Marek Malac

List of Publications by Year
in descending order

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127	1,860	331259 21	288905 40
papers	citations	h-index	g-index

127	127	127	2519
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deep ultra-violet plasmonics: exploiting momentum-resolved electron energy loss spectroscopy to probe germanium. Optics Express, 2022, 30, 12630.	1.7	2
2	High-Energy Electron Scattering in <i>Thick</i> Samples Evaluated by Bright-Field Transmission Electron Microscopy, Energy-Filtering Transmission Electron Microscopy, and Electron Tomography. Microscopy and Microanalysis, 2022, 28, 659-671.	0.2	5
3	Higher-order structure of barley chromosomes observed by electron tomography. Micron, 2022, 160, 103328.	1.1	2
4	Phase plates in the transmission electron microscope: operating principles and applications. Microscopy (Oxford, England), 2021, 70, 75-115.	0.7	24
5	Nanoparticle size and 3D shape measurement by electron tomography: An Inter-Laboratory Comparison. Micron, 2021, 140, 102956.	1.1	4
6	Chromosome inner structure investigation by electron tomography and electron diffraction in a transmission electron microscope. Chromosome Research, 2021, 29, 63-80.	1.0	2
7	Maximum thicknesses of EELS log ratio thickness measurement for several elements. Microscopy and Microanalysis, 2021, 27, 716-718.	0.2	0
8	NanoMi Open Source (S)TEM Platform: Initial SEM Implementation. Microscopy and Microanalysis, 2021, 27, 1062-1063.	0.2	2
9	Higher-Order Structure of Human Chromosomes Observed by Electron Diffraction and Electron Tomography. Microscopy and Microanalysis, 2021, 27, 149-155.	0.2	7
10	Toward the quantitative the interpretation of hole-free phase plate images in a transmission electron microscope.. Ultramicroscopy, 2020, 209, 112875.	0.8	5
11	NanoMi: An Open Source (Scanning) Transmission Electron Microscope.. Microscopy and Microanalysis, 2020, 26, 1810-1811.	0.2	4
12	Higher-order Structure of Human Chromosomes Observed by Electron Tomography and Electron Diffraction. Microscopy and Microanalysis, 2020, 26, 656-659.	0.2	2
13	Substrate and contamination effects on the thermal expansion coefficient of suspended graphene measured by electron diffraction. Carbon, 2020, 163, 324-332.	5.4	9
14	Parameters affecting the accuracy of nanoparticle shape and size measurement in 3D. Micron, 2019, 123, 102680.	1.1	12
15	Magnetic textures in a hexaferrite thin film and their response to magnetic fields revealed by phase microscopy. Japanese Journal of Applied Physics, 2019, 58, 065004.	0.8	9
16	Quasi non-diffractive electron Bessel beams using direct phase masks with applications in electron microscopy. New Journal of Physics, 2019, 21, 033007.	1.2	7
17	Hole free phase plate tomography for materials sciences samples. Micron, 2019, 116, 54-60.	1.1	8
18	Charging of electron beam irradiated amorphous carbon thin films at liquid nitrogen temperature. Ultramicroscopy, 2019, 196, 161-166.	0.8	14

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19	Fast electrons interacting with a natural hyperbolic medium: bismuth telluride. Optics Express, 2019, 27, 6970.	1.7	13
20	Thermal expansion coefficient measurement from electron diffraction of amorphous films in a TEM. Ultramicroscopy, 2018, 188, 8-12.	0.8	8
21	Evaluation of electron tomography reconstruction methods for interface roughness measurement. Microscopy Research and Technique, 2018, 81, 515-519.	1.2	5
22	Charging of carbon thin films in scanning and phase-plate transmission electron microscopy. Ultramicroscopy, 2018, 184, 252-266.	0.8	29
23	Hole-Free Phase Plate Imaging of a Phase Grating. Microscopy and Microanalysis, 2018, 24, 894-895.	0.2	2
24	Automation of Image Processing for Nano-beam Diffraction Measurements. Microscopy and Microanalysis, 2018, 24, 1720-1721.	0.2	0
25	Hole Free Phase Plate Electron Tomography in Material Sciences. Microscopy and Microanalysis, 2018, 24, 2224-2225.	0.2	2
26	Continuous Wavelet Transforms for Measuring Roughness of Nanoscale Interfaces. Microscopy and Microanalysis, 2018, 24, 1048-1049.	0.2	0
27	Toward Quantitative Bright Field TEM Imaging of Ultra Thin Samples. Microscopy and Microanalysis, 2018, 24, 1612-1613.	0.2	3
28	Observation of FeGe skyrmions by electron phase microscopy with hole-free phase plate. AIP Advances, 2018, 8, .	0.6	15
29	Wavelet transform-based electron tomography measurement of buried interface roughness. Ultramicroscopy, 2018, 194, 64-77.	0.8	3
30	Extreme ultraviolet plasmonics and Cherenkov radiation in silicon. Optica, 2018, 5, 1590.	4.8	24
31	Carbon contamination in scanning transmission electron microscopy and its impact on phase-plate applications. Micron, 2017, 96, 38-47.	1.1	35
32	Band gap measurement of Bi 2 Mo x W 1-x O 6 by low loss electron energy loss spectroscopy. Materials Science in Semiconductor Processing, 2017, 63, 184-189.	1.9	7
33	Sample preparation method for 3D size measurements of polystyrene nanoparticles with nominal 30, 50, 70 and 100â€‰nm diameters by electron tomography. Measurement Science and Technology, 2017, 28, 087001.	1.4	2
34	Quality evaluation of ultraâ€thin samples: Application to graphene. Microscopy Research and Technique, 2017, 80, 823-830.	1.2	1
35	Computer simulations analysis for determining the polarity of charge generated by high energy electron irradiation of a thin film. Micron, 2017, 100, 10-22.	1.1	16
36	Momentum-Resolved Electron Energy Loss Spectroscopy for Mapping the Photonic Density of States. ACS Photonics, 2017, 4, 1009-1014.	3.2	23

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37	Contamination and Charging of Amorphous Thin Films Suitable as Phase Plates for Phase-Contrast Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 830-831.	0.2	1
38	Hole-Free Phase Plate Energy Filtering Imaging of Graphene: Toward Quantitative Hole-Free Phase Plate Imaging in a TEM. Microscopy and Microanalysis, 2017, 23, 842-843.	0.2	2
39	Temperature Measurement in a TEM using Electron Diffraction of Amorphous Films. Microscopy and Microanalysis, 2017, 23, 950-951.	0.2	0
40	Practical electron tomography guide: Recent progress and future opportunities. Micron, 2016, 91, 49-74.	1.1	31
41	High-accuracy electron tomography of semiconductor devices. Microscopy and Microanalysis, 2015, 21, 1609-1610.	0.2	2
42	Tomographic measurement of buried interface roughness. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 040605.	0.6	3
43	Three Dimensional Accurate Morphology Measurements of Polystyrene Standard Particles on Silicon Substrate by Electron Tomography. Microscopy and Microanalysis, 2015, 21, 2405-2406.	0.2	0
44	Tomographic measurement of buried interface roughness. Microscopy and Microanalysis, 2015, 21, 2243-2244.	0.2	1
45	Electron Beam-Induced Charging and Modifications of Thin Films. Microscopy and Microanalysis, 2015, 21, 1385-1388.	0.2	7
46	Tomography for plasmonics. Nature Nanotechnology, 2015, 10, 386-387.	15.6	0
47	Three dimensional accurate morphology measurements of polystyrene standard particles on silicon substrate by electron tomography. Micron, 2015, 79, 53-58.	1.1	7
48	Accurate measurement of relative tilt and azimuth angles in electron tomography: A comparison of fiducial marker method with electron diffraction. Review of Scientific Instruments, 2014, 85, 083704.	0.6	7
49	Structure and composition of single Ptâ€“Ru electrocatalyst nanoparticles supported on multiwall carbon nanotubes. Materials Research Express, 2014, 1, 045026.	0.8	2
50	Electron Diffraction-Based Quality Evaluation of Graphene Films. Microscopy and Microanalysis, 2014, 20, 1786-1787.	0.2	0
51	Phase measurement error in summation of electron holography series. Ultramicroscopy, 2014, 141, 38-50.	0.8	24
52	Determination of localized visibility in off-axis electron holography. Ultramicroscopy, 2014, 138, 4-12.	0.8	4
53	Validity of the dipole approximation in TEMâ€EELS studies. Microscopy Research and Technique, 2014, 77, 773-778.	1.2	9
54	Nano-dot markers for electron tomography formed by electron beam-induced deposition: Nanoparticle agglomerates application. Ultramicroscopy, 2014, 144, 50-57.	0.8	19

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55	Charging of Thin Film Phase Plates under Electron Beam Irradiation. Microscopy and Microanalysis, 2014, 20, 230-231.	0.2	4
56	Magnetic Imaging with a Novel Hole-Free Phase Plate. Microscopy and Microanalysis, 2014, 20, 250-251.	0.2	1
57	Angle-resolved Valence EELS of a Single Crystal Gold Sample. Microscopy and Microanalysis, 2014, 20, 628-629.	0.2	0
58	Nano-Dot Markers for Electron Tomography Formed by Electron Beam-Induced Deposition: Nanoparticle Agglomerates Application. Microscopy and Microanalysis, 2014, 20, 782-783.	0.2	1
59	Electron Diffraction Based Tilt Angle Measurements in Electron Tomography. Microscopy and Microanalysis, 2014, 20, 806-807.	0.2	0
60	Characterization of detector modulation-transfer function with noise, edge, and holographic methods. Ultramicroscopy, 2013, 129, 42-52.	0.8	11
61	Magnetic imaging with a Zernike-type phase plate in a transmission electron microscope. Applied Physics Letters, 2013, 102, .	1.5	11
62	Two-step Deconvolution in Electron Energy-loss Spectroscopy on hBN K-edge. Microscopy and Microanalysis, 2012, 18, 1034-1035.	0.2	0
63	The sources of contamination of TEM samples and the means for its reduction. Microscopy and Microanalysis, 2012, 18, 1480-1481.	0.2	14
64	Electron Tomography Applied to an Indium Tin Oxide Nanowhisker. Microscopy and Microanalysis, 2012, 18, 568-569.	0.2	3
65	Preferential face deposition of gold nanoparticles on silicon nanowires by galvanic displacement. CrystEngComm, 2012, 14, 5230.	1.3	24
66	Convenient contrast enhancement by a hole-free phase plate. Ultramicroscopy, 2012, 118, 77-89.	0.8	79
67	Practical hole-free phase plate imaging: principles, advantages and pitfalls. Microscopy and Microanalysis, 2012, 18, 484-485.	0.2	6
68	A convenient method for electron tomography sample preparation using a focused ion beam. Microscopy Research and Technique, 2012, 75, 1165-1169.	1.2	1
69	Local thickness measurement through scattering contrast and electron energy-loss spectroscopy. Micron, 2012, 43, 8-15.	1.1	75
70	Reconstruction and visualization of nanoparticle composites by transmission electron tomography. Ultramicroscopy, 2012, 113, 96-105.	0.8	16
71	Nanoscale Structure of Oxidized and Reduced Rhodium-Loaded ZrO₂â€“CeO₂ Catalysts. Journal of Physical Chemistry C, 2011, 115, 14173-14179.	1.5	4
72	The spatial distribution of silicon NCs and erbium ion clusters by simultaneous high-resolution energy filtered and Z-contrast STEM and transmission electron tomography. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1038-1043.	0.8	3

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73	Basic questions related to electron-induced sputtering in the TEM. Ultramicroscopy, 2010, 110, 991-997.	0.8	229
74	Water-Soluble J-Type Rosette Nanotubes with Giant Molar Ellipticity. Journal of the American Chemical Society, 2010, 132, 15136-15139.	6.6	61
75	Taking a Little off the Top: Nanorod Array Morphology and Growth Studied by Focused Ion Beam Tomography. Langmuir, 2010, 26, 17558-17567.	1.6	18
76	Surface plasmon resonance in interacting Si nanoparticle chains. Nanoscale, 2010, 2, 681.	2.8	8
77	From nanoparticle to nanocable: Impact of size and geometrical constraints on the optical modes of Si/SiO2 core/shell nanostructures. Applied Physics Letters, 2009, 95, 133102.	1.5	8
78	In-line Holography of Embedded Nanoparticles in a TEM. Microscopy and Microanalysis, 2009, 15, 1238-1239.	0.2	0
79	TEM Study of Pt Cluster Incorporated Zeolite A. Microscopy and Microanalysis, 2009, 15, 1190-1191.	0.2	1
80	Fourier-ratio deconvolution techniques for electron energy-loss spectroscopy (EELS). Ultramicroscopy, 2009, 109, 1245-1249.	0.8	39
81	Heteroepitaxial Growth of Gold Nanostructures on Silicon by Galvanic Displacement. ACS Nano, 2009, 3, 2809-2817.	7.3	101
82	Technique for Fitting Complex Probes in Nano-Beam Diffraction. Microscopy and Microanalysis, 2009, 15, 768-769.	0.2	0
83	Basic Questions Related to Electron-Induced Sputtering. Microscopy and Microanalysis, 2009, 15, 1356-1357.	0.2	0
84	3D Imaging of Si and Er Nanoclusters in Er Doped SiO1.5 Films by STEM Tomography. Microscopy and Microanalysis, 2009, 15, 1256-1257.	0.2	2
85	Spatially Resolved Characterization of Interface Plasmons in Si/SiO2 Core/Shell Nanostructures. Microscopy and Microanalysis, 2009, 15, 1244-1245.	0.2	0
86	Convenient Electron Optics Set Up for Zernike Phase Microscopy in TEM. Microscopy and Microanalysis, 2009, 15, 1234-1235.	0.2	4
87	Electron Radiation Damage in TiOx Nanobelts. Microscopy and Microanalysis, 2009, 15, 1340-1341.	0.2	0
88	Microscopy Characterization of Organic Pigments and Polymer Composite Materials for Xerography Applications.,. Microscopy and Microanalysis, 2009, 15, 1282-1283.	0.2	1
89	Electron Energy Loss Spectroscopy Study on the Dielectric Response of Single H2Ti3O7 Nanotube. Microscopy and Microanalysis, 2009, 15, 1218-1219.	0.2	5
90	TEM Studies of Au/Si Epilayer Interfaces. Microscopy and Microanalysis, 2009, 15, 1450-1451.	0.2	1

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91	Imaging of radiation-sensitive samples in transmission electron microscopes equipped with Zernike phase plates. Ultramicroscopy, 2008, 108, 126-140.	0.8	29
92	Low-dose performance of parallel-beam nanodiffraction. Ultramicroscopy, 2008, 109, 14-21.	0.8	11
93	Electron energy-loss spectroscopy. Preface. Micron, 2008, 39, 639-640.	1.1	0
94	Evaluating Visibility and Spatial Resolution in Electron Holography. Microscopy and Microanalysis, 2008, 14, 854-855.	0.2	2
95	In-line Point Projection Holography of Titanium Oxide Nanoparticles. Microscopy and Microanalysis, 2008, 14, 838-839.	0.2	0
96	Use of Fourier-ratio deconvolution for processing low-loss EELS spectra. Microscopy and Microanalysis, 2008, 14, 1412-1413.	0.2	0
97	Spatial resolution and delocalization of the EELS core-loss fine structure. Microscopy and Microanalysis, 2008, 14, 1344-1345.	0.2	1
98	Electron Microscopy Characterization of Pd-Ce Interaction on Î±-Al2O3 Support. Microscopy and Microanalysis, 2008, 14, 292-293.	0.2	0
99	Methods for location of palladium catalyst nanoparticles in mesoporous silicates. Microscopy and Microanalysis, 2008, 14, 180-181.	0.2	0
100	Synthesis and Interfacial Characterization of Au Nanoparticles on Si Nanowires. Microscopy and Microanalysis, 2008, 14, 302-303.	0.2	1
101	Investigation of Beam Damage Mechanism of Ball-milled MgH2 Powder. Microscopy and Microanalysis, 2008, 14, 278-279.	0.2	4
102	Multilayer route to iron nanoparticle formation in an insulating matrix. Journal of Applied Physics, 2007, 101, 034314.	1.1	8
103	Controlled Growth of Silicon Oxide Nanowires from a Patterned Reagent. Journal of Physical Chemistry C, 2007, 111, 1865-1867.	1.5	5
104	Direct Patterning, Conformal Coating, and Erbium Doping of Luminescent ncâ€Si/SiO₂ Thin Films from Solution Processable Hydrogen Silsesquioxane. Advanced Materials, 2007, 19, 3513-3516.	11.1	39
105	Bright-field TEM imaging of single molecules: Dream or near future?. Ultramicroscopy, 2007, 107, 40-49.	0.8	17
106	An ELNES Study of SiO2 Nanowires Grown from a Patterned Reagent. Microscopy and Microanalysis, 2006, 12, 1172-1173.	0.2	0
107	Optimized Cs-corrected Imaging of Radiation-Sensitive High-Resolution Objects. Microscopy and Microanalysis, 2006, 12, 1458-1459.	0.2	1
108	Measurements of Functional Response of Nano-objects using Advanced Electron Microscopy. Microscopy and Microanalysis, 2006, 12, 540-541.	0.2	0

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109	Reversal Behavior of Patterned Ferromagnetic Elements. Microscopy and Microanalysis, 2006, 12, 956-957.	0.2	0
110	Interpretation of the postpeak in iron fluorides and oxides. Ultramicroscopy, 2006, 106, 925-932.	0.8	6
111	EELS in the TEM. Journal of Electron Spectroscopy and Related Phenomena, 2005, 143, 43-50.	0.8	66
112	Electron-beam patterning with sub-2â€‚nm line edge roughness. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 271.	1.6	6
113	Broadband spin dynamics of Permalloy rings in the circulation state. Applied Physics Letters, 2005, 86, 262502.	1.5	22
114	Silver Nano-Inukshuks on Germanium. Nano Letters, 2005, 5, 815-819.	4.5	126
115	The Lateral Range and Energy Deposition of Fast Secondary Electrons. Microscopy and Microanalysis, 2004, 10, 1382-1383.	0.2	12
116	Quantitative study of magnetic field distribution by electron holography and micromagnetic simulations. Applied Physics Letters, 2003, 83, 1435-1437.	1.5	21
117	Electron Holography and Micromagnetic Simulations for TEM Magnetization Mapping. Microscopy and Microanalysis, 2003, 9, 778-779.	0.2	0
118	Exposure characteristics of cobalt fluoride (CoF2) self-developing electron-beam resist on sub-100 nm scale. Journal of Applied Physics, 2002, 92, 1112-1121.	1.1	15
119	Magnetic Induction Mapping in TEM of Micro- and Nano-Patterned Co/Ni Arrays. Microscopy and Microanalysis, 2002, 8, 1344-1345.	0.2	0
120	Improved background-fitting algorithms for ionization edges in electron energy-loss spectra. Ultramicroscopy, 2002, 92, 47-56.	0.8	41
121	Observations of the microscopic growth mechanism of pillars and helices formed by glancing-angle thin-film deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 158-166.	0.9	101
122	Diamond-like-carbon films produced by magnetically guided pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2001, 73, 531-534.	1.1	14
123	Concentration limits for the measurement of boron by electron energy-loss spectroscopy and electron-spectroscopic imaging. Ultramicroscopy, 2001, 87, 135-145.	0.8	19
124	Microstructure and structural defects in MgB2 superconductor. Physica C: Superconductivity and Its Applications, 2001, 356, 239-253.	0.6	101
125	Thin-film regular-array structures with 10-100 nm repeat distance. Nanotechnology, 2001, 12, 11-13.	1.3	23
126	Calibration Specimens for Determining Energy-Dispersive X-ray k-Factors of Boron, Nitrogen, Oxygen, and Fluorine. Microscopy and Microanalysis, 1999, 5, 29-38.	0.2	13

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127	K-Factor Standards for Low-Z Quantification. Microscopy and Microanalysis, 1998, 4, 230-231.	0.2	0