Gerd Duscher

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Time-resolved imaging of gas phase nanoparticle synthesis by laser ablation. Applied Physics Letters, 1998, 72, 2987-2989.	3.3	318
2	Surface plasmon resonance in conducting metal oxides. Journal of Applied Physics, 2006, 100, 054905.	2.5	258
3	Interlayer Coupling in Twisted WSe ₂ /WS ₂ Bilayer Heterostructures Revealed by Optical Spectroscopy. ACS Nano, 2016, 10, 6612-6622.	14.6	249
4	Perovskite Solar Cells with Near 100% Internal Quantum Efficiency Based on Large Single Crystalline Grains and Vertical Bulk Heterojunctions. Journal of the American Chemical Society, 2015, 137, 9210-9213.	13.7	246
5	Bismuth-induced embrittlement of copper grain boundaries. Nature Materials, 2004, 3, 621-626.	27.5	242
6	Void formation during early stages of passivation: Initial oxidation of iron nanoparticles at room temperature. Journal of Applied Physics, 2005, 98, 094308.	2.5	238
7	Synthesis of Millimeter-Size Hexagon-Shaped Graphene Single Crystals on Resolidified Copper. ACS Nano, 2013, 7, 8924-8931.	14.6	178
8	Nonstoichiometry and the Electrical Activity of Grain Boundaries inSrTiO3. Physical Review Letters, 2001, 86, 4056-4059.	7.8	176
9	Structure and Formation Mechanism of Black TiO ₂ Nanoparticles. ACS Nano, 2015, 9, 10482-10488.	14.6	170
10	Transition layers at the SiO2â^•SiC interface. Applied Physics Letters, 2008, 93, .	3.3	140
11	Topological Defects: Origin of Nanopores and Enhanced Adsorption Performance in Nanoporous Carbon. Small, 2012, 8, 3283-3288.	10.0	139
12	Universal Formation of Compositionally Graded Bulk Heterojunction for Efficiency Enhancement in Organic Photovoltaics. Advanced Materials, 2014, 26, 3068-3075.	21.0	139
13	Low Energy Implantation into Transition-Metal Dichalcogenide Monolayers to Form Janus Structures. ACS Nano, 2020, 14, 3896-3906.	14.6	136
14	Direct observation of dislocation dissociation and Suzuki segregation in a Mg–Zn–Y alloy by aberration-corrected scanning transmission electron microscopy. Acta Materialia, 2013, 61, 350-359.	7.9	126
15	Tailoring Vacancies Far Beyond Intrinsic Levels Changes the Carrier Type and Optical Response in Monolayer MoSe _{2â^'<i>x</i>} Crystals. Nano Letters, 2016, 16, 5213-5220.	9.1	121
16	Photoluminescence from gas-suspended SiOx nanoparticles synthesized by laser ablation. Applied Physics Letters, 1998, 73, 438-440.	3.3	108
17	Impurity-Induced Structural Transformation of a MgO Grain Boundary. Physical Review Letters, 1998, 81, 3675-3678.	7.8	108
18	Pulsed Laser Deposition of Photoresponsive Twoâ€Dimensional GaSe Nanosheet Networks. Advanced Functional Materials, 2014, 24, 6365-6371.	14.9	108

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19	High-performance multilayer WSe2 field-effect transistors with carrier type control. Nano Research, 2018, 11, 722-730.	10.4	101
20	Focused helium-ion beam irradiation effects on electrical transport properties of few-layer WSe2: enabling nanoscale direct write homo-junctions. Scientific Reports, 2016, 6, 27276.	3.3	99
21	The influence of atomic structure on the formation of electrical barriers at grain boundaries in SrTiO3. Applied Physics Letters, 1999, 74, 2638-2640.	3.3	90
22	Electronic structure of a grain-boundary model inSrTiO3. Physical Review B, 1999, 60, 2416-2424.	3.2	86
23	Excitonic Dynamics in Janus MoSSe and WSSe Monolayers. Nano Letters, 2021, 21, 931-937.	9.1	86
24	Relationship between 4H-SiCâ^•SiO2 transition layer thickness and mobility. Applied Physics Letters, 2009, 95, 032108.	3.3	85
25	Atomic Column Resolved Electron Energy-Loss Spectroscopy. Physica Status Solidi A, 1998, 166, 327-342.	1.7	84
26	Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe ₂ . Advanced Functional Materials, 2017, 27, 1603850.	14.9	84
27	Twoâ€Dimensional Palladium Diselenide with Strong Inâ€Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition. Advanced Materials, 2020, 32, e1906238.	21.0	81
28	Spatially Mapping Energy Transfer from Single Plasmonic Particles to Semiconductor Substrates via STEM/EELS. Nano Letters, 2015, 15, 3465-3471.	9.1	77
29	Excitonic Effects in Core-Excitation Spectra of Semiconductors. Physical Review Letters, 2000, 85, 2168-2171.	7.8	76
30	Core-hole effects on energy-loss near-edge structure. Ultramicroscopy, 2001, 86, 355-362.	1.9	65
31	Oxidation Resistance of Reactive Atoms in Graphene. Nano Letters, 2012, 12, 4651-4655.	9.1	64
32	Unusual role of epilayer–substrate interactions in determining orientational relations in van der Waals epitaxy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16670-16675.	7.1	64
33	Gold and Silica-Coated Gold Nanoparticles as Thermographic Labels for DNA Detection. Analytical Chemistry, 2006, 78, 3282-3288.	6.5	63
34	Tandem laser ablation synthesis in solution-galvanic replacement reaction (LASiS-GRR) for the production of PtCo nanoalloys as oxygen reduction electrocatalysts. Journal of Power Sources, 2016, 306, 413-423.	7.8	63
35	Guided crystallization of P3HT in ternary blend solar cell based on P3HT:PCPDTBT:PCBM. Energy and Environmental Science, 2014, 7, 3782-3790.	30.8	60
36	The mechanism for polarity inversion of GaN via a thin AlN layer: Direct experimental evidence. Applied Physics Letters, 2007, 91, 203115.	3.3	59

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37	Self-organized bimetallic Ag–Co nanoparticles with tunable localized surface plasmons showing high environmental stability and sensitivity. Nanotechnology, 2012, 23, 275604.	2.6	55
38	Si/SiO ₂ and SiC/SiO ₂ Interfaces for MOSFETs – Challenges and Advances. Materials Science Forum, 2006, 527-529, 935-948.	0.3	54
39	Correlating high power conversion efficiency of PTB7:PC ₇₁ BM inverted organic solar cells with nanoscale structures. Nanoscale, 2015, 7, 15576-15583.	5.6	54
40	Observation of Nanoscale Morphological and Structural Degradation in Perovskite Solar Cells by in Situ TEM. ACS Applied Materials & amp; Interfaces, 2016, 8, 32333-32340.	8.0	54
41	High Conduction Hopping Behavior Induced in Transition Metal Dichalcogenides by Percolating Defect Networks: Toward Atomically Thin Circuits. Advanced Functional Materials, 2017, 27, 1702829.	14.9	52
42	Silicon and zinc telluride nanoparticles synthesized by pulsed laser ablation: size distributions and nanoscale structure. Applied Surface Science, 1998, 127-129, 355-361.	6.1	51
43	Oxidationâ€Resistant Silver Nanostructures for Ultrastable Plasmonic Applications. Advanced Materials, 2013, 25, 2045-2050.	21.0	51
44	Silicon and zinc telluride nanoparticles synthesized by low energy density pulsed laser ablation into ambient gases. Journal of Materials Research, 1999, 14, 359-370.	2.6	48
45	Digital Transfer Growth of Patterned 2D Metal Chalcogenides by Confined Nanoparticle Evaporation. ACS Nano, 2014, 8, 11567-11575.	14.6	47
46	Ferroplasmons: Intense Localized Surface Plasmons in Metal-Ferromagnetic Nanoparticles. ACS Nano, 2014, 8, 9790-9798.	14.6	46
47	Ultrathin GaN quantum disk nanowire LEDs with sub-250 nm electroluminescence. Nanoscale, 2016, 8, 8024-8032.	5.6	44
48	Graphitic coated Al nanoparticles manufactured as superior energetic materials via laser ablation synthesis in organic solvents. Applied Surface Science, 2019, 473, 156-163.	6.1	44
49	Controllable Growth of Perovskite Films by Roomâ€Temperature Air Exposure for Efficient Planar Heterojunction Photovoltaic Cells. Angewandte Chemie - International Edition, 2015, 54, 14862-14865.	13.8	41
50	Z-contrast imaging of dislocation cores at the GaAs/Si interface. Applied Physics Letters, 2002, 81, 2728-2730.	3.3	40
51	Evaluation of the microstructure of dry and hydrated perfluorosulfonic acid ionomers: microscopy and simulations. Journal of Materials Chemistry A, 2013, 1, 938-944.	10.3	39
52	The reaction between a TiNi shape memory thin film and silicon. Journal of Materials Research, 1997, 12, 1734-1740.	2.6	38
53	Scanning transmission electron microscope observations of defects in as-grown and pre-strained Mo alloy fibers. Acta Materialia, 2011, 59, 2172-2179.	7.9	37
54	Structure characterization and strain relief analysis in CVD growth of boron phosphide on silicon carbide. Applied Surface Science, 2015, 327, 7-12.	6.1	36

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55	Multiscale characterization of irradiation behaviour of ion-irradiated SiC/SiC composites. Acta Materialia, 2018, 161, 207-220.	7.9	36
56	Plasma plume characteristics and properties of pulsed laser deposited diamond-like carbon films. Journal of Applied Physics, 2003, 93, 3627-3634.	2.5	34
57	Effect of Pb on the mechanical properties of nanocrystalline Al. Scripta Materialia, 2006, 55, 155-158.	5.2	34
58	Tungsten Diselenide Patterning and Nanoribbon Formation by Gasâ€Assisted Focusedâ€Heliumâ€Ionâ€Beamâ€Induced Etching. Small Methods, 2017, 1, 1600060.	8.6	33
59	Nonequilibrium Synthesis of TiO ₂ Nanoparticle "Building Blocks―for Crystal Growth by Sequential Attachment in Pulsed Laser Deposition. Nano Letters, 2017, 17, 4624-4633.	9.1	33
60	Synthesis and atomic-level characterization of Ni nanoparticles in Al2O3 matrix. Applied Physics Letters, 2002, 81, 4204-4206.	3.3	32
61	Effect of microstructure on diffusion of copper in TiN films. Journal of Applied Physics, 2003, 93, 5210-5214.	2.5	32
62	Direct Observation of Inversion Domain Boundaries of GaN on <i>c</i> ‣apphire at Subâ€Ã¥ngstrom Resolution. Advanced Materials, 2008, 20, 2162-2165.	21.0	31
63	Feature extraction via similarity search: application to atom finding and denoising in electron and scanning probe microscopy imaging. Advanced Structural and Chemical Imaging, 2018, 4, 3.	4.0	31
64	Nonâ€Equilibrium Synthesis of Highly Active Nanostructured, Oxygenâ€Incorporated Amorphous Molybdenum Sulfide HER Electrocatalyst. Small, 2020, 16, e2004047.	10.0	29
65	AbÂlnitioldentification of the Nitrogen Diffusion Mechanism in Silicon. Physical Review Letters, 2005, 95, 025901.	7.8	28
66	Focused helium and neon ion beam induced etching for advanced extreme ultraviolet lithography mask repair. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	1.2	28
67	Excess carbon in silicon carbide. Journal of Applied Physics, 2010, 108, 123705.	2.5	26
68	Dose dependence of helium bubble formation in nano-engineered SiC at 700°C. Journal of Nuclear Materials, 2016, 472, 153-160.	2.7	26
69	Distribution and segregation of arsenic at theSiO2/Si interface. Journal of Applied Physics, 2008, 104, 023518.	2.5	25
70	Continuous Wave Resonant Photon Stimulated Electron Energy-Gain and Electron Energy-Loss Spectroscopy of Individual Plasmonic Nanoparticles. ACS Photonics, 2019, 6, 2499-2508.	6.6	25
71	Nb on (110) TiO2 (rutile): growth, structure, and chemical composition of the interface. Surface Science, 2000, 446, 219-228.	1.9	24
72	Microstructure of precipitated Au nanoclusters in TiO2. Journal of Applied Physics, 2004, 95, 8185-8193.	2.5	24

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73	Low-Temperature Resistance Anomaly atSrTiO3Grain Boundaries: Evidence for an Interface-Induced Phase Transition. Physical Review Letters, 2005, 95, 197601.	7.8	23
74	Bottom up synthesis of boron-doped graphene for stable intermediate temperature fuel cell ell ell ell ell ell electrodes. Carbon, 2017, 123, 605-615.	10.3	23
75	Analyzing line scan EELS data with neural pattern recognition. Ultramicroscopy, 1995, 59, 229-239.	1.9	21
76	Exploring Photothermal Pathways via in Situ Laser Heating in the Transmission Electron Microscope: Recrystallization, Grain Growth, Phase Separation, and Dewetting in Ag0.5Ni0.5 Thin Films. Microscopy and Microanalysis, 2018, 24, 647-656.	0.4	21
77	Detailed arsenic concentration profiles at Si/SiO2 interfaces. Journal of Applied Physics, 2008, 104, 043507.	2.5	20
78	Investigating the atomic scale structure and chemistry of grain boundaries in high- T c superconductors. Micron, 1999, 30, 425-436.	2.2	19
79	Cu, Nb and V on (110) TiO2 (rutile): epitaxy and chemical reactions. Thin Solid Films, 2001, 398-399, 419-426.	1.8	19
80	Copper Segregation to the Â5 (310)/[001] Symmetric Tilt Grain Boundary in Aluminum. Journal of Materials Science, 2004, 12, 165-174.	1.2	19
81	Transient Growth Bands in Silicon Nitride Cooled in Rareâ€Earthâ€Based Glass. Journal of the American Ceramic Society, 1997, 80, 1397-1404.	3.8	19
82	Electron energy loss spectroscopy of polytetrafluoroethylene: experiment and first principles calculations. Microscopy (Oxford, England), 2014, 63, 73-83.	1.5	19
83	Strain-Induced Growth of Twisted Bilayers during the Coalescence of Monolayer MoS ₂ Crystals. ACS Nano, 2021, 15, 4504-4517.	14.6	19
84	Aberration-Corrected Scanning Transmission Electron Microscopy: The Potential for Nano- and Interface Science. International Journal of Materials Research, 2003, 94, 350-357.	0.8	18
85	The Role of Selection Pressure in RNA-Mediated Evolutionary Materials Synthesis. Journal of the American Chemical Society, 2007, 129, 15340-15346.	13.7	18
86	The impact of selective solvents on the evolution of structure and function in solvent annealed organic photovoltaics. RSC Advances, 2014, 4, 27931-27938.	3.6	18
87	Atomic structures of interfacial solute gateways to Î,′ precipitates in Al-Cu alloys. Acta Materialia, 2021, 212, 116891.	7.9	18
88	The Electronic Structure of Pristine and Doped (100) Tilt Grain Boundaries in SrTiO3. Journal of Materials Science, 2000, 8, 199-208.	1.2	16
89	Transmission electron microscopy studies of regrown GaN Ohmic contacts on patterned substrates for metal oxide semiconductor field effect transistor applications. Applied Physics Letters, 2007, 90, 204106.	3.3	16
90	Quantitative Phase Fraction Detection in Organic Photovoltaic Materials through EELS Imaging. Polymers, 2015, 7, 2446-2460.	4.5	16

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91	Integration of amorphous ferromagnetic oxides with multiferroic materials for room temperature magnetoelectric spintronics. Scientific Reports, 2020, 10, 3583.	3.3	16
92	A combined experimental and theoretical approach to grain boundary structure and segregation. Physica B: Condensed Matter, 1999, 273-274, 453-457.	2.7	15
93	Characterization of chain conformations in perfluorosulfonic acid membranes using electron energy loss spectroscopy. RSC Advances, 2015, 5, 2368-2373.	3.6	15
94	Black Anatase Formation by Annealing of Amorphous Nanoparticles and the Role of the Ti ₂ O ₃ Shell in Self-Organized Crystallization by Particle Attachment. ACS Applied Materials & Interfaces, 2017, 9, 22018-22025.	8.0	15
95	Recent progress in characterization of the core–shell structure of black titania. Journal of Materials Research, 2019, 34, 1138-1153.	2.6	15
96	Oxide precipitation at silicon grain boundaries. Applied Physics Letters, 1997, 70, 327-329.	3.3	14
97	Interfacial and Solvent Effects Govern the Formation of Tris(dibenzylidenacetone)dipalladium(0) Microstructures. Langmuir, 2008, 24, 7803-7809.	3.5	14
98	In situ laser reflectivity to monitor and control the nucleation and growth of atomically thin 2D materials*. 2D Materials, 2020, 7, 025048.	4.4	14
99	Selective Antisite Defect Formation in WS ₂ Monolayers via Reactive Growth on Dilute Wâ€Au Alloy Substrates. Advanced Materials, 2022, 34, e2106674.	21.0	14
100	Stabilized Synthesis of 2D Verbeekite: Monoclinic PdSe ₂ Crystals with High Mobility and In-Plane Optical and Electrical Anisotropy. ACS Nano, 2022, 16, 13900-13910.	14.6	14
101	Roughness of the SiC/SiO2 vicinal interface and atomic structure of the transition layers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	13
102	Experimentally determined edge orientation of triangular crystals of hexagonal boron nitride. Physica Status Solidi (B): Basic Research, 2017, 254, 1700069.	1.5	13
103	Atomic structure of a Ca-doped [001] tilt grain boundary in MgO. Journal of Electron Microscopy, 1998, 47, 115-120.	0.9	12
104	Formation of nanoscale voids and related metallic impurity gettering in high-energy ion-implanted and annealed epitaxial silicon. Applied Physics Letters, 2003, 83, 1367-1369.	3.3	11
105	Precipitation of Au nanoclusters in SrTiO3 by ion implantation. Journal of Applied Physics, 2004, 95, 5060-5068.	2.5	11
106	Modeling and characterization of atomically sharp "perfect―Ge/SiO2 interfaces. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 156-161.	3.5	10
107	Quantitative nanoscale local strain profiling in embedded SiGe metal-oxide-semiconductor structures. Applied Physics Letters, 2007, 90, 191907.	3.3	10
108	High-temperature transformation of Fe-decorated single-wall carbon nanohorns to nanooysters: a combined experimental and theoretical study. Nanoscale, 2013, 5, 1849-1857.	5.6	10

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109	Laser-Induced Self-Assembled Nanostructures on Electron-Transparent Substrates. Particle and Particle Systems Characterization, 2015, 32, 476-482.	2.3	10
110	Localized surface plasmon sensing based investigation of nanoscale metal oxidation kinetics. Nanotechnology, 2015, 26, 205701.	2.6	10
111	Direct imaging of the nitrogen-rich edge in monolayer hexagonal boron nitride and its band structure tuning. Nanoscale, 2019, 11, 20676-20684.	5.6	10
112	Atomic-Scale Engineering of the SiC-SiO ₂ Interface. Materials Science Forum, 2000, 338-342, 1133-1136.	0.3	9
113	Atomic level imaging of Au nanocluster dispersed in TiO2 and SrTiO3. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 380-382.	1.4	9
114	Novel Iron-based ternary amorphous oxide semiconductor with very high transparency, electronic conductivity and mobility. Scientific Reports, 2015, 5, 18157.	3.3	9
115	Twoâ€Dimensionally Ordered Plasmonic and Magnetic Nanostructures on Transferable Electronâ€Transparent Substrates. Particle and Particle Systems Characterization, 2015, 32, 970-978.	2.3	9
116	Controlling the exciton emission of gold coated GaAs–AlGaAs core–shell nanowires with an organic spacer layer. Nanotechnology, 2016, 27, 485204.	2.6	9
117	Decomposition of the ZrO2 electrolyte in contact with Ni: Structure and chemical composition of the Ni–electrolyte interface. Journal of Materials Research, 1999, 14, 3340-3345.	2.6	8
118	Cathodoluminescent properties at nanometer resolution through Z-contrast scanning transmission electron microscopy. Applied Physics Letters, 2000, 77, 594-596.	3.3	8
119	Nano-scale analysis of precipitates in nitrogen-doped Czochralski silicon. Microelectronic Engineering, 2003, 66, 305-313.	2.4	8
120	Investigating the Structureâ€Property Relationships at Grain Boundaries in MgO Using Bondâ€Valence Pair Potentials and Multiple Scattering Analysis. Journal of the American Ceramic Society, 1999, 82, 366-372.	3.8	8
121	Direct imaging of quantum antidots in MgO dispersed with Au nanoclusters. Applied Physics Letters, 2005, 87, 153104.	3.3	8
122	Mapping the layer count of few-layer hexagonal boron nitride at high lateral spatial resolutions. 2D Materials, 2018, 5, 015007.	4.4	8
123	Consequence of Nanometerâ€Scale Property Variations to Macroscopic Properties of CrOCN Thin Films. Journal of the American Ceramic Society, 2001, 84, 2873-2881.	3.8	7
124	Atomic Resolution Imaging of Au Nanocluster Dispersed in TiO2, SrTiO3, and MgO. Journal of the American Ceramic Society, 2005, 88, 3184-3191.	3.8	7
125	Self-assembled three-dimensional Cu–Ge nanoweb composite. Nanotechnology, 2008, 19, 135603.	2.6	7
126	Enhanced absorption in ultrathin Si by NiSi ₂ nanoparticles. Nanomaterials and Energy, 2013, 2, 11-19.	0.2	7

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127	Surface Mechanoengineering of a Zr-Based Bulk Metallic Glass via Ar-Nanobubble Doping To Probe Cell Sensitivity to Rigid Materials. ACS Applied Materials & Interfaces, 2017, 9, 43429-43437.	8.0	7
128	Measuring the areal density of nanomaterials by electron energy-loss spectroscopy. Ultramicroscopy, 2019, 196, 154-160.	1.9	7
129	Understanding Substrate-Guided Assembly in van der Waals Epitaxy by <i>in Situ</i> Laser Crystallization within a Transmission Electron Microscope. ACS Nano, 2021, 15, 8638-8652.	14.6	7
130	Dispersion forces and Hamaker constants for intergranular films in silicon nitride from spatially resolved-valence electron energy loss spectrum imaging. Acta Materialia, 1998, 46, 2271-2287.	7.9	7
131	Investigation of the local superconducting properties in Ag-sheathed BSCCO tapes by STEM. Physica C: Superconductivity and Its Applications, 1998, 298, 1-9.	1.2	6
132	Fe ₁₆ Al ₁₄ B ₂ phase in Fe–Al alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2000, 80, 2737-2745.	0.6	6
133	In Situ Point Defect Generation and Agglomeration during Electron-Beam Irradiation of Nitrogen-Doped Czochralski Silicon. Electrochemical and Solid-State Letters, 2003, 6, G134.	2.2	6
134	Direct observation of substitutional Au atoms inSrTiO3. Physical Review B, 2004, 70, .	3.2	6
135	A new understanding of near-threshold damage for 200 keV irradiation in silicon. Journal of Materials Science, 2005, 40, 3639-3650.	3.7	6
136	Exciton emission from hybrid organic and plasmonic polytype InP nanowire heterostructures. Materials Research Express, 2015, 2, 045001.	1.6	6
137	Emission dynamics of hybrid plasmonic gold/organic GaN nanorods. Nanotechnology, 2017, 28, 505710.	2.6	6
138	Local and Global Bonding at the Si-SiO2 Interface. Springer Series in Materials Science, 2001, , 193-218.	0.6	6
139	Interfacial Electronic Structure and Full Spectral Hamaker Constants of Si3N4 Intergranular Films from VUV and Sr-Veel Spectroscopy. Materials Research Society Symposia Proceedings, 1994, 357, 243.	0.1	5
140	Self-assembling of nanocavities inTiO2dispersed with Au nanoclusters. Physical Review B, 2005, 72, .	3.2	5
141	Threeâ€Dimensional Geometry of Nanometerâ€Scale AlN Pits: A New Template for Quantum Dots?. Advanced Materials, 2008, 20, 134-137.	21.0	5
142	Peculiar Plasmon Peak Position in Electron Energy Loss Spectrum of Hexagonal Boron Nitride/Graphene Double Layer. Microscopy and Microanalysis, 2015, 21, 985-986.	0.4	5
143	Transmission Electron Microscopy: Overview and Challenges. AIP Conference Proceedings, 2003, , .	0.4	4
144	Segregation and enhanced diffusion of nitrogen in silicon induced by low energy ion bombardment. Journal of Applied Physics, 2005, 97, 083534.	2.5	4

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145	Thermal annealing effect on the interface structure of high-κ LaScO3 on silicon. Applied Physics Letters, 2007, 91, 152906.	3.3	4
146	Characterization of the Segregation of Arsenic at the Interface SiO ₂ /Si. Materials Research Society Symposia Proceedings, 2007, 994, 1.	0.1	4
147	Carbon Clusters as Possible Defects in the SiC–SiO ₂ Interface. Journal of Computational and Theoretical Nanoscience, 2009, 6, 1305-1310.	0.4	4
148	Reliable Quantification of EELS Spectra with a Simple Model–Based Approach. Microscopy and Microanalysis, 2009, 15, 446-447.	0.4	4
149	Optimization of homoepitaxially grown AlGaN/GaN heterostructures. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2292-2299.	1.8	4
150	Versatile Tunability of the Metal Insulator Transition in (TiO ₂) <i>_m</i> /(VO ₂) <i>_m</i> Superlattices. Advanced Functional Materials, 2020, 30, 2004914.	14.9	4
151	Direct Detection of Highly Localized Metal-Metal Interface Plasmons from Bimetallic Nanoparticles. Plasmonics, 2021, 16, 957-964.	3.4	4
152	Laser Interactions for the Synthesis and In Situ Diagnostics of Nanomaterials. Springer Series in Materials Science, 2014, , 143-173.	0.6	4
153	Amorphous SiO ₂ Precipitates at Silicon Grain Boundaries. Materials Science Forum, 1996, 207-209, 713-716.	0.3	3
154	The Si/SiO ₂ Interface: Atomic Structures, Composition, Strain And Energetics. Microscopy and Microanalysis, 1999, 5, 122-123.	0.4	3
155	Correlating Atomic Scale Experimental Observations to Develop Three-Dimensional Structural Models for Grain Boundaries in Oxides. Microscopy and Microanalysis, 1999, 5, 48-57.	0.4	3
156	"Umbrella―like precipitates in nitrogen-doped Czochralski silicon wafers. Applied Physics Letters, 2004, 84, 1889-1891.	3.3	3
157	Quantum stability and superconducting properties of ultrathin alloy films made from bulk immiscible elements: Pb and Ga. Physical Review B, 2011, 84, .	3.2	3
158	Nanoporous Carbon: Topological Defects: Origin of Nanopores and Enhanced Adsorption Performance in Nanoporous Carbon (Small 21/2012). Small, 2012, 8, 3282-3282.	10.0	3
159	The effect of zirconium implantation on the structure of sapphire. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 190-195.	1.4	3
160	Plasmon Excitations in Bimetallic Ag Nanostructures by Monochromated E-Beam. Microscopy and Microanalysis, 2013, 19, 1510-1511.	0.4	3
161	Transition Metal Dichalcogenides: Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe ₂ (Adv. Funct. Mater. 19/2017). Advanced Functional Materials, 2017, 27, .	14.9	3
162	Explosive vaporization of metallic nanostructures on a surface by nanosecond laser heating under fluids. Journal of Applied Physics, 2021, 129, .	2.5	3

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163	Bimetallic Fe–Ag Nanopyramid Arrays for Optical Communication Applications. ACS Applied Nano Materials, 2021, 4, 5758-5767.	5.0	3

Binary Oxide Superlattices: Versatile Tunability of the Metal Insulator Transition in (TiO₂)<i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</i>)(i>_m</sub></sub></sub></sub></sub></sub></sub></sub></sub></sub></sub></sub> 164

165	Bonding, Defects, And Defect Dynamics In The Sic-SiO2 System. Materials Research Society Symposia Proceedings, 2000, 640, 1.	0.1	2
166	The Local Electronic structure at Grain Boundaries and Hetero- Interfaces in ZnO Thin Films Grown by Laser Deposition Materials Research Society Symposia Proceedings, 2002, 727, 1.	0.1	2
167	Investigation of the detailed structure of atomically sharp Ge/SiO/sub 2/ interfaces. , 2003, , .		2
168	Chemical composition changes across the interface of amorphous LaScO3 on Si (001). Applied Physics Letters, 2007, 91, 152901.	3.3	2
169	Characterization of the pile-up of As at the SiO <inf>2</inf> /Si interface. , 2007, , .		2
170	Anti-Site Defects in Perovskite YAlO3:Ce Using Aberration-Corrected STEM. Microscopy and Microanalysis, 2014, 20, 132-133.	0.4	2
171	Direct Observation of Defects in Hexagonal Boron Nitride Monolayers. Microscopy and Microanalysis, 2014, 20, 1738-1739.	0.4	2
172	Ferroplasmons: Novel Plasmons in Metal-Ferromagnetic Bimetallic Nanostructures. Microscopy and Microanalysis, 2015, 21, 2381-2382.	0.4	2
173	Nanosecond switchable localized surface plasmons through resettable contact angle behavior in silver nanoparticles. Nanotechnology, 2020, 31, 355503.	2.6	2
174			
1/4	Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152.	21.0	2
174	2D Materials: Twoa@Dimensional Paladium Diselende with Strong Ina@Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152. Improved Measurement and Analysis of Series of Valence Electron Energy Loss Spectra and The Local Electronic Structure. Microscopy and Microanalysis, 1997, 3, 943-944.	21.0 0.4	2
174 175 176	2D Materials: Twoa@Dimensional Palladium Diselenide with Strong Ina@Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152. Improved Measurement and Analysis of Series of Valence Electron Energy Loss Spectra and The Local Electronic Structure. Microscopy and Microanalysis, 1997, 3, 943-944. Time-Resolved Imaging and Photoluminescence of Gas-Suspended Nanoparticles Synthesized by Laser Ablation: Dynamics, Transport, Collection, and Ex Situ Analysis. Materials Research Society Symposia Proceedings, 1998, 526, 47.	21.0 0.4 0.1	2 1 1
174 175 176 177	2D Materials: Twoa@Dimensional Palladium Diselende with Strong Ina@Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152. Improved Measurement and Analysis of Series of Valence Electron Energy Loss Spectra and The Local Electronic Structure. Microscopy and Microanalysis, 1997, 3, 943-944. Time-Resolved Imaging and Photoluminescence of Gas-Suspended Nanoparticles Synthesized by Laser Ablation: Dynamics, Transport, Collection, and Ex Situ Analysis. Materials Research Society Symposia Proceedings, 1998, 526, 47. Microscopic and Theoretical Investigations of the Si-SiO2 Interface. Materials Research Society Symposia Proceedings, 1999, 592, 42.	21.0 0.4 0.1 0.1	2 1 1 1
174 175 176 177 178	 2D Materials: Twoa@Dimensional Panadium Diselenide with Strong Ina@Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152. Improved Measurement and Analysis of Series of Valence Electron Energy Loss Spectra and The Local Electronic Structure. Microscopy and Microanalysis, 1997, 3, 943-944. Time-Resolved Imaging and Photoluminescence of Gas-Suspended Nanoparticles Synthesized by Laser Ablation: Dynamics, Transport, Collection, and Ex Situ Analysis. Materials Research Society Symposia Proceedings, 1998, 526, 47. Microscopic and Theoretical Investigations of the Si-SiO2 Interface. Materials Research Society Symposia Proceedings, 1999, 592, 42. Non-Stoichiometry at Tilt Grain Boundaries in SrTiO3. Microscopy and Microanalysis, 2000, 6, 114-115. 	21.0 0.4 0.1 0.1 0.4	2 1 1 1 1
174 175 176 177 178 179	 2D Materials: TwoaeOlmensional Palladium Diselenide with Strong inaePlane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition (Adv. Mater. 19/2020). Advanced Materials, 2020, 32, 2070152. Improved Measurement and Analysis of Series of Valence Electron Energy Loss Spectra and The Local Electronic Structure. Microscopy and Microanalysis, 1997, 3, 943-944. Time-Resolved Imaging and Photoluminescence of Gas-Suspended Nanoparticles Synthesized by Laser Ablation: Dynamics, Transport, Collection, and Ex Situ Analysis. Materials Research Society Symposia Proceedings, 1998, 526, 47. Microscopic and Theoretical Investigations of the Si-SiO2 Interface. Materials Research Society Symposia Proceedings, 1999, 592, 42. Non-Stoichiometry at Tilt Grain Boundaries in SrTiO3. Microscopy and Microanalysis, 2000, 6, 114-115. Simulation and Electron Energy-Loss Spectroscopy of Electron Beam Induced Point Defect Agglomerations in Silicon. Materials Research Society Symposia Proceedings, 2004, 810, 178. 	21.0 0.4 0.1 0.1 0.4	2 1 1 1 1 1

#	Article	IF	CITATIONS
181	Catalytic nanoparticles for carbon nanotube growth synthesized by through thin film femtosecond laser ablation. Proceedings of SPIE, 2014, , .	0.8	1
182	Chemical composition study of high- <i>k</i> La-silicate gate stacks at sub-nanometer scale. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2537-2540.	1.8	1
183	Combine Simulation and Experiment EELS to Characterize Ionomer Conformation. Microscopy and Microanalysis, 2015, 21, 1653-1654.	0.4	1
184	High efficiency core-loss EELS analyzing from the viewpoint of chemometrics. Materials Characterization, 2017, 129, 313-318.	4.4	1
185	Laser Synthesis, Processing, and Spectroscopy of Atomically-Thin Two Dimensional Materials. Springer Series in Materials Science, 2018, , 1-37.	0.6	1
186	Investigation of Nanostructured Germanium/Silicon Dioxide Interfaces. Journal of Computational and Theoretical Nanoscience, 2004, 1, 286-295.	0.4	1
187	In Situ Diagnostics of Nanomaterial Synthesis by Laser Ablation: Time-resolved Photoluminescence Spectra and Imaging of Gas-Suspended Nanoparticles Deposited for Thin Films. Materials Research Society Symposia Proceedings, 1998, 536, 359.	0.1	0
188	Atomic Scale Structure-Property Relationships of Defects and Interfaces in Ceramics. Microscopy and Microanalysis, 1998, 4, 556-557.	0.4	0
189	Investigation of the Local Superconducting Properties at Grain Boundaries in High-Tc Superconductors. Microscopy and Microanalysis, 1998, 4, 690-691.	0.4	0
190	Investigating Ca Segregated to a Grain Boundaries in MgO Using Multiple Scattering Analysis of Electron Energy Loss Spectra. Microscopy and Microanalysis, 1998, 4, 776-777.	0.4	0
191	Compositional Imaging At The Sub- 2 Ã Level Using A 200 Kv Schottky Field Emission Transmission Electron Microscope. Microscopy and Microanalysis, 1998, 4, 138-139.	0.4	0
192	Atomic-Resolution Z-Contrast Imaging and its Application to Compositional Ordering and Segregation. Materials Research Society Symposia Proceedings, 1999, 583, 235.	0.1	0
193	The Origin of Electrical Activity at Grain Boundaries in Perovskites and Related Materials. Materials Research Society Symposia Proceedings, 2000, 654, 131.	0.1	0
194	The Role of Non-Stoichiometry in the Electrical Activity of Grain Boundaries in SrTiO3. Microscopy and Microanalysis, 2000, 6, 184-185.	0.4	0
195	Core Hole Effects on Eels Near-Edge Fine Structure in Semiconductors and Insulators. Microscopy and Microanalysis, 2001, 7, 1174-1175.	0.4	0
196	Non-Stoichiometry at Dislocation Cores in Perovskites and Related Materials. Microscopy and Microanalysis, 2001, 7, 306-307.	0.4	0
197	The Si/SiO2 Interface: Atomic Structures, Composition, Strain and Energetics. Microscopy and Microanalysis, 2001, 7, 768-769.	0.4	0
198	Diffusion Characteristics of Cu in TiN Thin Films. Materials Research Society Symposia Proceedings, 2001, 686, 1.	0.1	0

Gerd Duscher

#	Article	IF	CITATIONS
199	Critical Currents at Grain Boundaries in High Temperature Superconductors. Materials Research Society Symposia Proceedings, 2001, 689, 1.	0.1	0
200	Z-contrast Imaging and EELS of Dislocation Cores at the Si/GaAs Interface. Materials Research Society Symposia Proceedings, 2002, 744, 1.	0.1	0
201	STEM Investigations of Defects and Interfaces In Complex Oxides. Microscopy and Microanalysis, 2002, 8, 384-385.	0.4	0
202	Z-Contrast Imaging of Dislocation Cores at the Si/GaAs Interface. Microscopy and Microanalysis, 2002, 8, 1604-1605.	0.4	0
203	Atomic Resolution Z-contrast Imaging and EELS: Application for Ge/SiO2 Interface. Microscopy and Microanalysis, 2003, 9, 818-819.	0.4	0
204	Atomistic Modeling of the Detailed Structure of Si/SiO2 Interfaces Using AIDATEM (Ab-initio Interface) Tj ETQq0 0 9, 826-827.	0 rgBT /0 0.4	Overlock 101 0
205	Role of Fe and Ni Nanoparticles on Mechanical Properties of Alumina Thin Films deposited by Laser Ablation. Materials Research Society Symposia Proceedings, 2005, 890, 1.	0.1	0
206	Characterization of the origin of band states in the SiC/SiO ₂ interface. , 2007, , .		0
207	Absorption enhancement by Ni-silicide nanostructures embedded in ultra-thin Si films. Microscopy and Microanalysis, 2012, 18, 1862-1863.	0.4	0
208	Nonequilibrium laser synthesis and real-time diagnostics of carbon nanomaterial growth. , 2012, , .		0
209	Electron Energy-Loss Spectroscopic Imaging for Phase Detection in Organic Photovoltaics. Microscopy and Microanalysis, 2014, 20, 538-539.	0.4	0
210	Nanoscopic imaging of energy transfer from single plasmonic particles to semiconductor substrates via STEM/EELS. Microscopy and Microanalysis, 2015, 21, 1909-1910.	0.4	0
211	Characterization of Sulfonated Polysulfone Polymers by EELS. Microscopy and Microanalysis, 2015, 21, 1679-1680.	0.4	0
212	Atomic Structure and Properties of Dislocations and Grain Boundaries. , 2016, , .		0
213	Exciton emission from plasmonic-organic-Ill–V-semiconductor nanowires and nanorods. , 2016, , .		0
214	New approaches for synthesis and processing of 2D materials (Conference Presentation). , 2017, , .		0
215	Correlating the optical properties of WS2 monolayers grown by CVD with isoelectronic Mo doping level (Conference Presentation). , 2017, , .		0
216	Layer Count Mapping of Multilayer Hexagonal Boron Nitride Thin Films. Microscopy and Microanalysis, 2017, 23, 412-413.	0.4	0

#	Article	IF	CITATIONS
217	Quantification of Low Voltage Images of 2-dimensional Materials in Aberration Corrected Scanning Transmission Electron Microscopy Microscopy and Microanalysis, 2017, 23, 464-465.	0.4	0
218	Mapping Giant Oscillator Excitons in Semiconducting Nano Wires. Microscopy and Microanalysis, 2017, 23, 374-375.	0.4	0
219	In Situ Laser Synthesis of 2D WSe2 Within TEM. Microscopy and Microanalysis, 2020, 26, 1120-1121.	0.4	0
220	Synthesis and characterization of amorphous Fe2.75Dy-oxide thin films demonstrating room-temperature semiconductor, magnetism, and optical transparency. Journal of Applied Physics, 2021, 129, 035701.	2.5	0
221	Dislocations in Semiconductors: Atomic Structure and Properties. , 2001, , 2312-2325.		0
222	Novel Iron-Based Amorphous Transparent Conducting Oxide. , 2016, , .		0
223	Selective Antisite Defect Formation in WS ₂ Monolayers via Reactive Growth on Dilute Wâ€Au Alloy Substrates (Adv. Mater. 3/2022). Advanced Materials, 2022, 34, .	21.0	0
224	Aberration-corrected scanning transmission electron microscopy: the potential for nano- and interface science. International Journal of Materials Research, 2022, 94, 350-357.	0.3	0