

Roland KrÄger

List of Publications by Year in descending order

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74
papers

2,489
citations

257450

24
h-index

206112

48
g-index

78
all docs

78
docs citations

78
times ranked

3980
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical organization of bone in three dimensions: A twist of twists. <i>Journal of Structural Biology</i> : X, 2022, 6, 100057.	1.3	13
2	Enhancing strength in mineralized collagen. <i>Science</i> , 2022, 376, 137-138.	12.6	5
3	Metal pollution as a potential threat to shell strength and survival in marine bivalves. <i>Science of the Total Environment</i> , 2021, 755, 143019.	8.0	25
4	Trace and major element incorporation into amorphous calcium carbonate (ACC) precipitated from seawater. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 290, 293-311.	3.9	23
5	The role of aspartic acid in reducing coral calcification under ocean acidification conditions. <i>Scientific Reports</i> , 2020, 10, 12797.	3.3	7
6	Nanostructure of mouse otoconia. <i>Journal of Structural Biology</i> , 2020, 210, 107489.	2.8	4
7	The Characteristics and Biological Relevance of Inorganic Amorphous Calcium Carbonate (ACC) Precipitated from Seawater. <i>Crystal Growth and Design</i> , 2019, 19, 4300-4313.	3.0	20
8	Time-Resolved in situ Raman Spectroscopic Observations of a Biomineralization Model System. <i>Microscopy and Microanalysis</i> , 2019, 25, 826-827.	0.4	1
9	Shape-controlled synthesis and <i>in situ</i> characterisation of anisotropic Au nanomaterials using liquid cell transmission electron microscopy. <i>Nanoscale</i> , 2019, 11, 16801-16809.	5.6	9
10	On Biomineralization: Enzymes Switch on Mesocrystal Assembly. <i>ACS Central Science</i> , 2019, 5, 357-364.	11.3	24
11	Medieval women's early involvement in manuscript production suggested by lapis lazuli identification in dental calculus. <i>Science Advances</i> , 2019, 5, eaau7126.	10.3	52
12	The application of micro-Raman for the analysis of ochre artefacts from Mesolithic palaeo-lake Flixton. <i>Journal of Archaeological Science: Reports</i> , 2018, 17, 650-656.	0.5	5
13	Fractal-like hierarchical organization of bone begins at the nanoscale. <i>Science</i> , 2018, 360, .	12.6	390
14	Glycans modify mesenchymal stem cell differentiation to impact the function of resulting osteoblasts. <i>Journal of Cell Science</i> , 2018, 131, .	2.0	16
15	Misleading residues on lithics from Star Carr: Identification with Raman microspectroscopy. <i>Journal of Archaeological Science: Reports</i> , 2018, 19, 430-438.	0.5	9
16	Capacitance-Assisted Sustainable Electrochemical Carbon Dioxide Mineralisation. <i>ChemSusChem</i> , 2018, 11, 137-148.	6.8	15
17	Liquid Cell Transmission Electron Microscopy and the Impact of Confinement on the Precipitation from Supersaturated Solutions. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 21.	2.0	29
18	On demand-triggered crystallization of CaCO ₃ from solute precursor species stabilized by the water-in-oil microemulsion. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13825-13835.	2.8	24

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19	Biom mineralization of a titanium-modified hydroxyapatite semiconductor on conductive wool fibers. <i>Journal of Materials Chemistry B</i> , 2017, 5, 7608-7621.	5.8	21
20	Synergistic Biom mineralization Phenomena Created by a Combinatorial Nacre Protein Model System. <i>Biochemistry</i> , 2016, 55, 2401-2410.	2.5	25
21	In situ mechanical and molecular investigations of collagen/apatite biomimetic composites combining Raman spectroscopy and stress-strain analysis. <i>Acta Biomaterialia</i> , 2016, 46, 278-285.	8.3	29
22	Crystallization of citrate-stabilized amorphous calcium phosphate to nanocrystalline apatite: a surface-mediated transformation. <i>CrystEngComm</i> , 2016, 18, 3170-3173.	2.6	60
23	Semiconductor-Metal Nanofloret Hybrid Structures by Self-Processing Synthesis. <i>Journal of the American Chemical Society</i> , 2016, 138, 4079-4086.	13.7	11
24	A Unique Engraved Shale Pendant from the Site of Star Carr: the oldest Mesolithic art in Britain. <i>Internet Archaeology</i> , 2016, , .	0.4	8
25	Protein sequences bound to mineral surfaces persist into deep time. <i>ELife</i> , 2016, 5, .	6.0	176
26	Control of gas phase nanoparticle shape and its effect on MRI relaxivity. <i>Materials Research Express</i> , 2015, 2, 035002.	1.6	15
27	Ion binding and nucleation. <i>Nature Materials</i> , 2015, 14, 369-370.	27.5	11
28	Testing the effect of bleaching on the bivalve <i>Glycymeris</i> : A case study of amino acid geochronology on key Mediterranean raised beach deposits. <i>Quaternary Geochronology</i> , 2015, 25, 49-65.	1.4	22
29	An Oligomeric C-RING Nacre Protein Influences Prenucleation Events and Organizes Mineral Nanoparticles. <i>Biochemistry</i> , 2014, 53, 7259-7268.	2.5	33
30	Enhanced oxidation of nanoparticles through strain-mediated ionic transport. <i>Nature Materials</i> , 2014, 13, 26-30.	27.5	110
31	Engineering of crystal surfaces and subsurfaces by framework biom mineralization protein phases. <i>CrystEngComm</i> , 2014, 16, 7406-7409.	2.6	19
32	Ultrastructure and Crystallography of Nanoscale Calcite Building Blocks in <i>Rhabdosphaera clavigera</i> Coccolith Spines. <i>Crystal Growth and Design</i> , 2014, 14, 1710-1718.	3.0	17
33	Correlation between Anisotropy and Lattice Distortions in Single Crystal Calcite Nanowires Grown in Confinement. <i>Small</i> , 2014, 10, 2697-2702.	10.0	8
34	In situ electron microscopy studies of calcium carbonate precipitation from aqueous solution with and without organic additives. <i>Journal of Structural Biology</i> , 2013, 183, 270-277.	2.8	23
35	Exchange Bias in Fe@Cr Core-Shell Nanoparticles. <i>Nano Letters</i> , 2013, 13, 3334-3339.	9.1	42
36	Formation and Structure of Calcium Carbonate Thin Films and Nanofibers Precipitated in the Presence of Poly(Allylamine Hydrochloride) and Magnesium Ions. <i>Chemistry of Materials</i> , 2013, 25, 4994-5003.	6.7	39

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37	Preparation of hydrosol suspensions of elemental and core-shell nanoparticles by co-deposition with water vapour from the gas-phase in ultra-high vacuum conditions. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	1.9	33
38	An artificial biomineral formed by incorporation of copolymer micelles in calcite crystals. <i>Nature Materials</i> , 2011, 10, 890-896.	27.5	248
39	Capillarity Creates Single-Crystal Calcite Nanowires from Amorphous Calcium Carbonate. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 12572-12577.	13.8	90
40	Surface Spin Polarization of Fe Nanoclusters. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 1660-1662.	2.1	4
41	Mapping strain gradients in the FIB-structured InGaN/GaN multilayered films with 3D X-ray microbeam. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 528, 52-57.	5.6	4
42	Texture and magnetic properties of exchange bias systems. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	5
43	Polar and nonpolar HVPE GaN substrates: impact of doping on the structural, electrical and optical characteristics. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, S344.	0.8	16
44	Correlation of the orientation of stacked aragonite platelets in nacre and their connection via mineral bridges. <i>Ultramicroscopy</i> , 2009, 109, 230-236.	1.9	48
45	Investigations of voids in the aragonite platelets of nacre. <i>Acta Biomaterialia</i> , 2009, 5, 3038-3044.	8.3	88
46	Microstructure of Aragonite Platelets in Nacre. <i>Microscopy and Microanalysis</i> , 2009, 15, 900-901.	0.4	1
47	Structural investigation of growth and dissolution of nano-islands grown by molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2008, 310, 748-756.	1.5	7
48	Colloidal Synthesis of Pt Nanoparticles: On the Formation and Stability of Nanowires. <i>Langmuir</i> , 2008, 24, 9011-9016.	3.5	31
49	Defect distribution in a-plane GaN on Al ₂ O ₃ . <i>Applied Physics Letters</i> , 2007, 90, 121915.	3.3	35
50	Crack free monolithic nitride vertical-cavity surface-emitting laser structures and pillar microcavities. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 1749-1753.	1.8	2
51	Relaxation in crack-free AlN/GaN superlattices. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 1533-1536.	1.5	7
52	The versatility of hot-filament activated chemical vapor deposition. <i>Thin Solid Films</i> , 2006, 515, 1017-1024.	1.8	65
53	Synthesis and Assembly of Monodisperse High-Coercivity Silica-Capped FePt Nanomagnets of Tunable Size, Composition, and Thermal Stability from Microemulsions. <i>Advanced Materials</i> , 2006, 18, 2569-2573.	21.0	46
54	Structural investigations of spatial correlation of CdSe/ZnSe quantum dot stacks grown by molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2005, 278, 316-319.	1.5	2

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55	Optoelectronic devices on bulk GaN. Journal of Crystal Growth, 2005, 281, 101-106.	1.5	9
56	ZnSe-based laser diodes: New approaches. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1098-1105.	0.8	17
57	Surfactant-mediated epitaxy of Ge on Si(111): Beyond the surface. Applied Physics Letters, 2005, 86, 111910.	3.3	31
58	Determination of the anisotropic optical properties for perfluorinated vanadyl phthalocyanine thin films. Journal of Materials Research, 2004, 19, 2008-2013.	2.6	14
59	Green monolithic InGaIn vertical-cavity surface-emitting laser operating at room temperature. Physica Status Solidi (B): Basic Research, 2004, 241, 731-738.	1.5	32
60	Microstructural study of quantum well degradation in ZnSe-based laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1005-1009.	0.8	3
61	The role of sub-contact layers in the optimization of low-resistivity contacts to p-type GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2537-2540.	0.8	6
62	The role of the growth temperature for the SiN interlayer deposition in GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2039-2042.	0.8	13
63	TEM investigation of defect reduction and etch pit formation in GaN. Materials Research Society Symposia Proceedings, 2003, 798, 484.	0.1	0
64	Magnesium segregation and the formation of pyramidal defects in p-GaN. Applied Physics Letters, 2002, 81, 4748-4750.	3.3	62
65	Optical Gain of CdSe Quantum Dot Stacks. Physica Status Solidi A, 2002, 190, 593-597.	1.7	17
66	Pyramidal Defect Formation in View of Magnesium Segregation. Physica Status Solidi A, 2002, 192, 456-460.	1.7	4
67	Plasma induced microstructural, compositional, and resistivity changes in ultrathin chemical vapor deposited titanium nitride films. Journal of Applied Physics, 2002, 91, 5149-5154.	2.5	46
68	Mg related Defect Formation during MOVPE Growth of GaN based Films studied by Transmission Electron Microscopy. Materials Research Society Symposia Proceedings, 2001, 693, 110.	0.1	0
69	Influence of diffusion barriers on the nucleation and growth of CVD Cu for interconnect applications. Microelectronic Engineering, 2000, 50, 375-381.	2.4	14
70	The role of kinetics in the nucleation and void formation in copper films produced by chemical vapor deposition. Journal of Applied Physics, 2000, 88, 1867-1872.	2.5	15
71	Properties of Copper Films Prepared by Chemical Vapor Deposition for Advanced Metallization of Microelectronic Devices. Journal of the Electrochemical Society, 1999, 146, 3248-3254.	2.9	46
72	Enhanced Diamond Film Growth by Hot-Filament CVD Using Forced Convection. Physica Status Solidi A, 1996, 154, 33-42.	1.7	12

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73	Mass and optical emission spectroscopy of plasmas for diamond synthesis. Pure and Applied Chemistry, 1994, 66, 1195-1205.	1.9	48
74	Investigations concerning the role of hydrogen in the deposition of diamond films. Surface and Coatings Technology, 1993, 59, 310-315.	4.8	3