

# SPIE eBooks: *Collections and Titles in 2010*<sup>1</sup>

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Initially SPIE eBooks will be offered as three collections, defined below. Detailed information about each title is available at SPIE.org. The titles will be added to the collections in the months ahead. The Backlist and Midlist Collections will be completed by April 1, 2010. The Frontlist Collection will be built through 2010.

## Backlist Collection: Published 1989 - 2003

This collection will include approximately 54 of the following 62 titles. As SPIE may not be able to obtain e-rights to some books, the list of included titles is provisional and pricing reflects about 12% attrition.

Title	Series Vol.	# of Chapters <sup>2</sup>	# of Pages	Pub Year
The New Physical Optics Notebook: Tutorials in Fourier Optics	PM01	38	572	1989
Aberration Theory Made Simple	TT06	12	158	1991
Digital Image Compression Techniques	TT07	15	240	1991
Optics in Photography	PM06	12	300	1992
Introduction to Optical Testing	TT15	6	170	1993
Soft X-Ray Optics	PM15	13	290	1994
Pulsed Gas Lasers	PM17	10	374	1995
Optical Scattering: Measurement and Analysis, 2nd Ed	PM24	10	340	1995
Introduction to Wavefront Sensors	TT18	10	168	1995
Mounting Lenses in Optical Instruments	TT21	7	194	1995
Fundamentals of Electronic Image Processing	PM32	9	560	1996
Optical Thin Films: User Handbook	PM37	7	304	1996
Introduction to Infrared System Design	TT24	14	148	1996
Color Technology for Electronic Imaging Devices	PM28	15	384	1997
Special Functions of Mathematics for Engineers, 2nd Ed	PM49	12	504	1997
Optical Communication Receiver Design	TT22	7	340	1997
Introduction to Imaging Spectrometers	TT25	17	164	1997
A System Engineering Approach to Imaging	PM38	19	704	1998
Random Processes for Image and Signal Processing	PM44	5	616	1998
Optical Imaging and Aberrations: Part 1. Ray Geometrical Optics	PM45	7	500	1998
Introduction to Radiometry	TT29	15	200	1998
Basic Electro-Optics for Electrical Engineers	TT31	6	108	1998
Optical Systems and Processes	PM65	13	434	1999
Integral Transforms for Engineers	PM66	9	364	1999
Digital Color Halftoning	PM68	20	528	1999

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<sup>1</sup> As SPIE may not be able to obtain e-rights to some books, the list of included titles is provisional.

<sup>2</sup> The number of chapters includes appendices.

<b>Title</b>	<b>Series Vol.</b>	<b># of Chapters<sup>2</sup></b>	<b># of Pages</b>	<b>Pub Year</b>
Materials for Infrared Windows and Domes: Properties and Performance	PM70	9	428	1999
Contrast Sensitivity of the Human Eye and Its Effects on Image Quality	PM72	9	232	1999
Lithography Process Control	TT28	9	204	1999
Infrared Design Examples	TT36	8	180	1999
Fractal and Wavelet Image Compression Techniques	TT40	11	254	1999
Handbook of Medical Imaging, Vol. 1. Physics and Psychophysics	PM79	20	968	2000
Handbook of Medical Imaging, Vol. 2. Medical Image Processing and Analysis	PM80	19	1218	2000
Handbook of Medical Imaging, Vol. 3. Display and PACS	PM81	13	512	2000
Analysis of Sampled Imaging Systems	TT39	8	194	2000
Introduction to Adaptive Optics	TT41	9	130	2000
Fundamentals of Contamination Control	TT44	5	196	2000
Optical Design for Visual Systems	TT45	10	170	2000
Optical Imaging and Aberrations, Part II. Wave Diffraction Optics	PM103	5	472	2001
Alien Vision: Exploring the Electromagnetic Spectrum with Imaging Technology	PM104	6	184	2001
Demystifying Electromagnetic Equations: A Complete Explanation of EM Unit Systems and Equation Transformations	PM106	4	344	2001
Scientific Charge-Coupled Devices	PM83	8	920	2001
Fundamental Optical Design	PM92	13	314	2001
Laser Beam Scintillation with Applications	PM99	10	416	2001
Resolution Enhancement Techniques in Optical Lithography	TT47	8	234	2001
Optical Design Fundamentals for Infrared Systems, 2nd Ed	TT48	10	202	2001
The Basics of Spectroscopy	TT49	8	142	2001
Fundamentals of Antennas: Concepts and Applications	TT50	7	106	2001
Uncooled Thermal Imaging Arrays, Systems, and Applications	TT51	7	110	2001
Modulation Transfer Function in Optical and Electro-Optical Systems	TT52	5	120	2001
Color Vision and Colorimetry: Theory and Applications	PM105	8	176	2002
Handbook of Optical Biomedical Diagnostics	PM107	19	1110	2002
Adaptive Beaming and Imaging in the Turbulent Atmosphere	PM109	5	218	2002
Optoelectronics of Solar Cells	PM115	7	118	2002
An Engineering Introduction to Biotechnology	TT55	9	144	2002
Thin-Film Design: Modulated Thickness and Other Stopband Design Methods	TT57	5	134	2002
Integrated Optomechanical Analysis	TT58	9	248	2002
Mathematical Techniques for Engineers and Scientists	PM118	15	820	2003
Biologically Inspired Intelligent Robots	PM122	11	406	2003
Introduction to Complex Mediums for Optics and	PM123	27	776	2003

Title	Series Vol.	# of Chapters <sup>2</sup>	# of Pages	Pub Year
Electromagnetics				
Hands-on Morphological Image Processing	TT59	9	290	2003
Fourier-Transform Spectroscopy Instrumentation Engineering	TT61	10	136	2003
Diffractive Optics: Design, Fabrication, and Test	TT62	11	260	2003

## Midlist Collection: Published 2004 – 2008

This collection will include approximately 57 of the following 60 titles as e-rights are unlikely to be obtained for all of the books. This collection includes all of the *Field Guides* published before 2009.

Title	Series Vol.	# of Chapters <sup>3</sup>	# of Pages	Pub Year
Field Guide to Geometrical Optics	FG01	95 / 5	128	2004
Field Guide to Atmospheric Optics	FG02	71 / 6	112	2004
Field Guide to Adaptive Optics	FG03	51 / 5	82	2004
The Handbook of Nanotechnology. Nanometer Structures: Theory, Modeling, and Simulation	PM129	9	576	2004
Coherent Fields and Images in Remote Sensing	PM130	5	244	2004
Intermediate Optical Design	PM134	11	280	2004
Electroactive Polymer (EAP) Actuators as Artificial Muscles: Reality, Potential, and Challenges, 2nd Ed	PM136	21	816	2004
Optical Coating Technology	PM137	12	840	2004
Sensor and Data Fusion: A Tool for Information Assessment and Decision Making	PM138	11	342	2004
Field Mathematics for Electromagnetics, Photonics, and Materials Science: A Guide for the Scientist and Engineer, 4th Printing	TT64	9	272	2004
Metrics for High-Quality Specular Surfaces	TT65	9	166	2004
Field Guide to Visual and Ophthalmic Optics	FG04	82 / 5	124	2005
Field Guide to Polarization	FG05	76 / 16	148	2005
Infrared Fibers and Their Applications	PM135	11	312	2005
Sculptured Thin Films: Nanoengineered Morphology and Optics	PM143	10	336	2005
Principles of Lithography, 2nd Ed	PM146	12	438	2005
Laser Beam Propagation through Random Media, 2nd Ed	PM152	18	820	2005
Optical Clearing of Tissues and Blood	PM154	9	256	2005
Optical Imaging in Projection Microlithography	TT66	9	276	2005
Basics of Code Division Multiple Access (CDMA)	TT67	9	120	2005

<sup>3</sup> The number of chapters includes appendices. SPIE Press *Field Guides* have sections of related material (the first number) and individual entries (the second number).

<b>Title</b>	<b>Series Vol.</b>	<b># of Chapters<sup>3</sup></b>	<b># of Pages</b>	<b>Pub Year</b>
Artificial Neural Networks: An Introduction	TT68	14	180	2005
Introduction to Confocal Fluorescence Microscopy, 2nd Ed	TT69	5	138	2005
Field Guide to Optical Lithography	FG06	82 / 5	136	2006
Field Guide to Optical Thin Films	FG07	75 / 11	118	2006
Field Guide to Spectroscopy	FG08	96 / 3	124	2006
Field Guide to Infrared Systems	FG09	78 / 4	116	2006
Field Guide to Interferometric Optical Testing	FG10	82 / 9	114	2006
EUV Sources for Lithography	PM149	38	1094	2006
Fundamentals of BioMEMS and Medical Microdevices	PM153	15	608	2006
Recent Advances in Breast Imaging, Mammography, and Computer-Aided Diagnosis of Breast Cancer	PM155	28	1008	2006
Local Approximation Techniques in Signal and Image Processing	PM157	14	576	2006
Camera Lenses: From Box Camera to Digital	PM158	31	320	2006
Computational Color Technology	PM159	19	524	2006
Confocal Microscopy and Multiphoton Excitation Microscopy	PM161	15	230	2006
Coherent-Mode Representations in Optics	PM164	5	98	2006
Thermal Infrared Characterization of Ground Targets and Backgrounds, Second Edition	TT70	8	190	2006
The Physics and Engineering of Solid State Lasers	TT71	12	222	2006
Logic-based Nonlinear Image Processing	TT72	9	162	2006
Introduction to Image Stabilization	TT73	9	112	2006
Field Guide to Illumination	FG11	111 / 23	152	2007
Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnosis, 2nd Ed	PM166	9	882	2007
Optical Correlation Techniques and Applications	PM168	4	286	2007
High-Operating-Temperature Infrared Photodetectors	PM169	10	256	2007
Photon Transfer	PM170	12	276	2007
Electromagnetic Wave Propagation in Turbulence: Evaluation and Application of Mellin Transforms, 2nd Ed	PM171	12	386	2007
Remote Sensing from Air and Space	PM162	12	270	2007
Practical Applications of Infrared Thermal Sensing and Imaging Equipment, 3rd Ed	TT75	12	192	2007
Fundamentals of Infrared Detector Materials	TT76	8	186	2007
Matrix Methods for Optical Layout	TT77	5	138	2007
Radiation Thermometry: Fundamentals and Applications in the Petrochemical Industry	TT78	7	176	2007
Field Guide to Lasers	FG12	107 / 20	152	2008
Field Guide to Laser Pulse Generation	FG14	73 / 6	132	2008

Title	Series Vol.	# of Chapters <sup>3</sup>	# of Pages	Pub Year
Advanced Optics Using Aspherical Elements	PM173	6	434	2008
Polymer Photovoltaics: A Practical Approach	PM175	6	336	2008
Engineering a High-Tech Business: Entrepreneurial Experiences and Insights	PM182	25	288	2008
Digital and Analog Fiber Optic Communications for CATV and FTTx Applications	PM174	21	1090	2008
EUV Lithography	PM178	12	702	2008
Wavefront Optics for Vision Correction	PM179	9	366	2008
Mounting Optics in Optical Instruments, 2nd Ed.	PM181	15	782	2008
Advances in Information Optics and Photonics	PM183	32	752	2008

## Frontlist Collection: Published in 2009 and 2010

This collection will include approximately 29 titles. The list will be expanded as the SPIE Press publishing program for 2010 is developed in the months ahead. The collection will be priced as if it included an average recent mix of books with a discount equivalent to a standing order.

Title	Series Vol.	# of Chapters <sup>4</sup>	# of Pages	Pub Year
Advanced Processes for 193-nm Immersion Lithography	PM189	11	336	2009
Fundamentals of Polarimetric Remote Sensing	TT81	12	268	2009
Optical Engineering Fundamentals, 2nd Ed.	TT82	12	294	2009
Infrared Optics and Zoom Lenses, 2nd Ed.	TT83	9	182	2009
Optical Design: Applying the Fundamentals	TT84	19	195	2009
Computed Tomography: Principals, Design, Artifacts, and Recent Advances, 2nd Ed. (June 2009)	PM188	12	560	2009
Diffusion & Perturbation: Study of Light through Diffusive Media (October 2009)	PM193	19	370	2009
Optical Lithography: Here Is Why (August 2009)	PM190	8	250	2009
Field Guide to Microscopy	FG--			2009
The Design of Plastic Optical Systems (September 2009)	TT80	8	300	2009
Tutorials in Complex Photonic Media (August 2009)	PM194	19	700	2009
Cells Illuminated: In Vivo Optical Imaging	PM--			2009
LCD Displays	TT--			2009
Chemistry and Lithography (December 2009)	PM192			2009
Image Acquisition and Pre-Processing for Machine Vision	PM--			2009
Optical Scattering: Measurement and Analysis, 3rd Ed.	PM--			2009
The Art of Radiometry	PM			2009

<sup>4</sup> The number of chapters includes appendices. SPIE Press *Field Guides* have sections of related material (the first number) and individual entries (the second number).

<b>Title</b>	<b>Series Vol.</b>	<b># of Chapters<sup>4</sup></b>	<b># of Pages</b>	<b>Pub Year</b>
Microscope Design	TT			2009
3D Video Technologies and Future Internet	PM			2009
Direct Detection LADAR Systems	PM			2009
Field Guide to Optical Design	FG--			2009