

Chris Sturm

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

2,135
citations

236925

25
h-index

233421

45
g-index

82
all docs

82
docs citations

82
times ranked

2604
citing authors

#	ARTICLE	IF	CITATIONS
1	Whispering gallery mode lasing in zinc oxide microwires. Applied Physics Letters, 2008, 92, 241102.	3.3	192
2	Raman tensor elements of $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Scientific Reports, 2016, 6, 35964.	3.3	162
3	A Practical, Self-Catalytic, Atomic Layer Deposition of Silicon Dioxide. Angewandte Chemie - International Edition, 2008, 47, 6177-6179.	13.8	127
4	All-optical phase modulation in a cavity-polariton Mach-Zehnder interferometer. Nature Communications, 2014, 5, 3278.	12.8	123
5	Realization of a Double-Barrier Resonant Tunneling Diode for Cavity Polaritons. Physical Review Letters, 2013, 110, 236601.	7.8	118
6	Tin-assisted heteroepitaxial PLD-growth of $\hat{\Gamma}^2$ -Ga ₂ O ₃ thin films with high crystalline quality. APL Materials, 2019, 7, .	5.1	98
7	Metal-insulator transition in Co-doped ZnO: Magnetotransport properties. Physical Review B, 2006, 73, .	3.2	83
8	Dielectric tensor of monoclinic Ga ₂ O ₃ single crystals in the spectral range 0.5–8.5 eV. APL Materials, 2015, 3, 106106.	5.1	81
9	Growth of $\hat{\Gamma}^2$ -Ga ₂ O ₃ on Al ₂ O ₃ and GaAs using metal-organic vapor-phase epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 243-249.	1.8	77
10	Whispering gallery modes in zinc oxide micro- and nanowires. Physica Status Solidi (B): Basic Research, 2010, 247, 1282-1293.	1.5	77
11	Raman Tensor Formalism for Optically Anisotropic Crystals. Physical Review Letters, 2016, 116, 127401.	7.8	61
12	Ballistic propagation of exciton-polariton condensates in a ZnO-based microcavity. New Journal of Physics, 2012, 14, 013037.	2.9	54
13	Dipole analysis of the dielectric function of color dispersive materials: Application to monoclinic Ga_2O_3 . Physical Review B, 2016, 94, .	5.1	54
14	Luminescence and surface properties of Mg _x Zn _{1-x} O thin films grown by pulsed laser deposition. Journal of Applied Physics, 2007, 101, 083521.	2.5	49
15	Magnetoresistance and anomalous Hall effect in magnetic ZnO films. Journal of Applied Physics, 2007, 101, 063918.	2.5	43
16	Observation of strong exciton-photon coupling at temperatures up to 410 K. New Journal of Physics, 2009, 11, 073044.	2.9	42
17	Epitaxial stabilization of single phase $\hat{\Gamma}^2$ -(In _x Ga _{1-x}) ₂ O ₃ thin films up to $x = 0.28$ on c-sapphire and $\hat{\Gamma}^2$ -Ga ₂ O ₃ (001) templates by tin-assisted VCCS-PLD. APL Materials, 2019, 7, .	5.1	38
18	Voigt Exceptional Points in an Anisotropic ZnO-Based Planar Microcavity: Square-Root Topology, Polarization Vortices, and Circularity. Physical Review Letters, 2019, 123, 227401.	7.8	35

#	ARTICLE	IF	CITATIONS
19	Structural, optical, and electrical properties of orthorhombic $\text{In}_{1-x}\text{Ga}_x\text{ZnO}_3$ thin films. APL Materials, 2019, 7, .	5.1	34
20	One- and two-dimensional cavity modes in ZnO microwires. New Journal of Physics, 2011, 13, 103021.	2.9	31
21	Nonequilibrium polariton condensate in a magnetic field. Physical Review B, 2015, 91, .	3.2	29
22	Carrier density driven lasing dynamics in ZnO nanowires. Nanotechnology, 2016, 27, 225702.	2.6	28
23	Solubility limit and material properties of a $\text{In}_{1-x}\text{Al}_x\text{Ga}_x\text{ZnO}_3$ thin film with a lateral cation gradient on (00.1)Al ₂ O ₃ by tin-assisted PLD. APL Materials, 2020, 8, 021103.	5.1	26
24	Tubular magnetic nanostructures based on glancing angle deposited templates and atomic layer deposition. Physica Status Solidi (B): Basic Research, 2010, 247, 1365-1371.	1.5	25
25	Maxwell consideration of polaritonic quasi-particle Hamiltonians in multi-level systems. Applied Physics Letters, 2015, 107, .	3.3	25
26	Optically anisotropic media: New approaches to the dielectric function, singular axes, microcavity modes and Raman scattering intensities. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600295.	2.4	24
27	Control of phase formation of $(\text{Al}_x\text{Ga}_{1-x})\text{ZnO}_3$ thin films on c-plane Al ₂ O ₃ . Journal Physics D: Applied Physics, 2020, 53, 485105.	2.8	24
28	Exceptional points in anisotropic planar microcavities. Physical Review A, 2017, 95, .	2.5	22
29	Determination of the refractive index of single crystal bulk samples and micro-structures. Thin Solid Films, 2011, 519, 2777-2781.	1.8	20
30	Ultrafast dynamics of the dielectric functions of ZnO and BaTiO ₃ thin films after intense femtosecond laser excitation. Journal of Applied Physics, 2014, 115, 053508.	2.5	18
31	Singular optical axes in biaxial crystals and analysis of their spectral dispersion effects in In_2O_3 . Physical Review A, 2016, 93, .	2.5	18
32	Two-dimensional confined photonic wire resonators – strong light–matter coupling. Physica Status Solidi (B): Basic Research, 2010, 247, 1351-1364.	1.5	17
33	Design of UV-crosslinked polymeric thin layers for encapsulation of piezoelectric ZnO nanowires for pressure-based fingerprint sensors. Journal of Materials Chemistry C, 2018, 6, 605-613.	5.5	16
34	Temperature dependence of the dielectric function of thin film CuI in the spectral range (0.6–8.3) eV. Applied Physics Letters, 2018, 113, 172102.	3.3	16
35	Temperature dependence of the dielectric tensor of monoclinic Ga ₂ O ₃ single crystals in the spectral range 1.0–8.5 eV. Applied Physics Letters, 2017, 111, .	3.3	15
36	Exciton–phonon coupling and exciton thermalization in $\text{Mg}_x\text{Zn}_{1-x}\text{O}$ thin films. Solid State Communications, 2008, 148, 570-572.	1.9	14

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37	Identification of a donor-related recombination channel in ZnO thin films. <i>Physical Review B</i> , 2010, 81, .	3.2	14
38	Cavity-photon dispersion in one-dimensional confined microresonators with an optically anisotropic cavity material. <i>Physical Review B</i> , 2011, 83, .	3.2	14
39	Parametric relaxation in whispering gallery mode exciton-polariton condensates. <i>Physical Review B</i> , 2015, 91, .	3.2	14
40	Spin polarization in Zn _{0.95} Co _{0.05} O:(Al,Cu) thin films. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 4920-4924.	2.8	11
41	Cavity polariton condensate in a disordered environment. <i>Physical Review B</i> , 2016, 93, .	3.2	11
42	Strong exciton-photon coupling in ZnO based resonators. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 1726.	1.3	10
43	Optical properties of BaTiO ₃ /ZnO heterostructures under the effect of an applied bias. <i>Thin Solid Films</i> , 2011, 519, 2933-2935.	1.8	10
44	Exciton-polaritons in a ZnO-based microcavity: polarization dependence and nonlinear occupation. <i>New Journal of Physics</i> , 2011, 13, 033014.	2.9	10
45	Low-Temperature PLD-Growth of Ultrathin ZnO Nanowires by Using Zn x Al ¹⁺ x O and Zn x Ga ¹⁺ x O Seed Layers. <i>Nanoscale Research Letters</i> , 2017, 12, 134.	5.7	10
46	Piezo-force and Vibration Analysis of ZnO Nanowire Arrays for Sensor Application. <i>Procedia Engineering</i> , 2016, 168, 1192-1195.	1.2	9
47	Observation of strong light-matter coupling by spectroscopic ellipsometry. <i>Superlattices and Microstructures</i> , 2010, 47, 19-23.	3.1	8
48	Control of magnetic properties in spinel ZnFe ₂ O ₄ thin films through intrinsic defect manipulation. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	8
49	Applicability of the constitutive equations for the determination of the material properties of optically active materials. <i>Optics Letters</i> , 2019, 44, 1351.	3.3	8
50	Dynamics of exciton-polariton emission in CuI. <i>APL Materials</i> , 2021, 9, .	5.1	8
51	Synthesis and physical properties of cylindrite micro tubes and lamellae. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1335-1350.	1.5	7
52	Optical characterization of zinc oxide microlasers and microwire core-shell heterostructures. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 1780.	1.3	6
53	Epitaxial growth of rhombohedral $\hat{\Gamma}^2$ - and cubic $\hat{\Gamma}^3$ -CuI. <i>Journal of Crystal Growth</i> , 2021, 570, 126218.	1.5	6
54	Dielectric tensor, optical activity, and singular optic axes of KTP in the spectral range 0.5-8.4 eV. <i>Physical Review Materials</i> , 2020, 4, .	2.4	6

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55	Photoinduced Heating of Graphitized Nanodiamonds Monitored by the Raman Diamond Peak. Journal of Physical Chemistry C, 2018, 122, 25685-25691.	3.1	5
56	Dielectric function decomposition by dipole interaction distribution: application to triclinic $K_2Cr_2O_7$. New Journal of Physics, 2020, 22, 073041.	2.9	4
57	Optical Properties of Cylindrite. AIP Conference Proceedings, 2007, , .	0.4	3
58	UV-crosslinked Polymeric Materials for Encapsulation of ZnO Nanowires in Piezoelectric Fingerprint Sensors. Procedia Engineering, 2016, 168, 1135-1139.	1.2	3
59	Growth Kinetics of Ultrathin ZnO Nanowires Grown by Pulsed Laser Deposition. Procedia Engineering, 2016, 168, 1156-1159.	1.2	3
60	Constitutive Relations for Optically Active Anisotropic Media: A Review. Advanced Photonics Research, 2021, 2, 2100160.	3.6	3
61	Strong coupling of Bloch surface waves and excitons in ZnO up to 430 K. New Journal of Physics, 2021, 23, 093031.	2.9	3
62	Investigation of the free charge carrier properties at the ZnO-sapphire interface in α -plane ZnO films studied by generalized infrared ellipsometry. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1350-1353.	0.8	2
63	ZnO nano-pillar Resonators with Coaxial Bragg-Reflectors. Materials Research Society Symposia Proceedings, 2009, 1178, 13.	0.1	2
64	Charge carrier dynamics of ZnO and ZnO-BaTiO ₃ thin films. Journal of Physics: Conference Series, 2010, 210, 012048.	0.4	2
65	Selective growth of tilted ZnO nanoneedles and nanowires by PLD on patterned sapphire substrates. AIP Advances, 2016, 6, 095013.	1.3	2
66	Contacting ZnO Individual Crystal Facets by Direct Write Lithography. ACS Applied Materials & Interfaces, 2016, 8, 23891-23898.	8.0	2
67	Non-linear optical deformation potentials in uniaxially strained ZnO microwires. Applied Physics Letters, 2017, 110, .	3.3	2
68	Influence of the excitation conditions on the emission behavior of carbon nanodot-based planar microcavities. Physical Review Research, 2020, 2, .	3.6	2
69	Polarization behavior of the exciton-polariton emission of ZnO-based microresonators. Materials Research Society Symposia Proceedings, 2009, 1208, 1.	0.1	1
70	Exciton-polaritons in ZnO microcavity resonators. AIP Conference Proceedings, 2010, , .	0.4	1
71	Exceptional points in anisotropic photonic structures: from non-Hermitian physics to possible device applications. Proceedings of SPIE, 2017, , .	0.8	1
72	Angular position of singular optic axes for arbitrary dielectric tensors. Physical Review A, 2021, 103, .	2.5	1

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73	The magnetotransport properties of Co-doped ZnO films. AIP Conference Proceedings, 2007, , .	0.4	0
74	Valence Band Structure of ZnO and Mg _x Zn _{1-x} O. Materials Research Society Symposia Proceedings, 2007, 1035, 1.	0.1	0
75	Occupation behaviour of the lower exciton-polariton branch in ZnO-based microresonators. , 2011, , .		0
76	Structural properties of BaTiO ₃ /ZnO heterostructures and interfaces. AIP Conference Proceedings, 2011, , .	0.4	0
77	Coherent Polariton States in ZnO Nano- and Microstructures. , 2018, , .		0
78	Exceptional Points in the Dispersion of Optically Anisotropic Planar Microcavities. , 2018, , .		0
79	Raman tensor determination of transparent uniaxial crystals and their thin films—α-plane GaN as exemplary case. Applied Physics Letters, 2021, 119, 121109.	3.3	0