Ã˜ystein Prytz

List of Publications by Year
in descending order

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70	1,283	430874	395702
papers	citations	18	33
		h-index	g-index

72	72	72	1869
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Radiation-induced defect accumulation and annealing in Si-implanted gallium oxide. Journal of Applied Physics, 2022, 131, .	2.5	17
2	Galvanic Restructuring of Exsolved Nanoparticles for Plasmonic and Electrocatalytic Energy Conversion. Small, 2022, 18, .	10.0	2
3	Surface plasmon investigations by STEM-EELS mapping of Au/Ni nanoparticles on STO. Microscopy and Microanalysis, 2021, 27, 2452-2454.	0.4	0
4	Metallization of ZnSb and contact resistance. Journal of Applied Physics, 2021, 130, 025107.	2.5	0
5	Formation and functionalization of Ge-nanoparticles in ZnO. Nanotechnology, 2021, 32, 505707.	2.6	2
6	Imaging defect complexes in scanning transmission electron microscopy: Impact of depth, structural relaxation, and temperature investigated by simulations. Ultramicroscopy, 2020, 209, 112884.	1.9	4
7	The heterogeneous nucleation of threading dislocations on partial dislocations in III-nitride epilayers. Scientific Reports, 2020, 10, 17371.	3.3	12
8	Strain Modulation of Si Vacancy Emission from SiC Micro- and Nanoparticles. Nano Letters, 2020, 20, 8689-8695.	9.1	11
9	High electron mobility single-crystalline ZnSnN₂ on ZnO (0001) substrates. CrystEngComm, 2020, 22, 6268-6274.	2.6	13
10	A Toroidal Zr₇₀ Oxysulfate Cluster and Its Diverse Packing Structures. Angewandte Chemie - International Edition, 2020, 59, 21397-21402.	13.8	29
11	Single-step approach to sensitized luminescence through bulk-embedded organics in crystalline fluorides. Communications Chemistry, 2020, 3, .	4.5	7
12	A Toroidal Zr 70 Oxysulfate Cluster and Its Diverse Packing Structures. Angewandte Chemie, 2020, 132, 21581-21586.	2.0	6
13	RÃ¼cktitelbild: A Toroidal Zr₇₀ Oxysulfate Cluster and Its Diverse Packing Structures (Angew. Chem. 48/2020). Angewandte Chemie, 2020, 132, 21972-21972.	2.0	0
14	Formation of N₂ bubbles along grain boundaries in (ZnO)_{1â^'x}(GaN)_x: nanoscale STEM-EELS studies. Physical Chemistry Chemical Physics, 2020, 22, 3779-3783.	2.8	6
15	Role of Nitrogen in Defect Evolution in Zinc Oxide: STEMâ€“EELS Nanoscale Investigations. Journal of Physical Chemistry Letters, 2019, 10, 4725-4730.	4.6	12
16	Controlling luminescence and quenching mechanisms in subnanometer multilayer structure of europium titanium oxide thin films. Journal of Luminescence, 2019, 215, 116618.	3.1	8
17	Investigation of the electrostatic potential of a grain boundary in Y-substituted BaZrO3 using inline electron holography. Physical Chemistry Chemical Physics, 2019, 21, 17662-17672.	2.8	10
18	Evidence of defect band mechanism responsible for band gap evolution in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>Zn alloys. Physical Review B, 2019, 100, .	3.2	14

#	ARTICLE	IF	CITATIONS
19	Hydrogen-assisted crack propagation in Î±-iron during elasto-plastic fracture toughness tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 756, 396-404.	5.6	19
20	Effects of Substrate and Postâ€Deposition Annealing on Structural and Optical Properties of (ZnO)_{1â^'x}(GaN)_x Films. Physica Status Solidi (B): Basic Research, 2019, 256, 1800529.	1.5	5
21	ZnCr2O4 Inclusions in ZnO Matrix Investigated by Probe-Corrected STEM-EELS. Materials, 2019, 12, 888.	2.9	4
22	Highly Correlated Hydride Ion Tracer Diffusion in SrTiO_{3â€“x}H_x Oxyhydrides. Journal of the American Chemical Society, 2019, 141, 4653-4659.	13.7	20
23	Structural and optical properties of individual Zn2GeO4 particles embedded in ZnO. Nanotechnology, 2019, 30, 225702.	2.6	3
24	Diffusion of indium in single crystal zinc oxide: a comparison between group III donors. Semiconductor Science and Technology, 2019, 34, 025011.	2.0	4
25	Bandgap bowing in crystalline (ZnO)_{1â^'x}(GaN)_x thin films; influence of composition and structural properties. Semiconductor Science and Technology, 2019, 34, 015001.	2.0	7
26	The temperature-dependency of the optical band gap of ZnO measured by electron energy-loss spectroscopy in a scanning transmission electron microscope. Journal of Applied Physics, 2018, 123, .	2.5	10
27	Band gap maps beyond the delocalization limit: correlation between optical band gaps and plasmon energies at the nanoscale. Scientific Reports, 2018, 8, 848.	3.3	20
28	Automated approaches for band gap mapping in STEM-EELS. Ultramicroscopy, 2018, 184, 39-45.	1.9	22
29	Hydrogen-assisted fatigue crack propagation in a pure BCC iron. Part I: Intergranular crack propagation at relatively low stress intensities. MATEC Web of Conferences, 2018, 165, 03011.	0.2	6
30	Direct observation of conduction band plasmons and the related Burstein-Moss shift in highly doped semiconductors: A STEM-EELS study of Ga-doped ZnO. Physical Review B, 2018, 98, .	3.2	19
31	Hydrogen-assisted fatigue crack propagation in a pure BCC iron. Part II: Accelerated regime manifested by quasi-cleavage fracture at relatively high stress intensity range values. MATEC Web of Conferences, 2018, 165, 03010.	0.2	7
32	Reply to Comment on â€˜Nanoscale mapping of optical band gaps using monochromated electron energy loss spectroscopyâ€™. Nanotechnology, 2018, 29, 318002.	2.6	0
33	Interpretation of hydrogen-assisted fatigue crack propagation in BCC iron based on dislocation structure evolution around the crack wake. Acta Materialia, 2018, 156, 245-253.	7.9	88
34	First complex oxide superconductor by atomic layer deposition. Chemical Communications, 2018, 54, 8253-8256.	4.1	4
35	The role of intergranular fracture on hydrogen-assisted fatigue crack propagation in pure iron at a low stress intensity range. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 316-328.	5.6	53
36	Bandgap and band edge positions in compositionally graded ZnCdO. Journal of Applied Physics, 2018, 124, .	2.5	5

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37	Substoichiometric Silicon Nitride â€“ An Anode Material for Li-ion Batteries Promising High Stability and High Capacity. Scientific Reports, 2018, 8, 8634.	3.3	33
38	Hydrogen-Assisted Fatigue Crack Propagation in a Commercially Pure BCC Iron. , 2018, , .		0
39	Nanoscale mapping of optical band gaps using monochromated electron energy loss spectroscopy. Nanotechnology, 2017, 28, 105703.	2.6	15
40	Long-term Cyclability of Substoichiometric Silicon Nitride Thin Film Anodes for Li-ion Batteries. Scientific Reports, 2017, 7, 13315.	3.3	20
41	Multi-scale observation of hydrogen-induced, localized plastic deformation in fatigue-crack propagation in a pure iron. Scripta Materialia, 2017, 140, 13-17.	5.2	68
42	Ternary Phases (Heusler) in the System Ti-Co-Sn. Metallurgical and Materials Transactions E, 2016, 3, 329-336.	0.5	3
43	Dielectric response of pentagonal defects in multilayer graphene nano-cones. Nanoscale, 2014, 6, 1833-1839.	5.6	6
44	Topologically induced confinement of collective modes in multilayer graphene nanocones measured by momentum-resolved STEM-VEELS. Physical Review B, 2013, 88, .	3.2	12
45	Topologically Induced Confinement of Collective Modes in Polycrystalline Graphene Nano-cones: Measured By Momentum Transfer Dependent STEM-VEELS. Microscopy and Microanalysis, 2013, 19, 1512-1513.	0.4	0
46	Charge-ordered spinel AlV2O4: High-energy-resolution EELS and computational studies. Physical Review B, 2012, 85, .	3.2	9
47	Self-diffusion in Zn4Sb3 from first-principles molecular dynamics. Computational Materials Science, 2011, 50, 2663-2665.	3.0	11
48	Bond Character of Carbon Cones and Discs. Microscopy and Microanalysis, 2011, 17, 1538-1539.	0.4	0
49	Li and OH-Li Complexes in Hydrothermally Grown Single-Crystalline ZnO. Journal of Electronic Materials, 2011, 40, 429-432.	2.2	11
50	Reduction of lattice thermal conductivity from planar faults in the layered Zintl compound SrZnSb2. Journal of Applied Physics, 2011, 109, 043509-043509-5.	2.5	12
51	The Lorenz function: Its properties at optimum thermoelectric figure-of-merit. Applied Physics Letters, 2011, 99, .	3.3	39
52	Electronic structure of thermoelectric Znâ€“Sb. Journal of Physics Condensed Matter, 2011, 23, 265502.	1.8	9
53	Spaceâ€“charge theory applied to the grain boundary impedance of proton conducting BaZr0.9Y0.1O3â^'Î´. Solid State Ionics, 2010, 181, 268-275.	2.7	219
54	The influence of exact exchange corrections in van der Waals layered narrow bandgap black phosphorus. Journal of Physics Condensed Matter, 2010, 22, 015502.	1.8	37

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55	Ab initio band study of thermoelectric Zintl-phase<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrZn</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>YbZn</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2010, 81, .	3.2	32
56	Bond analysis of phosphorus skutterudites: Elongated lanthanum electron buildup in LaFe4P12. Computational Materials Science, 2010, 47, 752-757.	3.0	8
57	Electron energy loss spectroscopy of theL2,3edge of phosphorus skutterudites and electronic structure calculations. Physical Review B, 2009, 80, .	3.2	9
58	Nanoscale inclusions in the phonon glass thermoelectric material Zn₄Sb₃. Philosophical Magazine Letters, 2009, 89, 362-369.	1.2	29
59	Comparison of the electronic structure of a thermoelectric skutterudite before and after adding rattlers: An electron energy loss study. Micron, 2008, 39, 685-689.	2.2	4
60	New filled P-based skutteruditesâ€”promising materials for thermoelectricity?. New Journal of Physics, 2008, 10, 053004.	2.9	8
61	Transition metald-band occupancy in skutterudites studied by electron energy-loss spectroscopy. Physical Review B, 2007, 75, .	3.2	10
62	A quantitative study of valence electron transfer in the skutterudite compound CoP3by combining x-ray induced Auger and photoelectron spectroscopy. Journal of Physics Condensed Matter, 2007, 19, 246216.	1.8	16
63	In situ XPS investigation of Pt(Sn)/Mg(Al)O catalysts during ethane dehydrogenation experiments. Surface Science, 2007, 601, 30-43.	1.9	64
64	Comparison of theoretical and experimental dielectric functions: Electron energy-loss spectroscopy and density-functional calculations on skutterudites. Physical Review B, 2006, 74, .	3.2	28
65	Accurate determination of domain boundary orientation in LaNbO4. Acta Materialia, 2005, 53, 297-302.	7.9	29
66	Mechanistic Insight in the Ethane Dehydrogenation Reaction over Cr/Al2O3 Catalysts. Catalysis Letters, 2005, 103, 143-148.	2.6	66
67	Experimental and theoretical studies of plasma resonance and the electronic structure of binary skutterudites. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	0
68	Accurate determination of orientation relationships between ferroelastic domains: the tetragonal to monoclinic transition in LaNbO4 as an example.. Materials Research Society Symposia Proceedings, 2004, 839, 125.	0.1	0
69	Density-functional band-structure calculations for La-, Y-, and Sc-filledCoP3-based skutterudite structures. Physical Review B, 2004, 70, .	3.2	27
70	Reply to Comment on â€˜Nanoscale mapping of optical band gaps using monochromated electron energy loss spectroscopyâ€™. Nanotechnology, 0, , .	2.6	0