

Gregor Hlawacek

List of Publications by Year in descending order

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96
papers

2,204
citations

218677

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254184

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99
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99
docs citations

99
times ranked

2495
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of Step-Edge Barriers in Organic Thin-Film Growth. <i>Science</i> , 2008, 321, 108-111.	12.6	190
2	Helium ion microscopy. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2014, 32, .	1.2	170
3	Bio-recycling of metals: Recycling of technical products using biological applications. <i>Biotechnology Advances</i> , 2018, 36, 1048-1062.	11.7	114
4	Oriented Sexiphenyl Single Crystal Nanoneedles on TiO ₂ (110). <i>Advanced Materials</i> , 2004, 16, 2159-2162.	21.0	89
5	Supported Two-Dimensional Materials under Ion Irradiation: The Substrate Governs Defect Production. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30827-30836.	8.0	76
6	Influence of surface temperature and surface modifications on the initial layer growth of para-hexaphenyl on mica (001). <i>Surface Science</i> , 2007, 601, 2152-2160.	1.9	65
7	Initial stages of a para-hexaphenyl film growth on amorphous mica. <i>Physical Review B</i> , 2011, 83, .	3.2	65
8	Smooth Growth of Organic Semiconductor Films on Graphene for High-Efficiency Electronics. <i>Nano Letters</i> , 2011, 11, 333-337.	9.1	58
9	Molecular alignments in sexiphenyl thin films epitaxially grown on muscovite. <i>Thin Solid Films</i> , 2003, 443, 108-114.	1.8	56
10	Nucleation and growth of thin films of rod-like conjugated molecules. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 143202.	1.8	50
11	Spontaneous rearrangement of para-sexiphenyl crystallites into nano-fibers. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 82, 665-669.	2.3	46
12	Nanometer scale elemental analysis in the helium ion microscope using time of flight spectrometry. <i>Ultramicroscopy</i> , 2016, 162, 91-97.	1.9	44
13	Coherent random lasing in the deep blue from self-assembled organic nanofibers. <i>Journal of Applied Physics</i> , 2006, 99, 034305.	2.5	42
14	Channeling in helium ion microscopy: Mapping of crystal orientation. <i>Beilstein Journal of Nanotechnology</i> , 2012, 3, 501-506.	2.8	38
15	Digging gold: keV He ⁺ ion interaction with Au. <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 453-460.	2.8	37
16	Growth kinetics, structure, and morphology of para-quaterphenyl thin films on gold(111). <i>Journal of Chemical Physics</i> , 2004, 121, 2272-2277.	3.0	36
17	Surface modifications by gas plasma control osteogenic differentiation of MC3T3-E1 cells. <i>Acta Biomaterialia</i> , 2012, 8, 2969-2977.	8.3	36
18	Direct Depth- and Lateral- Imaging of Nanoscale Magnets Generated by Ion Impact. <i>Scientific Reports</i> , 2015, 5, 16786.	3.3	35

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19	Imaging ultra thin layers with helium ion microscopy: Utilizing the channeling contrast mechanism. <i>Beilstein Journal of Nanotechnology</i> , 2012, 3, 507-512.	2.8	33
20	To see or not to see: Imaging surfactant coated nano-particles using HIM and SEM. <i>Ultramicroscopy</i> , 2013, 135, 89-94.	1.9	30
21	Strain Anisotropy and Magnetic Domains in Embedded Nanomagnets. <i>Small</i> , 2019, 15, e1904738.	10.0	30
22	Structure and morphology of sexiphenyl thin films grown on aluminium (111). <i>Organic Electronics</i> , 2004, 5, 45-51.	2.6	29
23	Morphology and growth kinetics of organic thin films deposited by hot wall epitaxy. <i>Organic Electronics</i> , 2004, 5, 23-27.	2.6	29
24	The epitaxial sexiphenyl (001) monolayer on TiO ₂ (110): A grazing incidence X-ray diffraction study. <i>Surface Science</i> , 2006, 600, 4645-4649.	1.9	26
25	Diffusion versus sticking anisotropy: Anisotropic growth of organic molecular films. <i>Surface Science</i> , 2006, 600, L313-L317.	1.9	26
26	Electronic transport in helium-ion-beam etched encapsulated graphene nanoribbons. <i>Carbon</i> , 2017, 119, 419-425.	10.3	26
27	Nanoscale Patterning of Organosilane Molecular Thin Films from the Gas Phase and Its Applications: Fabrication of Multifunctional Surfaces and Large Area Molecular Templates for Site-Selective Material Deposition. <i>Langmuir</i> , 2012, 28, 3045-3052.	3.5	25
28	Determination of critical island size in para-sexiphenyl islands on SiO ₂ using capture-zone scaling. <i>EPL Applied Physics</i> , 2011, 55, 23902.	0.7	24
29	Self-organization of Nanostructures in Inorganic and Organic Semiconductor Systems. <i>Advanced Engineering Materials</i> , 2006, 8, 1057-1065.	3.5	23
30	Noble gas ion beams in materials science for future applications and devices. <i>MRS Bulletin</i> , 2017, 42, 660-666.	3.5	23
31	Synthesis-structure relations for reactive magnetron sputtered V ₂ O ₅ films. <i>Surface and Coatings Technology</i> , 2008, 202, 1551-1555.	4.8	22
32	Pattern formation in para-quaterphenyl film growth on gold substrates. <i>Synthetic Metals</i> , 2004, 146, 383-386.	3.9	21
33	Self-organization of para-sexiphenyl on crystalline substrates. <i>Physica Status Solidi A</i> , 2005, 202, 2376-2385.	1.7	21
34	Microstructure and Phase Behavior of a Quinquethiophene-Based Self-Assembled Monolayer as a Function of Temperature. <i>Journal of Physical Chemistry C</i> , 2011, 115, 22925-22930.	3.1	21
35	The influence of substrate temperature on growth of para-sexiphenyl thin films on Ir{111} supported graphene studied by LEEM. <i>Surface Science</i> , 2012, 606, 475-480.	1.9	21
36	Threshold and efficiency for perforation of 1 nm thick carbon nanomembranes with slow highly charged ions. <i>2D Materials</i> , 2015, 2, 035009.	4.4	21

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37	Time-of-flight secondary ion mass spectrometry in the helium ion microscope. <i>Ultramicroscopy</i> , 2019, 198, 10-17.	1.9	21
38	The influence of substrate temperature on the structure and morphology of sexiphenyl thin films on Au(111). <i>Applied Physics A: Materials Science and Processing</i> , 2007, 87, 103-111.	2.3	20
39	Structural, electrical and magnetic measurements on oxide layers grown on 316L exposed to liquid lead-bismuth eutectic. <i>Journal of Nuclear Materials</i> , 2012, 421, 140-146.	2.7	18
40	Substrate selected polymorphism of epitaxially aligned tetraphenyl-porphyrin thin films. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 262-272.	2.8	17
41	Photoluminescence and Raman Spectroscopy Study on Color Centers of Helium Ion-Implanted 4H-SiC. <i>Nanomanufacturing and Metrology</i> , 2020, 3, 205-217.	3.0	17
42	Structure and morphology of quaterphenyl thin films on Au(111)-The influence of surface contamination by carbon. <i>Journal of Crystal Growth</i> , 2005, 283, 397-403.	1.5	16
43	Freestanding and Supported MoS ₂ Monolayers under Cluster Irradiation: Insights from Molecular Dynamics Simulations. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 37454-37463.	8.0	16
44	Visualization and Chemical Characterization of the Cathode Electrolyte Interphase Using He-Ion Microscopy and <i>In Situ</i> Time-of-Flight Secondary Ion Mass Spectrometry. <i>ACS Applied Energy Materials</i> , 2020, 3, 8822-8832.	5.1	16
45	Synthesis of a Photosensitive Thiocyanate-Functionalized Trialkoxysilane and Its Application in Patterned Surface Modifications. <i>Chemistry of Materials</i> , 2008, 20, 2009-2015.	6.7	15
46	Diffusion and submonolayer growth of para-sexiphenyl on Ir(111) and Ir(111)-supported graphene. <i>IBM Journal of Research and Development</i> , 2011, 55, 15:1-15:7.	3.1	15
47	Subsurface analysis of semiconductor structures with helium ion microscopy. <i>Microelectronics Reliability</i> , 2012, 52, 2104-2109.	1.7	15
48	A high resolution ionoluminescence study of defect creation and interaction. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 165401.	1.8	15
49	Backscattered helium spectroscopy in the helium ion microscope: Principles, resolution and applications. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 344, 44-49.	1.4	15
50	Investigation of ionoluminescence of semiconductor materials using helium ion microscopy. <i>Journal of Luminescence</i> , 2015, 157, 321-326.	3.1	14
51	Site-controlled formation of single Si nanocrystals in a buried SiO ₂ matrix using ion beam mixing. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 2883-2892.	2.8	14
52	Para-sexiphenyl thin films grown by hot wall epitaxy on KCl(001) substrates. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006, 24, 1660-1663.	2.1	13
53	Scanning transmission imaging in the helium ion microscope using a microchannel plate with a delay line detector. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1854-1864.	2.8	13
54	Controlling molecular orientation of OMBE grown 6P thin films on mica(001). <i>Surface Science</i> , 2007, 601, 2584-2587.	1.9	12

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55	Photoreactive molecular layers containing aryl ester units: Preparation, UV patterning and post-exposure modification. <i>Materials Chemistry and Physics</i> , 2010, 119, 287-293.	4.0	12
56	Cobalt induced nanocrystals on Ge(001). <i>Surface Science</i> , 2012, 606, 924-927.	1.9	12
57	Helium Ion Microscopy for Reduced Spin Orbit Torque Switching Currents. <i>Nano Letters</i> , 2020, 20, 7036-7042.	9.1	12
58	Creation and physical aspects of luminescent patterns using helium ion microscopy. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	11
59	Channeling effects in gold nanoclusters under He ion irradiation: insights from molecular dynamics simulations. <i>Nanotechnology</i> , 2020, 31, 035302.	2.6	11
60	Imaging and milling resolution of light ion beams from helium ion microscopy and FIBs driven by liquid metal alloy ion sources. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1742-1749.	2.8	11
61	npSCOPE: A New Multimodal Instrument for In Situ Correlative Analysis of Nanoparticles. <i>Analytical Chemistry</i> , 2021, 93, 14417-14424.	6.5	11
62	Stationary beam full-field transmission helium ion microscopy using sub-50 keV He ⁺ : Projected images and intensity patterns. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1648-1657.	2.8	10
63	Morphology characterization and friction coefficient determination of sputtered V2O5 films. <i>Thin Solid Films</i> , 2010, 519, 1416-1420.	1.8	9
64	Visualization of steps and surface reconstructions in Helium Ion Microscopy with atomic precision. <i>Ultramicroscopy</i> , 2016, 162, 17-24.	1.9	9
65	Morphology modification of Si nanopillars under ion irradiation at elevated temperatures: plastic deformation and controlled thinning to 10 nm. <i>Semiconductor Science and Technology</i> , 2020, 35, 015021.	2.0	9
66	An atomic force microscope integrated with a helium ion microscope for correlative nanoscale characterization. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1272-1279.	2.8	8
67	Superconducting properties of in-plane W-C nanowires grown by He ⁺ focused ion beam induced deposition. <i>Nanotechnology</i> , 2021, 32, 085301.	2.6	8
68	Atomistic Simulations of Defect Production in Monolayer and Bulk Hexagonal Boron Nitride under Low- and High-Fluence Ion Irradiation. <i>Nanomaterials</i> , 2021, 11, 1214.	4.1	7
69	Hierarchy of adhesion forces in patterns of photoreactive surface layers. <i>Journal of Chemical Physics</i> , 2009, 130, 044703.	3.0	6
70	Ehrlich-Schwoebel Barriers and Island Nucleation in Organic Thin-Film Growth. <i>Springer Series in Materials Science</i> , 2013, , 79-106.	0.6	6
71	In-situ Observation of Organic Thin Film Growth on Graphene. <i>Springer Series in Materials Science</i> , 2013, , 107-139.	0.6	6
72	Revealing Inflammatory Indications Induced by Titanium Alloy Wear Debris in Periprosthetic Tissue by Label-Free Correlative High-Resolution Ion, Electron and Optical Microspectroscopy. <i>Materials</i> , 2021, 14, 3048.	2.9	6

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73	HIM of Biological Samples. Nanoscience and Technology, 2016, , 173-185.	1.5	6
74	Characterization of Phospholipid Bilayers on Ti ϵ Al ϵ V and Ti ϵ Al ϵ Nb. Advanced Engineering Materials, 2008, 10, B47.	3.5	5
75	Backscattering Spectrometry in the Helium Ion Microscope: Imaging Elemental Compositions on the nm Scale. Nanoscience and Technology, 2016, , 265-295.	1.5	5
76	Ionoluminescence. Nanoscience and Technology, 2016, , 325-351.	1.5	5
77	Focused Helium and Neon Ion Beam Modification of High-T C Superconductors and Magnetic Materials. Nanoscience and Technology, 2016, , 415-445.	1.5	5
78	Organic thin films grown by hot wall epitaxy on inorganic substrates. Physica Status Solidi (B): Basic Research, 2005, 242, 1877-1882.	1.5	4
79	Structure, Stresses and Stress Relaxation of TiN/Ag Nanocomposite Films. Journal of Nanoscience and Nanotechnology, 2009, 9, 3606-3610.	0.9	4
80	Channeling and Backscatter Imaging. Nanoscience and Technology, 2016, , 205-224.	1.5	4
81	Developing Rapid and Advanced Visualisation of Magnetic Structures Using 2-D Pixelated STEM Detectors. Microscopy and Microanalysis, 2016, 22, 530-531.	0.4	3
82	Controlled and deterministic creation of synthetic antiferromagnetic domains by focused ion beam irradiation. Applied Physics Letters, 2021, 119, .	3.3	3
83	Ion Microscopy. Springer Handbooks, 2019, , 677-714.	0.6	3
84	Modified energetics and growth kinetics on H-terminated GaAs (110). Journal of Chemical Physics, 2013, 139, 164712.	3.0	2
85	Tailoring magnetic nanostructures with neon in the ion microscope. Microscopy and Microanalysis, 2016, 22, 1716-1717.	0.4	2
86	Quantitative nanoscale imaging using transmission He ion channelling contrast: Proof-of-concept and application to study isolated crystalline defects. Ultramicroscopy, 2022, 233, 113439.	1.9	2
87	Nanometer Scale Time of Flight Back Scattering Spectrometry in the Helium Ion Microscope. Microscopy and Microanalysis, 2016, 22, 618-619.	0.4	1
88	Time of Flight Backscatter and Secondary Ion Spectrometry in a Helium Ion Microscope. Microscopy and Microanalysis, 2018, 24, 802-803.	0.4	1
89	Imaging Structure and Magnetisation in New Ways Using 4D STEM. Microscopy and Microanalysis, 2018, 24, 180-181.	0.4	1
90	Nanomagnets: Strain Anisotropy and Magnetic Domains in Embedded Nanomagnets (Small 52/2019). Small, 2019, 15, 1970287.	10.0	1

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91	In-situ Characterization of MoS ₂ Based Field Effect Transistors during Ion Irradiation. Microscopy and Microanalysis, 2020, 26, 294-296.	0.4	1
92	Rubrene On Mica: From The Early Growth Stage To Late Crystallization. Springer Proceedings in Physics, 2009, , 55-60.	0.2	1
93	Self Assembly of Anisotropic Organic Molecules: Diffusion versus Sticking Anisotropy. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
94	In-situ Correlative Analysis of electrical and magnetic properties of Ion-beam treated surfaces by combination of AFM and FIB. Microscopy and Microanalysis, 2021, 27, 1020-1020.	0.4	0
95	Transmission ion microscopy and time-of-flight spectroscopy. Microscopy and Microanalysis, 2021, 27, 1930-1932.	0.4	0
96	Morphology and growth kinetics of organic thin films deposited by hot wall epitaxy. Organic Electronics, 2004, 5, 23-27.	2.6	0