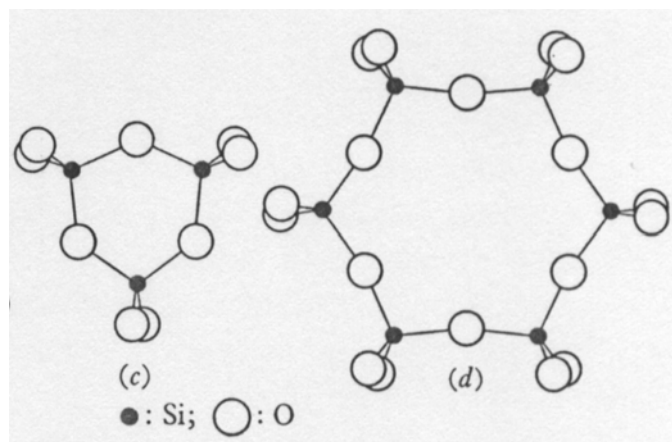


### III. CIKLOSILIKATI obročasti

- Zaprti obroči iz  $\text{SiO}_4$  tetraedrov:
  - 3 -  $[\text{Si}_3\text{O}_9]^{6-}$
  - 4 -  $[\text{Si}_4\text{O}_{12}]^{8-}$
  - 6 -  $[\text{Si}_6\text{O}_{18}]^{12-}$
  - in  $[\text{BO}_3]^{3-}$ ,  $[\text{OH}]^-$  skupine
- $\text{O}/\text{Si} = 3/1 \rightarrow [\text{SiO}_3]^{2n-}$

Slika:



Ciklowollastonitova skupina:  $\text{Ca}_3[\text{Si}_3\text{O}_9]$

Aksinitova skupina:  $\text{Ca}_2(\text{Fe}, \text{Mn})\text{Al}_2[(\text{BO}_3)(\text{Si}_4\text{O}_{12})(\text{OH})]$

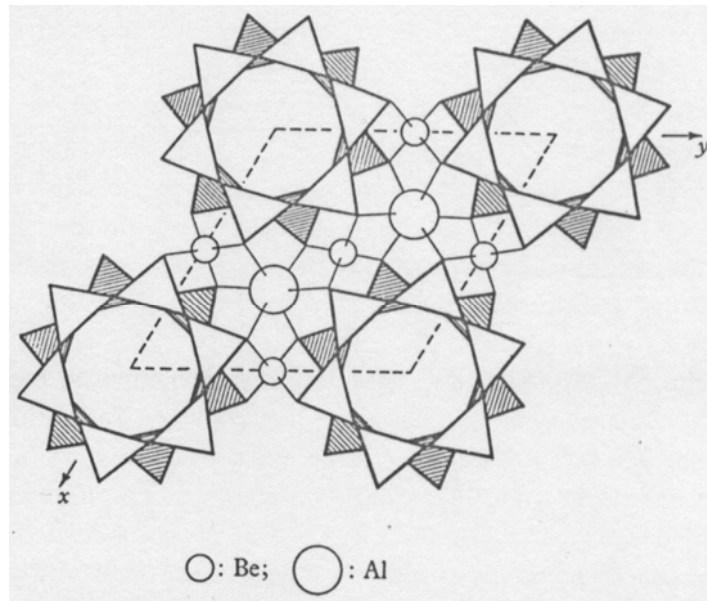
Beril – cordieritova skupina:  $\text{Al}_2\text{Be}_3[\text{Si}_6\text{O}_{18}]$

Turmalinova skupina:  $\text{Na}(\text{Li}, \text{Al})_3\text{Al}_6[(\text{BO}_3)_3(\text{Si}_6\text{O}_{18})(\text{OH})_4]$

Dioptazova skupina:  $\text{Cu}_6[(\text{Si}_6\text{O}_{18})] \cdot 6\text{H}_2\text{O}$

**Struktura berila:**  $\text{Be}_3^{(4)}\text{Al}_2^{(6)}[\text{Si}_6\text{O}_{18}]$

Slika:



**Struktura cordierita:**  $\text{Al}_3\text{Mg}_2[\text{AlSi}_5\text{O}_{18}]$   
(nadomeščanja)