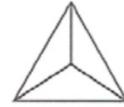


## PETIT PENSE-BETE SUR LES FAMILLES PRINCIPALES DE SILICATES

### NÉOSILICATES

Tétraèdres isolés  
[Si O<sub>4</sub>]



#### Péridots

Forstérite	Mg <sub>2</sub> SiO <sub>4</sub>	O	Mag bas
Fayalite	Fe <sub>2</sub> SiO <sub>4</sub>	O	et ultrabas

#### Silicates d'alumine

Andalousite		O	Met
Sillimanite	Al <sub>2</sub> OSiO <sub>4</sub>	O	Met
Disthène		T	Met
Staurotide	(Al <sub>2</sub> OSiO <sub>4</sub> ) <sub>2</sub> Fe(OH) <sub>2</sub>	M	Met
Chloritoïde	(Fe,Mg) <sub>2</sub> Al <sub>4</sub> O <sub>2</sub> [SiO <sub>4</sub> ] <sub>2</sub> (OH)		Met
Grenats	R <sub>3</sub> <sup>2+</sup> R <sub>2</sub> <sup>3+</sup> [SiO <sub>4</sub> ] <sub>2</sub>	C	Met, Mag ultrabas

où R<sup>2+</sup> = Fe<sup>2+</sup>, Mg<sup>2+</sup>, Mn<sup>2+</sup>, Ca<sup>2+</sup>  
R<sup>3+</sup> = Fe<sup>3+</sup>, Al<sup>3+</sup>, Cr<sup>3+</sup>

### INOSILICATES

Tétraèdres en chaînes

#### ► Pyroxènes

Chaîne simple de tétraèdres  
[SiO<sub>3</sub>]<sup>2-</sup>



#### Orthopyroxènes

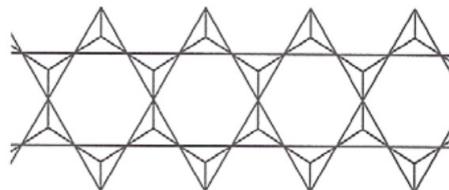
Enstatite	Mg <sub>2</sub> Si <sub>2</sub> O <sub>6</sub>	}	O	Mag, Met
Hypersthènes	composition intermédiaire			
Orthoferrosilite	Fe <sub>2</sub> Si <sub>2</sub> O <sub>6</sub>			

#### Clinopyroxènes

Diopside	CaMgSi <sub>2</sub> O <sub>6</sub>	}	M	Mag, Met
Augites	composition intermédiaire			
Hedenbergite	CaFeSi <sub>2</sub> O <sub>6</sub>			
Aegyrine	NaFeSi <sub>2</sub> O <sub>6</sub>			
Jadéite	NaAlSi <sub>2</sub> O <sub>6</sub>			

#### ► Amphiboles

Chaîne double de tétraèdres  
période 2 : [Si<sub>8</sub> O<sub>22</sub>]<sup>12-</sup>

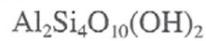


Anthophyllite	(Mg,Fe) <sub>7</sub> (Si <sub>4</sub> O <sub>11</sub> ) <sub>2</sub> (OH) <sub>2</sub>	O	Mag
Trémolite	Ca <sub>2</sub> Mg <sub>5</sub> (Si <sub>4</sub> O <sub>11</sub> ) <sub>2</sub> (OH) <sub>2</sub>	M	

## PHYLLOSILICATES

Tétraèdres en couches

Pyrophyllite

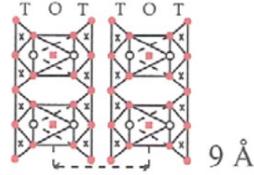
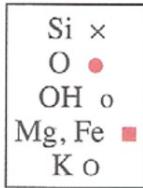


M Met

Talc



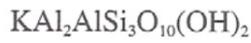
M Met



T =	Tétraèdre
O =	Octaèdre

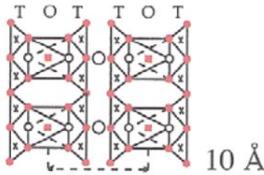
### Micas

Muscovites

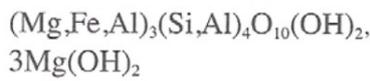


M Met, Mag

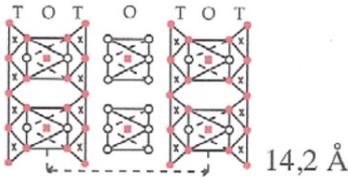
Biotites



### Chlorites



M Mag, Met

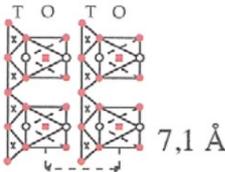


### Argiles

Kaolinite



M Sed

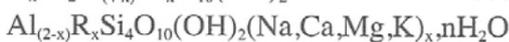


Illites

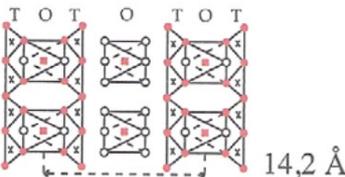


M Sed

Montmorillonites



Vermiculites



Serpentines



M-O Mag

## TECTOSILICATES

Tous les tétraèdres sont liés à d'autres tétraèdres

Quartz		O-H	Mag, Met, Sed
Tridymite	Si O <sub>2</sub>	H	Mag
Cristobalite		C	Mag, Met
Coesite			

### Feldspaths

Feldspaths alcalins

Orthose	KAlSi <sub>3</sub> O <sub>8</sub>	T	Mag, Met, Sed
Albite	NaAlSi <sub>3</sub> O <sub>8</sub>	T	

Plagioclases

Albite	NaAlSi <sub>3</sub> O <sub>8</sub>	T	Mag, Met, Sed
Anorthite	CaAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub>	T	Mag, Met