

Copy of a printed table of the structural data of minerals in clay referenced as "Structural data of minerals (Clay)"

Contributors

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	4 OH -4 4 Si +16 6 O -12		2 OH -10 4 Si +16 6 O -12	○ - O ● - OH	
(i) PYROPHYLLITE AND MONTMORILLONITE (IDEAL CASE)			(j) TALC		
	6 O -12 4 Si +16 4 O + 2 OH -10 4 Al +12 4 O + 2 OH -10 4 Si +16 6 O -12		6 O -12 4 Si +16 4 O + 2 OH -10 6 Mg +12 4 O + 2 OH -10 4 Si +16 6 O -12		
(k) NONTRONITE			(l) MICA		
	6 O -12 4 Si +16 4 O + 2 OH -10 4 Fe ⁺⁺⁺ +12 4 O + 2 OH -10 4 Si +16 6 O -12		1 K +1 6 O -12 3 Si + 1 Al +15 4 O + 2 OH -10 4 Al +12 4 O + 2 OH -10 3 Si + 1 Al +15 6 O -12 1 K +1		
(m) MONTMORILLONITE (SUBSTITUTED)					
	6 O -12 4 Si +16 4 O + 2 OH -10 3 Al + 1 Mg +11 4 O + 2 OH -10 4 Si +16 6 O -12				<ul style="list-style-type: none"> • - Si ● - Al, Fe⁺⁺⁺ ● - Mg ○ - O ⊙ - OH ⊙ - K

FIG. 25.3. Structural data of clay minerals (after Hauser and Grim). All atoms have been projected into one plane. The three sections in each sub-figure ((a)-(m)) show respectively the unit cell of the crystal lattice, the number and type of atom or group in every lattice plane, and the amount of available or needed electrons in every sheet. If the (+) and (-) in the third column are equal the lattice framework is electrically neutral, if not, it carries a charge.