

斜長石(plagioclase)固溶体



斜長石の累帯構造

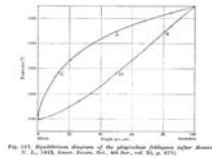
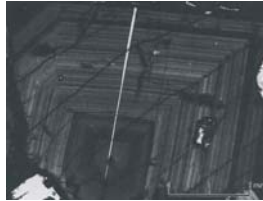
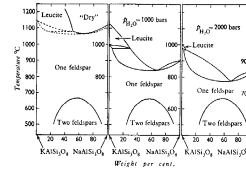


Fig. 125. Equilibrium diagram of the plagioclase solid solution system.

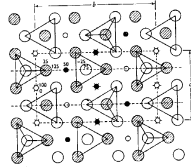
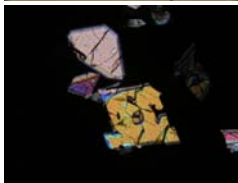
カリ長石のパーサイト構造



離溶組織 (Exsolution texture) の一種



かんらん石(olivine) $(\text{Mg,Fe})_2\text{SiO}_4$



Fe-SiO₂系

かんらん石(ol)の周縁の斜方輝石(opx)の反応線

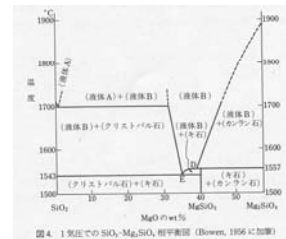
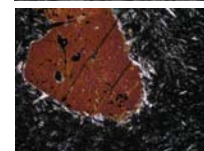
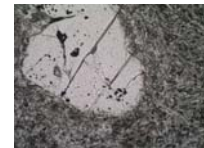
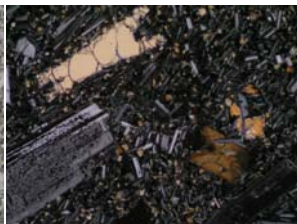
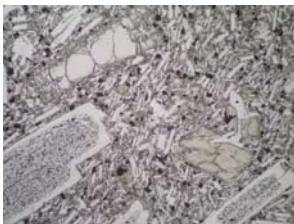


図4 1 気圧での SiO₂-Mg₂SiO₄ 相平衡図 (Bowen, 1956 に加筆)



玄武岩: かんらん石+普通輝石+斜長石



斜方輝石(orthopyroxene) $(\text{Mg,Fe})\text{SiO}_3$



輝石 (pyroxene) 固溶体

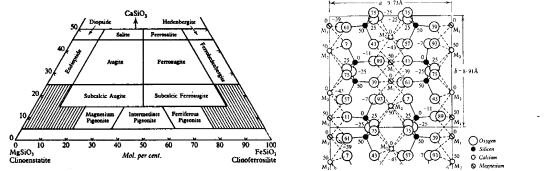
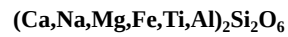
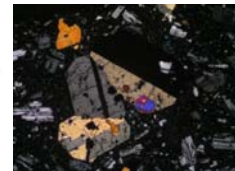
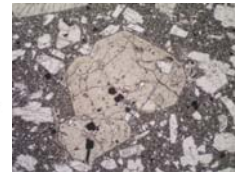
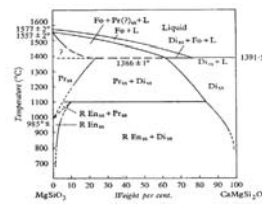
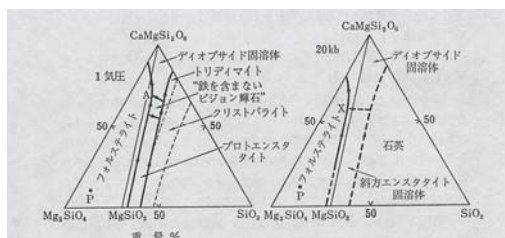


Fig. 36. Idealized structure of diopside as viewed along the c direction. Atoms occupying one another have been slightly displaced (after Warren, B. E. & Bragg, W. L., 1928, Zett. Krist., vol. 69, p. 168).

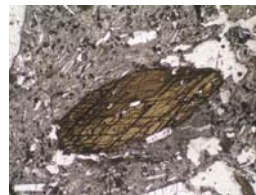
普通輝石 (augite): $\text{Ca}(\text{Mg}, \text{Fe})\text{Si}_2\text{O}_6$



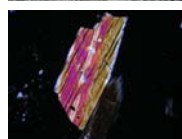
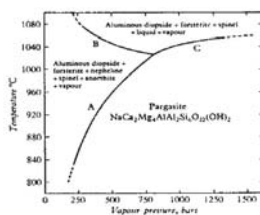
Di-Fo-Silica 系



角閃石 (hornblende)

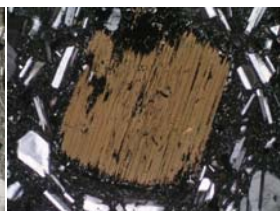
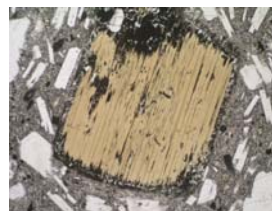
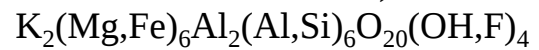


角閃石の安定領域



Mt. St. Helens Volcano, 1980 pumice

黒雲母 (biotite)



Bowenの反応系列

