

t-o layers

Table 22.6. Kaolin-serpentine group

<i>Kaolin sub-group dioctahedral</i>	dickite	$\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$
	halloysite (7 Å)	$\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$
	halloysite (10 Å)	$\text{Al}_4\text{Si}_4\text{O}_{10}(\text{OH})_8 \cdot 4\text{H}_2\text{O}$
	kaolinite	$\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$
	nacrite	$\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$
	odinite	$(\text{Fe}^{3+}, \text{Mg}, \text{Al}, \text{Fe}^{2+}, \text{Ti}, \text{Mn})_5(\text{Si}, \text{Al})_4\text{O}_{10}(\text{OH})_8$
<i>Serpentine-antigorite-related subgroup, trioctahedral</i>	antigorite	$\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$
<i>Serpentine-lizardite-related subgroup, trioctahedral</i>	caryopilite*	$(\text{Mn}, \text{Mg}, \text{Zn}, \text{Fe})_3(\text{Si}, \text{As})\text{O}_5(\text{OH}, \text{Cl})_4$
	lizardite	$\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$
	nepouite	$(\text{Ni}, \text{Mg})_3\text{Si}_2\text{O}_5(\text{OH})_4$
	greenalite*	$(\text{Fe}^{2+}, \text{Fe}^{3+})_{2-3}\text{Si}_2\text{O}_5(\text{OH})_4$
<i>Serpentine-amesite-related subgroup, trioctahedral</i>	amesite	$(\text{Mg}, \text{Al})_3(\text{Si}, \text{Al})\text{O}_5(\text{OH})_4$
	berthierine	$(\text{Fe}^{2+}, \text{Fe}^{3+}, \text{Al})_3(\text{Si}, \text{Al})_2\text{O}_5(\text{OH})_4$
	brindleyite	$\text{Ni}_2\text{Al}(\text{AlSi})\text{O}_5(\text{OH})_4$
	fraipontite	$(\text{Zn}, \text{Cu}, \text{Al})_3(\text{Si}, \text{Al})_2\text{O}_5(\text{OH})_4$
	kellyite	$(\text{Mn}^{2+}, \text{Mg}, \text{Al})_3(\text{Si}, \text{Al})_2\text{O}_5(\text{OH})_4$
	manandonite	$\text{Li}_2\text{Al}_4(\text{Si}_2\text{AlB})\text{O}_{10}(\text{OH})_8$
<i>Serpentine-chrysotile-related subgroup, trioctahedral</i>	cronstedtite	$\text{Fe}^{2+}_2\text{Fe}^{3+}(\text{SiFe}^{3+})\text{O}_5(\text{OH})_4$
	clinochrysotile	$\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$
	orthochrysotile	$\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$
	parachrysotile	$\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$
	pecoraite	$\text{Ni}_3\text{Si}_2\text{O}_5(\text{OH})_4$

*These minerals are grouped here according to their Dana classification (Nickel et al., 1997); however, most workers consider them to be modulated 1:1 structures, quite unlike lizardite.