

SOME BOOKS IN THE LIBRARY OF THE EUROPEAN SCHOOL ON MAGNETISM

Title	Author	Editor	ISBN	Link
GENERAL PHYSICS AND MATHEMATICS				
Scientific units, weights and measures	F. Cardarelli	Springer	2003	
Mathematics for Physics and Physicists	W. Appel	Princeton and Oxford	2001	
Electricity and magnetism : I & II	B. I. Bleany and B. Blea	Oxford	2013	
A student's guide to Fourier transforms	F.J. F. James	Cambridge	2011	
A student's guide to vectors and tensors	Daniel Fleisch	Cambridge	2012	
A student's guide to data and error analysis	Herman J. C. Berenssen	Cambridge	2011	
Modern electrodynamics	A. Zangwill	Cambridge	2012	
A survey of computation physics	R. H. Landau, M. J. Pae	Princeton	2008	
Properties of materials – Anisotropy, Symmetry, Structure	Robert E. Newnham	Oxford	2005	
Solid state physics	G. Grosso, G. P. Parravicini	Academic Press	2014	
Phase transitions in materials	Brent Fultz	Cambridge	2014	
Physical properties of materials	M. A. White	CRC Press	2012	
Delta functions – Introduction to generalised functions	R. F. Hoskins	Woodhead	2009	
Principles of condensed matter physics	P.M. Chaikin, T.C. Lubensky	Cambridge University Press	1995	
Electronic structure : basic theory and practical methods	Richard M. Martin	Cambridge University Press	2008	
Solid state physics	C. Kittel	Wiley	1976	
Group theory - Application to the physics of condensed matter	Mildred S. Dresselhaus	Springer	2010	
Bonding and structure of molecules and solids	David Pettifor	Oxford	1995	
Electrical properties of materials	L. Solymar, D. Walsh	Oxford	2014	
The principles of quantum mechanics	P. A. M. Dirac	Oxford	1958	
Interaction forces in condensed matter	Mike Finnis	Oxford	2003	
Foundations of solid state physics	Siegmar Roth and David Treimer	Wiley-VCH	2019	
FOCUSED TOPICS IN PHYSICS				
Electron-Phonon interactions in low-dimensional structures	Lawrence Challis	Oxford	2003	
Introduction to surface physics	M. Prutton	Oxford	1994	
ENCYCLOPEDIAS				
Handbooks 1	Kronmüller / Parkin	Wiley VCH	2007	
Handbooks 2	Kronmüller / Parkin		2007	
Handbooks 3	Kronmüller / Parkin		2007	
Handbooks 4	Kronmüller / Parkin		2007	

GENERAL MAGNETISM

Simple models in Magnetism	Skomsky	Oxford University Press (C	2008	9780198570752	https://global.c
Magnetism – Fundamentals	Du Tremolet de la Cheix	Springer	2005		
Magnetism – Materials annd applications	Du Tremolet de la Cheix	Springer	2005		
Introduction to magnetic materials	Cullity	Addison Wesley	1972		
Magnetism	Stöhr	Springer	2007		
Magnetism	J. M. Coey	Oxford			
Magnetism in condensed matter	Blundell	Oxford	2001	9780198505914	https://global.c
Effective field theories of magnetism	J. S. Smart	Saunders company	1966		
Magnetism – A very short introduction	Stephen Blundell	Oxford	2012		

Modern Magnetic Materials – Principles and applications	Robert C. O'Handley	Wiley	2000
Physics of magnetism and magnetic materials	K. H. J. Buschow, F. R.	Kluwer Academic	2003
Fundamentals and applications of magnetic materials	Kannan M. Krishnan	Oxford	2016
Thermodynamics of magnetizing materials and superconductors	Vladimir Kozhevnikov	CRC Press	2019

FOCUSED ASPECTS OF MAGNETISM

General properties

Magnetostriction – Theory and applications	E. du Tremolet de la Ch	CRC Press	1993
Magnetostatic principles in ferromagnetism	W. F. Brown	North Holland	1962
Magnetic oscillations in metals	D. Schoenberg	Cambridge	1984
Magnetic anisotropies in nanostructured matter	P. Weinberger	CRC Press	2009
Principles of magnetostatics	R. C. Fernow	Cambridge	2016
Relaxation processes in micromagnetics	Harry Suhl	Oxford	2007
Introduction to Magnetohydrodynamics	P. A. Davidson	Cambridge Texts in Applied Mathematics	2016
Systems with small dissipation	V. B. Braginsky, V. P. Pavlov	University of Chicago Press	1985

Magnetization processes

Magnetic hysteresis	E. Della Torre	IEEE Press	1999
Mathematical models of hysteresis and their applications	I. Mayergoyz	Elsevier	2003

Magnetization dynamics

Spin waves – Theory and applications	D. D. Stancil and A. P. Prinz	Springer	2009
Spin wave confinement	S. O. Demokritov Ed.	Pan Stanford	2017
Spin-wave theory	R.S. Fishman, J.A. Fernandez	IOP	2018
Spin dynamics in confined magnetic structures –1	Hillebrands Ed.	Springer	2002
Spin dynamics in confined magnetic structures –2	Hillebrands Ed.	Springer	2003
Spin dynamics in confined magnetic structures –3	Hillebrands Ed.	Springer	2006
Atomic Spin Dynamics	Olle Eriksson, A. Bergman	Oxford	2017
Introduction to ultrafast phenomena - From femtosecond magnetization dynamics to spintronics	Guo-Ping Zhang, George S. D. Beach	CRC Press	2021

Frustration, topology etc.

Frustrated spin systems	H. T. Diep Editor	World scientific	2004
Introduction to frustrated magnetism	C. Lacroix, P. Mendels, F. Mila		2011
Topology in Magnetism	Jiadong Zang, Vincent Galitski	Springer	2018
Berry phases in electronic structure theory	D. Vanderbilt	Cambridge	2018
Chirality, Magnetism and Magnetoelectricity	Eugene Kamenetskiy, Evgeny Yatskevich	Springer	2021

MATERIALS

General

Magnetic materials	Nicola A. Spaldin	Cambridge
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2021

Magnetic Materials	R. S. Tebble and D. J. C	Wiley VCH	
The electronic structure of rare-earth metals and alloys	B. Coqblin	Academic press	1977
Magnetic properties of rare-earth metals	R. J. Elliott	Plenum Press	1972
Advanced Engineering Materials		Wiley VCH	2012
Magnetic materials – Fundamentals, products, properties, a	R. Hilzinger, W. Rodewi	Wiley	2013
Hard magnetic materials			
Rare earth iron permanent magnets	J. M. D. Coey Ed.	Oxford	
Permanent magnetism	R. Skomsky and J. M. C	Taylor and Francis	1999
Permanent magnet materials and their application	P. Campbell	Cambridge	1994
Soft magnetic materials			
The Iron-Nickel Alloys	Béranger et al	Lavoisier Publishing	
Magnetism and Metallurgy of soft magnetic materials	C. W. Chen, E. P. Wohl	North-Holland	
High performance soft magnetic materials	Arcady Zhukov Ed.	Springer	2017 978-3-319-49705-5 https://doi.org/
Oxides, semiconductors, Tis			
Magnetic properties of antiferromagnetic oxide materials	L. Duo, M. Finazzi, F. C	Wiley-VCH	2010
Magnetic oxides	G. F. Dionne	Springer	2009
Oxide spintronics	Tamalika Banerjee Ed.	Jenny Stanford	2019 978-981-4774-99-4

		2021	
Dilute magnetic alloys	J. Kondo	Cambridge	2012
Magnetism in topological insulators	Vladimir Litvinov	Springer	2020
Topological Insulators – Fundamentals and perspectives	F. Ortmann, S. Roche, Wiley		2015
Heusler alloys - Properties, Growth, Applications	Claudia Felser, Atsufur Springer		2016 978-3-319-21448 https://doi.org/
Other functional materials			
Shape Memory Materials	K. Otsuka	Cambridge University Pre:	1999
Thin Film Shape Memory Alloys	S. Miyazaki Ed.	Cambridge University Pre:	2009 Missing?
The magnetocaloric effects and its applications	A. L. Tishin and Y. I. Sp	IoP	2003
Magnetic nano- and microwires : Design, synthesis, properti	M. Vazquez, Ed.	Woodhead	2015
Amorphous magnetism	Takahito Kanetoshi	CRC Press	2018/1984

NANOMAGNETISM AND SPINTRONICS

Nanomagnetism

Introduction to ferromagnetism	A. Aharoni	Oxford	2000
Principles of nanomagnetism	Guimares	Springer	2017 978-3-319-59408 https://doi.org/
Magnetic domains	A. Hubert & R. Schäfer	Springer	2000 978-3-540-64108 https://doi.org/
Micromagnetism and the microstructure of ferromagnetic so	H. Kronmüller, M. Fähnl	Cambridge	2003
Skyrmions - Topological structures, properties, and applicati	J Ping Liu, Zhidong Zha	CRC Press	2017

Nanomagnetism and spintronics

Advanced magnetic nanostructures	Sellmyer	Springer	
Ultrathin magn structures I	Heinrich	Springer	
Ultrathin structure II	Heinrich	Springer	
Ultrathin magn structures III	Heinrich	Springer	
Ultrathin structure IV	Bland	Springer	
Nanomagnetism and spintronics	T. Shinjo Ed.	Elsevier	2009

Spintronics

Magnetoelectronics	Johnson	Elsevier	
Concepts in Spin electronics	Maekawa	Oxford	2006
Spintronics	T. Dietl Ed.	Academic Press	2008
Introduction to Spintronics, 2nd Edition	Supriyo Bandyopadhyay	CRC Press	2020 978-1-4822-5556-0
Spin current	S. Maekawa, S. O. Vale	Oxford	2013
Handbook of spin transport and magnetism	Evgeny Y. Tsybal and	CRC Press	2012
Magnetoresistance in metals	A. B. Pippard	Cambridge	1989
Graphene in spintronics	J. Inoue, A. Yamakage,	Pan Stanford	2016
Noise in spintronics	Farkhad G. Aliev, Juan	Pan Stanford	2018

Low-dimensional

Introduction to surface magnetism	Kaneyoshi	CRC Press	1991
Surface effects in nanoparticles	Fiorani	Springer	2005

TECHNIQUES**General**

Modern techniques for characterizing magnetic materials	Y. Zhu	Springer	2005
Handbook of magnetic measurements	S. Tumanski	CRC Press	2011
Measurement and characterization of magnetic materials	Fausto Fiorillo	Elsevier	2004

Microscopy and imaging

Magnetic microscopy of nanostructures	Oepen	Springer	2005
Surface microscopy with low-energy electrons	Ernst Bauer	Springer	2014
High-resolution electron microscopy	John C. H. Spence	Oxford	2003
Handbook of nanoscopy vol.1	Gustaaf Van Tendeloo, Wiley		2012
Handbook of nanoscopy vol.2	Gustaaf Van Tendeloo, Wiley		2012
Fourier Ptychographic imaging - A Matlab tutorial	G. Zheng	IOP	2016
Magnetic microscopy of layered structures	W. Kuch, R. Schäfer, P. Springer		2015 978-3-662-44531 https://doi.org/

Synchrotron radiation

Magnetism and synchrotron radiation	Beaurepaire Ed.	Springer	2010
Synchrotron radiation - An everyday application of special relativity	J.E. Rubensson	IOP	2016

Neutrons and muons

Neutron and X-ray Spectroscopy	F. Hippert	Springer	2006
Magnetic Small-Angle Neutron Scattering	Andreas Michels	Oxford	2021 978-0-19885517 https://global.c

Misc

Nuclear Magnetic Resonance	E. R. Andrew	Cambridge	1969
Principles of nuclear magnetic resonance microscopy	Paul T. Callaghan	Oxford	1991
Atomic Force Microscopy	P. Eaton, P. West	Oxford	2010
Electrochemistry	C. Lefrou, P. Fabry, JC	Springer	2012
Microwave engineering	David M. Pozar	Wiley	2012
Polarized light and optical systems	R. A. Chipman, W.S. T.	CRC Press, Taylor and Fr	2019

APPLICATIONS AND DEVICES

GMR devices	Hirota	Springer	2003
The Physics of magnetic recording	M. L. Plumer et al. Ed	Springer	2001
Magnetic nanoparticles – From fabrication to clinical applications	Nguyen T. K. Thanh, Ec	CRC Press	2012
Magnetic Memory – Fundamentals and technology	D. D. Tang, Y. J. Lee	Cambridge	2010
Introduction to magnetic random-access memory	B. Diény, R. B. Goldfart	IEEE Press-Wiley	2017
Next generation spin torque memories	Brajesh Kumar Kaushik	Springer	2017
Magnetic actuators and sensors	John R. Brauer	IEEE Press-Wiley	2014

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Vertical 3D memory technologies	Betty Prince	Wiley
Magnetic nanoparticles for medical diagnostics	Adarsh Sandhu, Hiroshi IOP	2014
Magnetic levitation	Hyung-Suk Han, Dong-! Springer - Maglev technol	2018
		2016 978-94-017-752; https://doi.org/
Ferromagnetic materials vol.xx	E. P. Wohlfarth Ed.	North Holland