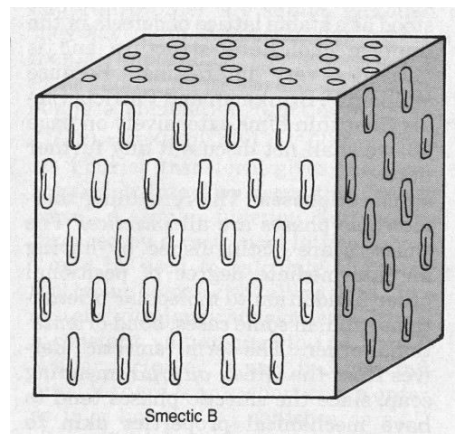
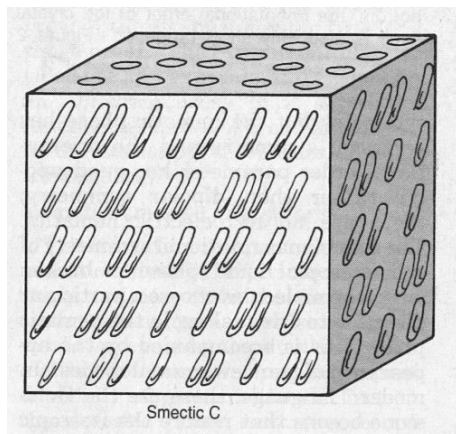
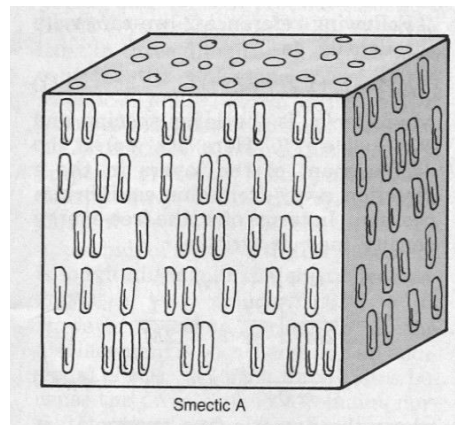
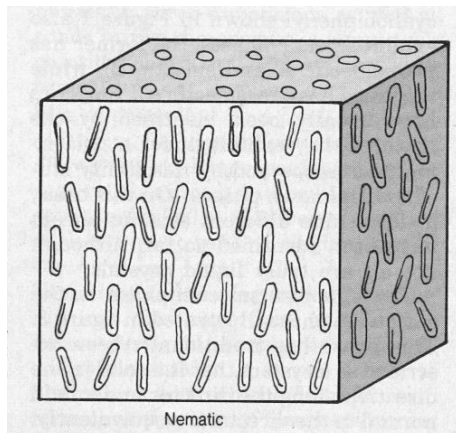


# Liquid crystal phases [ts151]

Most common liquid crystal phases.

- **Nematic:** Molecular orientational ordering. Continuous rotational symmetry about *director*.
- **Smectic A:** Nematic ordering plus density wave along symmetry axis (director).
- **Smectic C:** Smectic A ordering with broken rotational symmetry. Density wave not perpendicular to director.
- **Smectic B:** Smectic A ordering plus density wave perpendicular to director.



[Physics Today, May 1982]