

Juri Barthel

List of Publications by Year in descending order

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91
papers

2,239
citations

293460

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h-index

286692

43
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96
all docs

96
docs citations

96
times ranked

4451
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of tin nanoparticles on Ketjen Black in ionic liquid and water for the hydrogen evolution reaction. <i>Electrochemistry Communications</i> , 2022, 136, 107243.	2.3	4
2	Pd($\text{Fe}_{3}\text{O}_{4}$)-on-ZIFs: nanoparticle deposition on (nano-)MOFs from ionic liquids. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11955-11970.	5.2	4
3	Augmented Therapeutic Potential of Glutaminase Inhibitor CB839 in Glioblastoma Stem Cells Using Gold Nanoparticle Delivery. <i>Pharmaceutics</i> , 2021, 13, 295.	2.0	7
4	Dissolution Kinetics of International Simple Glass and Formation of Secondary Phases at Very High Surface Area to Solution Ratio in Young Cement Water. <i>Materials</i> , 2021, 14, 1254.	1.3	9
5	Nano-scale Complexions Facilitate Li Dendrite-free Operation in LATP Solid-state Electrolyte. <i>Advanced Energy Materials</i> , 2021, 11, 2100707.	10.2	36
6	Atomic resolution HOLZ-STEM imaging of atom position modulation in oxide heterostructures. <i>Ultramicroscopy</i> , 2021, 226, 113296.	0.8	4
7	Automated mapping of the crystallographic sample orientation from diffraction patterns in momentum-resolved STEM. <i>Microscopy and Microanalysis</i> , 2021, 27, 1444-1445.	0.2	1
8	Towards quantitative elemental mapping across interfaces by combining momentum-resolved STEM and EDX. <i>Microscopy and Microanalysis</i> , 2021, 27, 604-607.	0.2	0
9	Role of ionization in imaging and spectroscopy utilizing fast electrons that have excited phonons. <i>Physical Review B</i> , 2021, 104, .	1.1	3
10	Unexpected precipitates in conjunction with layer-by-layer growth in Mn-enriched $\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3$ thin films. <i>Thin Solid Films</i> , 2021, 735, 138862.	0.8	2
11	Direct measurement of electrostatic potentials at the atomic scale: A conceptual comparison between electron holography and scanning transmission electron microscopy. <i>Ultramicroscopy</i> , 2020, 210, 112926.	0.8	15
12	Direct Mapping of Electrostatic Potentials by Momentum-resolved STEM and Electron Holography - A Conceptual Comparison. <i>Microscopy and Microanalysis</i> , 2020, 26, 18-20.	0.2	1
13	Angular dependence of fast-electron scattering from materials. <i>Physical Review B</i> , 2020, 101, .	1.1	16
14	Uptake and retention of molybdenum in cementitious systems. <i>Applied Geochemistry</i> , 2020, 119, 104630.	1.4	3
15	Nickel nanoparticles supported on a covalent triazine framework as electrocatalyst for oxygen evolution reaction and oxygen reduction reactions. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 770-781.	1.5	20
16	Impact of growth kinetics on the interface morphology and magnetization in $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3/\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3$ heterostructures. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 165801.	0.7	1
17	Inelastic Scattering in Electron Backscatter Diffraction and Electron Channeling Contrast Imaging. <i>Microscopy and Microanalysis</i> , 2020, 26, 1147-1157.	0.2	3
18	Tailoring superconducting states in superconductor-ferromagnet hybrids. <i>New Journal of Physics</i> , 2020, 22, 093001.	1.2	7

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19	Tuning the Co/Sr stoichiometry of SrCoO _{2.5} thin films by RHEED assisted MBE growth. Materials Research Express, 2020, 7, 116404.	0.8	4
20	Investigation of the Li-Co antisite exchange in Fe-substituted LiCoPO ₄ cathode for high-voltage lithium ion batteries. Energy Storage Materials, 2019, 22, 138-146.	9.5	15
21	Synthesis of nickel/gallium nanoalloys using a dual-source approach in 1-alkyl-3-methylimidazole ionic liquids. Beilstein Journal of Nanotechnology, 2019, 10, 1754-1767.	1.5	2
22	Bimetallic Co/Al nanoparticles in an ionic liquid: synthesis and application in alkyne hydrogenation. New Journal of Chemistry, 2019, 43, 16583-16594.	1.4	15
23	Lithium/Oxygen Incorporation and Microstructural Evolution during Synthesis of Li-Rich Layered Li _{0.2} Ni _{0.2} Mn _{0.6} O ₂ Oxides. Advanced Energy Materials, 2019, 9, 1803094.	10.2	78
24	Three-dimensional subnanoscale imaging of unit cell doubling due to octahedral tilting and cation modulation in strained perovskite thin films. Physical Review Materials, 2019, 3, .	0.9	12
25	New types of graphene-based membranes with molecular sieve properties for He, H ₂ and H ₂ O. Journal of Membrane Science, 2018, 554, 378-384.	4.1	21
26	Absolute Scale Quantitative Off-Axis Electron Holography at Atomic Resolution. Physical Review Letters, 2018, 120, 156101.	2.9	18
27	Silver, Gold, Palladium, and Platinum N-heterocyclic Carbene Complexes Containing a Selenoether-Functionalized Imidazol-2-ylidene Moiety. Organometallics, 2018, 37, 298-308.	1.1	24
28	Interfacial sharpness and intermixing in a Ge-SiGe multiple quantum well structure. Journal of Applied Physics, 2018, 123, .	1.1	16
29	Thermodynamic properties of selenoether-functionalized ionic liquids and their use for the synthesis of zinc selenide nanoparticles. Dalton Transactions, 2018, 47, 5083-5097.	1.6	14
30	The solid solution-aqueous solution system (Sr,Ba,Ra)SO ₄ +H ₂ O: A combined experimental and theoretical study of phase equilibria at Sr-rich compositions. Chemical Geology, 2018, 497, 1-17.	1.4	23
31	Heterobimetallic triple-decker complexes derived from a dianionic aromatic stannole ligand. Dalton Transactions, 2018, 47, 8892-8896.	1.6	14
32	Synthesis of rare-earth metal and rare-earth metal-fluoride nanoparticles in ionic liquids and propylene carbonate. Beilstein Journal of Nanotechnology, 2018, 9, 1881-1894.	1.5	18
33	Dr. Probe: A software for high-resolution STEM image simulation. Ultramicroscopy, 2018, 193, 1-11.	0.8	255
34	Surface reconstructions and related local properties of a BiFeO ₃ thin film. Scientific Reports, 2017, 7, 39698.	1.6	13
35	Correlating Atom Probe Tomography with Atomic-Resolved Scanning Transmission Electron Microscopy: Example of Segregation at Silicon Grain Boundaries. Microscopy and Microanalysis, 2017, 23, 291-299.	0.2	24
36	Quantitative Agreement between Electron-Optical Phase Images of WSe_2 Simulations Based on Electrostatic Potentials that Include Bonding Effects. Physical Review Letters, 2017, 118, 086101.		

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37	Atomic resolution imaging of YAlO ₃ : Ce in the chromatic and spherical aberration corrected PICO electron microscope. <i>Ultramicroscopy</i> , 2017, 176, 99-104.	0.8	15
38	Soft, Wet-Chemical Synthesis of Metastable Superparamagnetic Hexagonal Close-Packed Nickel Nanoparticles in Different Ionic Liquids. <i>Chemistry - A European Journal</i> , 2017, 23, 6330-6340.	1.7	29
39	Nanosized Conducting Filaments Formed by Atomic-Scale Defects in Redox-Based Resistive Switching Memories. <i>Chemistry of Materials</i> , 2017, 29, 3164-3173.	3.2	70
40	Synthesis of Metal Nanoparticles and Metal Fluoride Nanoparticles from Metal Amidinate Precursors in 1-Butyl-3-Methylimidazolium Ionic Liquids and Propylene Carbonate. <i>ChemistryOpen</i> , 2017, 6, 137-148.	0.9	28
41	On the influence of the electron dose rate on the HRTEM image contrast. <i>Ultramicroscopy</i> , 2017, 176, 37-45.	0.8	5
42	Route to achieving perfect B-site ordering in double perovskite thin films. <i>NPG Asia Materials</i> , 2017, 9, e406-e406.	3.8	36
43	Retention of ²²⁶ Ra by barite: The role of internal porosity. <i>Chemical Geology</i> , 2017, 466, 722-732.	1.4	26
44	Response to the comment by C. Kisielowski, H.A. Calderon, F.R. Chen, S. Helveg, J.R. Jinschek, P. Specht, D. Van Dyck on the article "On the influence of the electron dose-rate on the HRTEM image contrast" by J. Barthel, M. Lentzen, A. Thust, <i>Ultramicroscopy</i> 176 (2017) 37-45. <i>Ultramicroscopy</i> , 2017, 179, 113-115.	0.8	0
45	Quantitative measurement of mean inner potential and specimen thickness from high-resolution off-axis electron holograms of ultra-thin layered WSe ₂ . <i>Ultramicroscopy</i> , 2017, 178, 38-47.	0.8	23
46	Influence of Bulk Polarization and Surface Polarity on Surface Reconstructions and Related Local Properties of Multiferroic BiFeO ₃ Film. <i>Microscopy and Microanalysis</i> , 2017, 23, 1662-1663.	0.2	0
47	Atomic Resolution Imaging of YAlO ₃ :Ce in the Chromatic and Spherical Aberration Corrected PICO Transmission Electron Microscope. <i>Microscopy and Microanalysis</i> , 2017, 23, 422-423.	0.2	0
48	Synthesis of metal-fluoride nanoparticles supported on thermally reduced graphite oxide. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 2474-2483.	1.5	18
49	Atomic resolution elemental mapping using energy-filtered imaging scanning transmission electron microscopy with chromatic aberration correction. <i>Ultramicroscopy</i> , 2017, 181, 173-177.	0.8	16
50	Is HRTEM Image Simulation Correct? A Premise-Free Calibration Approach. <i>Microscopy and Microanalysis</i> , 2016, 22, 1390-1391.	0.2	0
51	Soft wet-chemical synthesis of Ru-Sn nanoparticles from single-source ruthenocene-stannole precursors in an ionic liquid. <i>Journal of Organometallic Chemistry</i> , 2016, 821, 192-196.	0.8	11
52	Maghemite-like regions at the crossing of two antiphase boundaries in doped BiFeO ₃ . <i>Materials Science and Technology</i> , 2016, 32, 242-247.	0.8	5
53	Nano-structural features of barite crystals observed by electron microscopy and atom probe tomography. <i>Chemical Geology</i> , 2016, 424, 51-59.	1.4	33
54	Tungsten Bronze Barium Neodymium Titanate (Ba ₆ Nd ₈₊₂ Ti ₁₈ O ₅₄): An Intrinsic Nanostructured Material and Its Defect Distribution. <i>Inorganic Chemistry</i> , 2016, 55, 3338-3350.	1.9	17

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55	Performance of a direct detection camera for off-axis electron holography. <i>Ultramicroscopy</i> , 2016, 161, 90-97.	0.8	36
56	Complex Nanotwin Substructure of an Asymmetric $\langle \text{mml:mrow} \langle \text{mml:mi mathvariant="normal"} \rangle \text{Î} \langle \text{mml:mi} \mathbf{\hat{x}} \langle \text{mml:mn} \rangle 9 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{Tilt Grain Boundary}$ in a Silicon Polycrystal. <i>Physical Review Letters</i> , 2015, 115, 235502.	2.9	45
57	Atomic Structure of Antiphase Nanodomains in Fe-doped SrTiO ₃ Films. <i>Advanced Functional Materials</i> , 2015, 25, 6369-6373.	7.8	18
58	The mechanical and thermal setup of the GLORIA spectrometer. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 1773-1787.	1.2	5
59	Optimising Electron Holography in the Presence of Partial Coherence and Instrument Instabilities with Conventional and Direct Detection Cameras. <i>Microscopy and Microanalysis</i> , 2015, 21, 1955-1956.	0.2	0
60	Synthesis of ruthenium@graphene nanomaterials in propylene carbonate as re-usable catalysts for the solvent-free hydrogenation of benzene. <i>Nano Structures Nano Objects</i> , 2015, 2, 28-34.	1.9	33
61	Bis((dialkylamino)alkylselenolato)metal complexes as precursors for microwave-assisted synthesis of semiconductor metal selenide nanoparticles of zinc and cadmium in the ionic liquid [BMIm][BF ₄]. <i>Nano Structures Nano Objects</i> , 2015, 1, 24-31.	1.9	21
62	On the origin of differential phase contrast at a locally charged and globally charge-compensated domain boundary in a polar-ordered material. <i>Ultramicroscopy</i> , 2015, 154, 57-63.	0.8	53
63	Hybrid materials of platinum nanoparticles and thiol-functionalized graphene derivatives. <i>Carbon</i> , 2014, 66, 285-294.	5.4	38
64	Synthesis of Cu, Zn and Cu/Zn brass alloy nanoparticles from metal amidinate precursors in ionic liquids or propylene carbonate with relevance to methanol synthesis. <i>Nanoscale</i> , 2014, 6, 3116.	2.8	82
65	Analysis of Dopant Atom Distribution and Quantification of Oxygen Vacancies on Individual Gd-doped CeO ₂ Nanocrystals. <i>Chemistry - A European Journal</i> , 2014, 20, 6288-6293.	1.7	15
66	Influence of the Ba ²⁺ /Sr ²⁺ content and oxygen vacancies on the stability of cubic Ba _x Sr _{1-x} Co _{0.75} Fe _{0.25} O _{3-δ} . <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 1333-1338.	1.3	7
67	Periodic Cation Segregation in Cs _{0.44} [Nb _{2.54} W _{2.46} O ₁₄] Quantified by High-Resolution Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2014, 20, 1453-1462.	0.2	4
68	Determination of the 3D shape of a nanoscale crystal with atomic resolution from a single image. <i>Nature Materials</i> , 2014, 13, 1044-1049.	13.3	84
69	Lifetime of Optical States in Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2014, 20, 922-923.	0.2	0
70	Atomically Resolved 3D Shape Determination of a MgO Crystal Using a Single Aberration Corrected HRTEM Image. <i>Microscopy and Microanalysis</i> , 2014, 20, 940-941.	0.2	0
71	On the optical stability of high-resolution transmission electron microscopes. <i>Ultramicroscopy</i> , 2013, 134, 6-17.	0.8	41
72	Metal carbonyls supported on iron oxide nanoparticles to trigger the CO-gas transmitter release by magnetic heating. <i>Chemical Communications</i> , 2013, 49, 4896.	2.2	114

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73	Atomic-Scale Measurement of Structure and Chemistry of a Single-Unit-Cell Layer of LaAlO_3 Embedded in SrTiO_3 . <i>Microscopy and Microanalysis</i> , 2013, 19, 310-318.	0.2	24
74	From conformal overgrowth to lateral growth of indium arsenide nano structures on silicon substrates by MOVPE. <i>Journal of Crystal Growth</i> , 2013, 370, 141-145.	0.7	5
75	AFM investigations on the influence of CO_2 exposure on $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_3$. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 2897-2907.	1.2	10
76	Assessment of a nanocrystal 3-D morphology by the analysis of single HAADF-HRSTEM images. <i>Nanoscale Research Letters</i> , 2013, 8, 475.	3.1	5
77	Opportunities for Chromatic Aberration Corrected High-Resolution Transmission Electron Microscopy, Lorentz Microscopy and Electron Holography of Magnetic Minerals. <i>Microscopy and Microanalysis</i> , 2012, 18, 1708-1709.	0.2	6
78	Weakly-coordinated stable platinum nanocrystals. <i>CrystEngComm</i> , 2012, 14, 7607.	1.3	32
79	Direct Imaging of Single Au Atoms Within GaAs Nanowires. <i>Nano Letters</i> , 2012, 12, 2352-2356.	4.5	151
80	REPRINT OF: Aberration measurement in HRTEM: Implementation and diagnostic use of numerical procedures for the highly precise recognition of diffractogram patterns. <i>Ultramicroscopy</i> , 2011, 111, 920-939.	0.8	7
81	On the benefit of the negative-spherical-aberration imaging technique for quantitative HRTEM. <i>Ultramicroscopy</i> , 2010, 110, 500-505.	0.8	99
82	Aberration measurement in HRTEM: Implementation and diagnostic use of numerical procedures for the highly precise recognition of diffractogram patterns. <i>Ultramicroscopy</i> , 2010, 111, 27-46.	0.8	43
83	Expansion of interatomic distances in platinum catalyst nanoparticles. <i>Acta Materialia</i> , 2010, 58, 836-845.	3.8	26
84	Structure of $\text{Cs}_{0.5}[\text{Nb}_{2.5}\text{W}_{2.5}\text{O}_{14}]$ analysed by focal-series reconstruction and crystallographic image processing. <i>Acta Materialia</i> , 2010, 58, 3764-3772.	3.8	10
85	StripeSTEM, a technique for the isochronous acquisition of high angle annular dark-field images and monolayer resolved electron energy loss spectra. <i>Ultramicroscopy</i> , 2009, 109, 1447-1452.	0.8	32
86	Progress towards an Absolute-Scale Quantification of HRTEM Images. <i>Microscopy and Microanalysis</i> , 2009, 15, 1466-1467.	0.2	0
87	Quantification of the Information Limit of Transmission Electron Microscopes. <i>Physical Review Letters</i> , 2008, 101, 200801.	2.9	55
88	Progress in Aberration-Corrected High-Resolution Transmission Electron Microscopy of Crystalline Solids. <i>Springer Proceedings in Physics</i> , 2008, , 133-148.	0.1	0
89	Strategies for Aberration Control in Sub-Angstrom HRTEM. <i>Microscopy and Microanalysis</i> , 2005, 11, .	0.2	1
90	FEI Titan G3 50-300 PICO. <i>Journal of Large-scale Research Facilities JLSRF</i> , 0, 1, A34.	0.0	35

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91	FEI Titan 80-300 TEM. Journal of Large-scale Research Facilities JLSRF, 0, 2, A41.	0.0	51