

Books on X-Ray and Neutron Reflection

Seq. No.	Authors/Editors	Title	Publisher	ISBN	Comments / Notes
1	J. Daillant and A. Gibaud (Eds.)	X-ray and neutron reflectivity: principles and applications	Springer, Berlin: 2009	978-3-540-88587-0 (Print) 978-3-540-88588-7 (Online)	Review of reflection technique and applications
2	John Lekner	Theory of Reflection of Electromagnetic and Particle Waves	Martinus Nijhoff, Dordrecht: 1987	978-90-247-3418-4	Detailed description of methods to calculate reflectivity
3	Varley F. Sears	Neutron Optics: An Introduction to the Theory of Neutron Optical Phenomena and their Applications	Oxford University Press, Oxford: 1989.	0-19-5046013	Monograph on optical phenomena with neutrons
4	Deviderjit S. Sivia	Elementary Scattering Theory for X-ray and Neutron Users	Oxford University Press, Oxford: 2011.	978-0-19-922867-6 (Hardback), 978-0-19-922868-3 (Paperback)	Good introductory text on scattering with coverage of reflectivity and small-angle scattering
5	Jens Als-Nielsen and Des McMorrow	Elements of Modern X-Ray Physics	2nd edition, Wiley Chichester: 2011.	470973943	General text on X-ray scattering that also discusses reflection
6	International Atomic Energy Agency	Neutron Reflectometry: A Probe for Materials Surfaces	IAEA, Vienna: 2006.	92-0-103906-9	This book can be downloaded freely: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1246_web.pdf

Books on X-Ray and Neutron Reflection

Seq. No.	Authors/Editors	Title	Publisher	ISBN	Comments / Notes
7	Julia S. Higgins and Henri Benoit	Polymers and Neutron Scattering	Oxford University Press, Oxford: 1996.	0-19-850063-7	Some discussion of reflection applied to study of polymers
8	H. Dosch	Critical Phenomena at Surfaces and Interfaces: Evanescent X-Ray and Neutron Scattering	Springer, Berlin: 1992	3-540-54534-4	Discusses surface scattering
9	J. Fitter, T. Gutberlet, J. Katsaras (eds.)	Neutron Scattering in Biology - Techniques and Applications	Springer, Berlin: 2006	10 3-540-29108-3 (Online) 13 978-3-540-29108-4 (Print)	Contains chapters on reflection measurements and on sample environments as well as other experiments
10	G. L. Squires	Introduction to the Theory of Thermal Neutron Scattering	Cambridge University Press, Cambridge: 2012 rev. edn.	978-1107644069	General text on theory of neutron scattering
11	Masahiko Utsuro and Vladimir K. Ignatovich	Handbook of Neutron Optics	Wiley-VCH Verlag GmbH & Co, 2010	9783527408856 (Print) 9783527628780 (Online) http://dx.doi.org/10.1002/9783527628780	Describes neutron optics and some applications of reflectometry
12	Peter S. Pershan, Mark Schlossman	Liquid Surfaces and Interfaces - Synchrotron X-ray Methods	Cambridge University Press, Cambridge, U.K.	978-0-521-81401-0	Considers X-Rays but many ideas are relevant to neutron reflection. Thorough treatment of DWBA.
13	Wim H. de Jeu	Basic X-Ray Scattering for Soft Matter	Oxford University Press, Oxford, (2016)	978-0-19-872867-2 http://dx.doi.org/10.1093/acprof:oso/9780198728665.001.0001	General introductory text on scattering with a few mentions of neutron methods.