

# Textbooks for Crystal Structure Analysis

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- V.K. Pecharsky and P.Y. Zavalij, Fundamentals of powder diffraction and structural characterization of materials, 2008
- C. Hammond, The Basics of Crystallography and Diffraction, 2015
- W. Ott, Crystallography an Introduction, 2011
- M. Birkholz, Thin Film Analysis by X-ray Scattering, 2005
- B.D. Cullity, S. R. Stock, and S. Stock, Elements of X-ray Diffraction, 2014
- D. Sherwood & J. Cooper, Crystals, X-rays, and Proteins, 2015
- A.D. Krawitz, Introduction to Diffraction in Materials Science and Engineering, 2001
- R. Jenkins and R.L. Snyder, Introduction to X-Ray Powder Diffractometry, 1996
- D.L. Bish and J. E. Post, Modern Powder Diffraction, Reviews in Mineralogy, 1989
- R. A. Young, The Rietveld Method, 1995
- H.D. Megaw, Crystal structures, Techbooks, 1973
- H.P. Klug, L.E. Alexander, X-ray diffraction procedures, Wiley-Interscience, 1989

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## crystallography

- Pecharsky - Chapter 1
- Cullity - Chapter 2
- Krawitz - Chapter 1, 2
- Hammond - Chapter 1, 2, 3, 4, 5, 6
- Sherwood & Cooper - Chapter 1, 3
- Jenkins & Snyder – Chapter 2

## reciprocal lattice

- Hammond - Chapter 6
- Krawitz - Chapter 2.8, 2.9, 2.10
- Cullity - Chapter A1-1, A1-2, A1-3
- Sherwood & Cooper - - Chapter 8.11

## basics of diffraction

- Hammond Chapter 8, 9, 10
- Pecharsky Chapter 2
- Sherwood & Cooper - Chapter 6
- Krawitz Chapter 5, 6
- Birkholz Chapter 1

## properties of X-rays

- Krawitz - Chapter 3
- Cullity - Chapter 1
- Jenkins & Snyder – Chapter 1, 4, 5, 6

## Fourier Transform

- Sherwood & Cooper - Chapter 5

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### Stereographic projection

- Krawitz, Page 48 ~ 62
- Cullity 3<sup>rd</sup> edition, Page 70 ~ 86
- Hammond, Chapter 12

### Wave equation

- Sherwood & Cooper - Chapter 4

### TEXTURE

- Krawitz Chap 11
- Hammond Chap 10
- Cullity Chap 14
- Dyson Chap 11
- Klug & Alexander Chap 10

### Quantitative phase analysis

- Jenkins & Snyder Chap 13
- Cullity Chap 12
- Bish & Post Chap 5
- Klug & Alexander Chap 7
- Krawitz Chap 8

### 2-dim XRD

- Two-dimensional X-ray diffraction, Bob He