4\text{O}_{12})(\text{O},\text{OH})_2 \cdot 1.6\text{H}_2\text{O}$	174
<b>H–K–Na–O–Si–Ti</b>	$\text{Na}_4\text{K}_4\text{K}_4\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{O},\text{OH})_8 \cdot 8\text{H}_2\text{O}$	167
<b>H–K–O–Si–Ti–Zn</b>	$\text{K}_4\text{Zn}_2\text{Ti}_8(\text{Si}_4\text{O}_{12})_4(\text{OH})_8 \cdot n\text{H}_2\text{O}$	167
<b>H–M–O–Si</b>	$\text{M}_7^{2+}(\text{O})(\text{OH})_8[\text{Si}_2\text{O}_8]$ (M = Mn, Mg)	273
<b>H–M–O–T</b>	$\text{M}_{42}\text{O}_6(\text{OH})_{40}(\text{T}_4\text{O}_{12})_4$	260
<b>H–Mg–Mn–O–Si–Zn</b>	$(\text{Mg},\text{Mn},\text{Zn})_{40}\text{Si}_{15}\text{O}_{50}(\text{OH})_{40}$	260
	$(\text{Mn},\text{Mg},\text{Zn})_{42}(\text{Si}_{12}\text{O}_{36})[\text{O}_6(\text{OH})_{48}]$	260
<b>H–Mg–O–Pb–Si</b>	$\text{Mg}_2\text{Pb}_2\text{Si}_2\text{O}_7(\text{OH})_2$	192

Element system	Chemical formula	Page
<b>H–Mn–O–Si</b>	$\text{Mn}_{21}\text{O}_3(\text{Si}_4\text{O}_{12})_2(\text{OH})_{20}$	260, 266
<b>H–Mn–O–Si–Sr</b>	$\text{SrMn}_2(\text{Si}_2\text{O}_7)(\text{OH}_2)\cdot\text{H}_2\text{O}$	96, 106, 108, 111
<b>H–Mn–O–Si–V</b>	$\text{Mn}_6[\text{VSi}_5\text{O}_{18}(\text{OH})]$	260
<b>H–Na–Nb–O–Si</b>	$(\text{Na},\square)_6\text{Nb}_4(\text{Si}_4\text{O}_{12})_2(\text{O},\text{OH})_4\cdot n\text{H}_2\text{O}$	162
	$\text{Na}_{8-x}\text{Nb}_4(\text{Si}_4\text{O}_{12})(\text{O},\text{OH})_4\cdot n\text{H}_2\text{O}$	167
<b>H–Na–Nb–O–Si–Ti</b>	$\text{Na}(\text{Nb},\text{Ti})\text{Si}_2\text{O}_6(\text{O},\text{OH})\cdot 2\text{H}_2\text{O}$	192
	$\text{Na}_{3-x}(\text{Ti},\text{Nb})_2[\text{Si}_4\text{O}_{12}](\text{O},\text{OH})_2\cdot 3\dots 4\text{H}_2\text{O}$	168
<b>H–Na–O–Si–Ti</b>	$(\text{Na},\square)_6\text{Ti}_4(\text{Si}_4\text{O}_{12})_2(\text{O},\text{OH})_4\cdot n\text{H}_2\text{O}$	162
	$\text{Na}_{8-x}\text{Ti}_4(\text{Si}_4\text{O}_{12})(\text{O},\text{OH})_4\cdot n\text{H}_2\text{O}$	167
<b>H–Na–O–Si–Zr</b>	$\text{NaZrSi}_2\text{O}_6(\text{OH})$	259, 266
	$(\text{Na},\text{H})_2\text{ZrSi}_2\text{O}_7$	274
<b>H–O–Si–Y</b>	$\text{Y}_3(\text{Si}_3\text{O}_{10})(\text{OH})$	263, 266
<b>H–O–Si–Zn</b>	$\text{Zn}_4\text{Si}_2\text{O}_7(\text{OH})_2\cdot\text{H}_2\text{O}$	143, 147, 150
<b>H–O–W–X–Y–Z</b>	$\text{W}_8\text{X}_4\text{Y}_8\text{Z}_{12}\text{O}_{56-n}(\text{OH})_n$ (W = Ca; X and Y divalent and trivalent cations; Z = Si)	261
<b>Ho–O–Si</b>	$\text{Ho}_2\text{Si}_2\text{O}_7$	3-5, 13, 16
<b>In–O–Pb–Si</b>	$\text{Pb}_2\text{In}_2\text{Si}_2\text{O}_9$	191, 198
<b>In–O–Si</b>	$\text{In}_2\text{Si}_2\text{O}_7$	1, 5, 7, 8, 11, 14, 26
<b>K–Mn–Nb–O–Si</b>	$\text{K}_8\text{Mn}_4\text{Nb}_{16}(\text{Si}_4\text{O}_{12})_8\text{O}_{16}\cdot n\text{H}_2\text{O}$	168
<b>K–Na–Nb–O–Si</b>	$(\text{K},\text{Na})_{12-x}\text{Nb}_8(\text{Si}_4\text{O}_{12})_4\text{O}_8\cdot n\text{H}_2\text{O}$	167
<b>K–Nb–O–Si</b>	$\text{K}_2(\text{NbO})_2\text{Si}_4\text{O}_{12}$	51
<b>K–Nb–O–Si–Zn</b>	$\text{K}_8\text{Zn}_4\text{Nb}_{16}(\text{Si}_4\text{O}_{12})_8\text{O}_{16}\cdot n\text{H}_2\text{O}$	168
<b>K–O–Si–Zr</b>	$\text{K}_2\text{ZrSi}_2\text{O}_7$	259, 266
<b>La–Mg–O–Si–Ti</b>	$\text{La}_4\text{Mg}(\text{MgTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
	$\text{Mg}_4\text{La}_8\text{Ti}_6\text{Si}_8\text{O}_{44}$	221
<b>La–Nd–Ni–O–Si–Ti</b>	$(\text{La}_2\text{Nd}_2)\text{Ni}(\text{NiTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>La–Ni–O–Pr–Si–Ti</b>	$(\text{La}_2\text{Pr}_2)\text{Ni}(\text{NiTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>La–Ni–O–Si–Ti</b>	$\text{La}_4\text{Ni}(\text{NiTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>La–O–Se–Si</b>	$\text{La}_4\text{Se}_3\text{Si}_2\text{O}_7$	8, 14
<b>La–O–Si</b>	$\text{La}_2\text{Si}_2\text{O}_7$	7, 11, 15, 16
<b>La–Se–Si–O</b>	$\text{La}_4\text{Se}_3\text{Si}_2\text{O}_7$	1, 5
<b>Li–O–Si</b>	$\text{Li}_2\text{Si}_3\text{O}_7$	43, 52, 56, 57
	$\text{Li}_6[\text{Si}_2\text{O}_7]$	43, 52, 57
<b>Lu–Na–O–Si</b>	$\text{Na}_3\text{LuSi}_2\text{O}_7$	56
<b>Lu–O–Si</b>	$\text{Lu}_2\text{Si}_2\text{O}_7$	1, 3, 4, 7, 14, 16, 26
<b>M–O–Pb–Si</b>	$\text{Pb}_2\text{M}_2^{3+}\text{Si}_2\text{O}_9$	191
	$\text{Pb}_2\text{M}_2\text{O}_2(\text{Si}_2\text{O}_7)$ (M = Cr, Mn, Sc, In, Ga, MgSn, CoSn, etc.)	192

Element system	Chemical formula	Page
<b>Mg–La–O–Si–Ti</b>	$\text{Mg}_2\text{La}_4\text{Ti}_3\text{Si}_4\text{O}_{22}$	229
<b>Mg–Nd–O–Si–Ti</b>	$\text{Mg}_2\text{Nd}_4\text{Ti}_3\text{Si}_4\text{O}_{22}$	231
	$\text{Mg}_4\text{Nd}_8\text{Ti}_6\text{Si}_8\text{O}_{44}$	223
<b>Mg–O–Pr–Si–Ti</b>	$\text{Pr}_4\text{Mg}_2\text{Ti}_3\text{Si}_4\text{O}_{22}$	211, 229, 231
<b>Mg–O–Si–Sr</b>	$\text{Sr}_2\text{MgSi}_2\text{O}_7$	29, 31, 34, 38, 52, 57
<b>Mn–Na–O–Si</b>	$\text{Na}_2\text{Mn}_2\text{Si}_2\text{O}_7$	43, 44, 52, 56, 58, 74
<b>Mn–O–Pb–Si</b>	$\text{Pb}_2\text{Mn}_2(\text{Si}_2\text{O}_7)_2\text{O}_2$	190, 192, 198
<b>Mn–O–Si–Sr</b>	$\text{Sr}_2\text{MnSi}_2\text{O}_7$	29
<b>N–O–R–Si</b>	$\text{R}_2\text{Si}_3\text{O}_3\text{N}_4$ (R = rare-earth; Y)	42, 52
<b>N–O–Si–Sm</b>	$\text{Sm}_2\text{Si}_3\text{O}_3\text{N}_4$	42
<b>N–O–Si–Y</b>	$\text{Y}_2\text{Si}_3\text{O}_3\text{N}_4$	42, 48, 52, 54, 57, 59, 72
<b>N–O–Si–Yb</b>	$\text{Yb}_4\text{Si}_2\text{O}_7\text{N}_2$	3
<b>Na–Nb–O–Si–Ti</b>	$\text{Na}_3(\text{Ti},\text{Nb})_4\text{O}_4(\text{Si}_2\text{O}_7)_2 \cdot 4\text{H}_2\text{O}$	188, 192
<b>Na–O–P–Si–Ti</b>	$\text{Na}_5\text{Ti}_2\text{O}_2(\text{Si}_2\text{O}_7)(\text{PO}_4)$	187, 192, 197
<b>Na–O–Sc–Si</b>	$\text{Na}_3\text{ScSi}_2\text{O}_7$	14, 56
<b>Na–O–Sc–Si–Y</b>	$\text{Na}_3(\text{YSc})\text{Si}_2\text{O}_7$	43
<b>Na–O–Se–Ti</b>	$\text{Na}_2\text{Ti}_2\text{O}_2\text{Se}_2\text{O}_7$	187
<b>Na–O–Si</b>	$\text{Na}_2\text{Si}_3\text{O}_7$	43, 52, 56, 59
	$\text{Na}_2\text{Si}_3\text{O}_7 \cdot \text{H}_2\text{O}$	56
<b>Na–O–Si–Ti–V</b>	$\text{Na}_5\text{Ti}_2\text{O}_2(\text{Si}_2\text{O}_7)(\text{VO}_4)$	187, 190, 192, 197, 201
<b>Na–O–Si–Tm</b>	$\text{Na}_3\text{TmSi}_2\text{O}_7$	43
<b>Na–O–Si–Y</b>	$\text{Na}_3\text{YSi}_2\text{O}_7$	56
<b>Na–O–Si–Zr</b>	$\text{Na}_2\text{ZrSi}_2\text{O}_7$	259, 266, 273
<b>Nd–Ni–O–Si–Ti</b>	$\text{Nd}_4\text{Ni}(\text{NiTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>Nd–O–Si</b>	$\text{Nd}_2\text{Si}_2\text{O}_7$	1, 2, 9, 10, 12, 16, 17
<b>Ni–O–Pb–Si–Sn</b>	$\text{Pb}_2\text{NiSnSi}_2\text{O}_9$	198
<b>Ni–O–Pb–Si–Ti</b>	$\text{Pb}_2\text{NiTiSi}_2\text{O}_9$	198
<b>Ni–O–Pr–Si–Ti</b>	$\text{Ni}_2\text{Pr}_4\text{Ti}_3\text{Si}_4\text{O}_{22}$	229, 231
<b>Ni–O–Si–Sm–Ti</b>	$\text{Sm}_4\text{Ni}(\text{NiTi})\text{Ti}_2\text{Si}_4\text{O}_{22}$	231
<b>O–P–Si</b>	$\text{SiP}_2\text{O}_7$	43
<b>O–Pb–S–Si–Zn</b>	$\text{Pb}_{3.87}\text{Zn}_{2.01}\text{Si}_{3.10}\text{S}_{0.98}\text{O}_{15}$	198
	$\text{Zn}_2\text{Pb}_4(\text{SiO}_4)(\text{Si}_2\text{O}_7)(\text{SO}_4)$	190, 192
<b>O–Pb–Sc–Si</b>	$\text{Pb}_2\text{Sc}_2\text{Si}_2\text{O}_9$	191, 198, 205
<b>O–Pr–Si</b>	$\text{Pr}_2\text{Si}_2\text{O}_7$	2, 3, 5, 8, 12, 16, 21
<b>O–R–Si</b>	$\text{R}_2\text{Si}_2\text{O}_7$ (R = Dy, Ho, Er, Tm)	5
	$\text{R}_2\text{Si}_2\text{O}_7$ (R = Nd, Gd, Er, Yb)	5
	$\text{R}_2\text{Si}_2\text{O}_7$ (R = Sc, Y, In)	1, 8
	$\text{R}_2\text{Si}_2\text{O}_7$ (R = Sc, Y, La)	7

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<b>O –R –Si (cont.)</b>	$R_2Si_2O_7$ (R = Lu, In, Sc, Yb)	7
	$R_2Si_2O_7$ (R = Tm, Yb, Lu)	1
	$R_2Si_2O_7$ (R = Nd, Sm, Eu, Gd)	1, 2
	$R_2Si_2O_7$ (R = Er, Pr, Yb)	21
	$R_2Si_2O_7$ (R = rare earth element)	17, 22
	$R_2Si_2O_7$ (R = La...Er)	3
<b>O –S –Si–Sm</b>	$Sm_4S_3Si_2O_7$	5, 8, 14
<b>O –Sc–Si</b>	$Sc_2Si_2O_7$	1, 5, 7, 8, 11, 16
<b>O –Sc–Si–Y</b>	$(Sc_{1-x}Y_x)_2Si_2O_7$	5, 22
	$Sc_2Si_2O_7$ – $Y_2Si_2O_7$	5
	$(Sc,Y)_2Si_2O_7$	8
<b>O –Si–Sm</b>	$Sm_2Si_2O_7$	1, 2, 5
<b>O –Si–Sr–Ti</b>	$Sr_2TiSi_2O_8$	38, 50, 56
<b>O –Si–T –X</b>	$X_2T1Si_2O_7$ (X = Ca, Sr; T1 = Mg, Co, Zn)	42
<b>O –Si–Tb</b>	$Tb_2Si_2O_7$	12
<b>O –Si–Th–Y</b>	$(Th,Y)_2Si_2O_7$	4
<b>O –Si–Ti</b>	$Ti_3Si_4O_{22}$	231
<b>O –Si–Tm</b>	$Tm_2Si_2O_7$	1, 3-5, 13, 16
<b>O –Si–Y</b>	$Y_2Si_2O_7$	1, 2, 4, 5, 7, 8, 14-16, 25, 263
<b>O –Si–Y –Yb</b>	$(Y,Yb)_2Si_2O_7$	8
<b>O –Si–Yb</b>	$Yb_2Si_2O_7$	1, 2, 4, 5, 7, 8, 13, 16, 21
<b>O –Si–Zn</b>	$Zn_2SiO_4$	143
	$Zn_4Si_2O_7(OH)_2$	143
<b>O –T –X</b>	$X_2T1(T2)_2O_7$ (X = Ca, Sr, Ba, Pb, Na, Y, Er, Tb); T1 = Be, Mg, $Mn^{2+}$ , $Fe^{2+}$ , Co, Cu, Zn, Cd, Al, $Fe^{3+}$ , Ga, Si; T2 = Si, Ge, Al, $Fe^{3+}$ , Ga, Be)	29

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