

Module Neutron Diffraction Outline

1. Overview of Single Crystal Diffraction

- Geometries of Crystals
- Bragg's Law

References

Cullity, B.D.; Stock, S.R. "Elements of X Ray Diffraction" 2001. Prentice Hall, 3rd Edition

Wilson, C.C., "Single Crystal Neutron Diffraction from molecular materials", 2000, World Scientific Publishing Co.

2. Introduction to Neutron Diffraction

- Inventors
- Sources of neutrons
- Neutron Detectors

Reference:

Wilson, C.C., "Single Crystal Neutron Diffraction from molecular materials", 2000, World Scientific Publishing Co.

3. Sample preparation for neutron diffraction

- Materials
- Stepwise mechanism of the sample preparation

4. Neutron Scattering

- Coherent and Incoherent Scattering
- Magnetic Scattering

Reference:

Wilson, C.C., "Single Crystal Neutron Diffraction from molecular materials", 2000, World Scientific Publishing Co.

Kisi, E.H., Howard, C. J.; "Applications of Neutron Powder Diffraction" 2008, Oxford University Press. 1st Edition

5. Interpretation of Neutron Diffraction

6. Conclusion