

Claudia S Schnohr

List of Publications by Year in descending order

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59
papers

1,469
citations

304743

22
h-index

330143

37
g-index

60
all docs

60
docs citations

60
times ranked

1612
citing authors

#	ARTICLE	IF	CITATIONS
1	Fine Structure in Swift Heavy Ion Tracks in Amorphous SiO_2 . Physical Review Letters, 2008, 101, 175503.	7.8	242
2	Point defects, compositional fluctuations, and secondary phases in non-stoichiometric kesterites. JPhys Energy, 2020, 2, 012002.	5.3	92
3	Rubidium segregation at random grain boundaries in $\text{Cu}(\text{In,Ga})\text{Se}_2$ absorbers. Nano Energy, 2017, 42, 307-313.	16.0	70
4	Changes in metal nanoparticle shape and size induced by swift heavy-ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 931-935.	1.4	51
5	Compound semiconductor alloys: From atomic-scale structure to bandgap bowing. Applied Physics Reviews, 2015, 2, .	11.3	50
6	Size-dependent characterization of embedded Ge nanocrystals: Structural and thermal properties. Physical Review B, 2008, 78, .	3.2	48
7	Insights into interface and bulk defects in a high efficiency kesterite-based device. Energy and Environmental Science, 2021, 14, 507-523.	30.8	48
8	Energy dependent saturation width of swift heavy ion shaped embedded Au nanoparticles. Applied Physics Letters, 2009, 94, .	3.3	46
9	Measurement of latent tracks in amorphous SiO_2 using small angle X-ray scattering. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2994-2997.	1.4	45
10	Overall Distribution of Rubidium in Highly Efficient $\text{Cu}(\text{In,Ga})\text{Se}_2$ Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 40592-40598.	8.0	44
11	Damage evolution and amorphization in semiconductors under ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2012, 277, 58-69.	1.4	40
12	Anisotropic vibrations in crystalline and amorphous InP. Physical Review B, 2009, 79, .	3.2	39
13	X-Ray Absorption Spectroscopy of Semiconductors. Springer Series in Optical Sciences, 2015, .	0.7	37
14	Atomic-scale structure and band-gap bowing in $\text{Cu}(\text{In,Ga})\text{Se}_2$. Physical Review B, 2012, 85, .	3.2	36
15	fcc-hcp phase transformation in Co nanoparticles induced by swift heavy-ion irradiation. Physical Review B, 2009, 80, .	3.2	35
16	Structural modification of swift heavy ion irradiated amorphous Ge layers. Journal Physics D: Applied Physics, 2009, 42, 115402.	2.8	32
17	Influence of electronic energy deposition on the structural modification of swift heavy-ion-irradiated amorphous germanium layers. Physical Review B, 2011, 83, .	3.2	28
18	Swift-heavy-ion-induced damage formation in III-V binary and ternary semiconductors. Physical Review B, 2010, 81, .	3.2	27

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19	Nano-porosity in GaSb induced by swift heavy ion irradiation. Applied Physics Letters, 2014, 104, .	3.3	27
20	Void formation in amorphous germanium due to high electronic energy deposition. Physical Review B, 2011, 83, .	3.2	26
21	Revealing the origin of the beneficial effect of cesium in highly efficient Cu(In,Ga)Se ₂ solar cells. Nano Energy, 2020, 71, 104622.	16.0	25
22	Comparison of the atomic structure of InP amorphized by electronic or nuclear ion energy-loss processes. Physical Review B, 2008, 77, .	3.2	23
23	Atomic-scale structure of $\text{Ga}_{1-x}\text{In}_x\text{Se}_2$ measured with extended x-ray absorption fine structure spectroscopy. Physical Review B, 2008, 78, .		
24	Transparent CdTe solar cells with a ZnO:Al back contact. Thin Solid Films, 2013, 548, 627-631.	1.8	22
25	Improved Ga grading of sequentially produced Cu(In,Ga)Se ₂ solar cells studied by high resolution X-ray fluorescence. Applied Physics Letters, 2015, 106, .	3.3	20
26	Temperature-dependent EXAFS analysis of embedded Pt nanocrystals. Journal of Physics Condensed Matter, 2009, 21, 155302.	1.8	19
27	Discrepancy between integral and local composition in off-stoichiometric Cu ₂ ZnSnSe ₄ kesterites: A pitfall for classification. Applied Physics Letters, 2017, 110, .	3.3	19
28	Ion irradiation effects on metallic nanocrystals. Radiation Effects and Defects in Solids, 2007, 162, 501-513.	1.2	17
29	The influence of annealing conditions on the growth and structure of embedded Pt nanocrystals. Journal of Applied Physics, 2009, 105, 044303.	2.5	17
30	Ion-beam-induced damage formation in CdTe. Journal of Applied Physics, 2011, 109, 113531.	2.5	17
31	Structural properties of embedded Ge nanoparticles modified by swift heavy-ion irradiation. Physical Review B, 2012, 85, .	3.2	17
32	Atomic-scale structure, cation distribution, and bandgap bowing in Cu(In,Ga)S ₂ and Cu(In,Ga)Se ₂ . Applied Physics Letters, 2013, 103, .	3.3	16
33	Ion-beam induced effects at 15K in $\hat{\Gamma}$ -Al ₂ O ₃ of different orientations. Journal of Applied Physics, 2006, 99, 123511.	2.5	15
34	Short-range versus long-range structure in Cu(In,Ga)Se ₂ , Cu(In,Ga) ₃ Se ₅ , and Cu(In,Ga) ₅ Se ₈ . Journal of Alloys and Compounds, 2019, 774, 803-812.	5.5	15
35	Lift-off protocols for thin films for use in EXAFS experiments. Journal of Synchrotron Radiation, 2013, 20, 426-432.	2.4	12
36	Local versus global electronic properties of chalcopyrite alloys: X-ray absorption spectroscopy and ab initio calculations. Journal of Applied Physics, 2014, 116, 093703.	2.5	12

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37	Rapid ion-implantation-induced amorphization of $\text{In}_{1-x}\text{Ga}_x\text{As}$ to InAs and GaAs . <i>Physical Review B</i> , 2009, 79, .	3.2	11
38	Reversible correlation between subnanoscale structure and Cu content in co-evaporated $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films. <i>Acta Materialia</i> , 2018, 153, 8-14.	7.9	11
39	On the Germanium Incorporation in $\text{Cu}_2\text{ZnSnSe}_4$ Kesterite Solar Cells Boosting Their Efficiency. <i>ACS Applied Energy Materials</i> , 2020, 3, 558-564.	5.1	11
40	Structural and electronic contributions to the bandgap bowing of $(\text{In,Ga})\text{P}$ alloys. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 325802.	1.8	9
41	Composition-dependent nanostructure of $\text{Cu}(\text{In,Ga})\text{Se}_2$ powders and thin films. <i>Thin Solid Films</i> , 2015, 582, 356-360.	1.8	8
42	In-Operando Nanoscale X-ray Analysis Revealing the Local Electrical Properties of Rubidium-Enriched Grain Boundaries in $\text{Cu}(\text{In,Ga})\text{Se}_2$ Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 57117-57123.	8.0	7
43	Swift heavy ion irradiation of Pt nanocrystals: I. shape transformation and dissolution. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 155401.	2.8	5
44	Ion-beam-induced damage formation in CdTe at a temperature of 15K. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 272, 338-341.	1.4	5
45	EXAFS study of the amorphous phase of InP after swift heavy ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 257, 293-296.	1.4	4
46	Temperature-Dependent Second Shell Interference in the First Shell Analysis of Crystalline InP X-ray Absorption Spectroscopy Data. <i>Journal of the Physical Society of Japan</i> , 2014, 83, 094602.	1.6	4
47	Bond-strength inversion in $(\text{In,Ga})\text{As}$ semiconductor alloys. <i>Physical Review B</i> , 2018, 97, .	3.2	4
48	Atomic Scale Structure of $(\text{Ag,Cu})_2\text{ZnSnSe}_4$ and $\text{Cu}_2\text{Zn}(\text{Sn,Ge})\text{Se}_4$ Kesterite Thin Films. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	4
49	Binary and Ternary Random Alloys. <i>Springer Series in Optical Sciences</i> , 2015, , 29-47.	0.7	4
50	Ion-beam induced effects in Al_2O_3 at 15K. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 250, 85-89.	1.4	3
51	Swift heavy ion irradiation of Pt nanocrystals: II. Structural changes and H desorption. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 155402.	2.8	3
52	Bond-stretching force constants and vibrational frequencies in ternary zinc-blende alloys: A systematic comparison of $(\text{In,Ga})\text{P}$, $(\text{In,Ga})\text{As}$ and $\text{Zn}(\text{Se,Te})$. <i>Europhysics Letters</i> , 2019, 126, 36002.	2.0	3
53	Interplay of Performance-Limiting Nanoscale Features in $\text{Cu}_2\text{ZnSn}(\text{S,Se})_4$ Solar Cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000456.	1.8	3
54	Atomic scale structure and its impact on the band gap energy for $\text{Cu}_2\text{Zn}(\text{Sn,Ge})\text{Se}_4$ kesterite alloys. <i>JPhys Energy</i> , 2020, 2, 035004.	5.3	3

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55	Ion-implantation-induced amorphization of $\text{In}_x\text{Ga}_{1-x}\text{P}$ alloys as functions of stoichiometry and temperature. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	2
56	Room temperature annealing of low-temperature ion implanted sapphire. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 257, 492-495.	1.4	0
57	Temperature-dependent EXAFS measurements of InP . , 2009, , .		0
58	Swift Heavy Ion Irradiation of Cobalt Nanoparticles. , 2009, , .		0
59	Swift Heavy Ion Irradiation of Crystalline Semiconductors. <i>Springer Series in Surface Sciences</i> , 2016, , 365-402.	0.3	0