

Sylvia Matzen

List of Publications by Year in descending order

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40
papers

1,367
citations

394421

19
h-index

345221

36
g-index

40
all docs

40
docs citations

40
times ranked

2229
citing authors

#	ARTICLE	IF	CITATIONS
1	A rhombohedral ferroelectric phase in epitaxially strained Hf _{0.5} Zr _{0.5} O ₂ thin films. Nature Materials, 2018, 17, 1095-1100.	27.5	324
2	Reversible oxygen migration and phase transitions in hafnia-based ferroelectric devices. Science, 2021, 372, 630-635.	12.6	138
3	Universal Fabrication of 2D Electron Systems in Functional Oxides. Advanced Materials, 2016, 28, 1976-1980.	21.0	129
4	Super switching and control of in-plane ferroelectric nanodomains in strained thin films. Nature Communications, 2014, 5, 4415.	12.8	87
5	Ferroelectric Domain Structures in Low-Strain BaTiO ₃ . Advanced Electronic Materials, 2016, 2, 1500214.	5.1	54
6	Magnetism of CoFe ₂ O ₄ ultrathin films on MgAl ₂ O ₄ driven by epitaxial strain. Applied Physics Letters, 2013, 103, .	3.3	50
7	Thickness scaling of ferroelastic domains in PbTiO ₃ films on DyScO ₃ . Applied Physics Letters, 2013, 103, .	3.3	46
8	Strain-induced magnetic anisotropy in epitaxial thin films of the spinel CoCr_2O_4 . Physical Review B, 2015, 92, .	3.2	46
9	Magnetic Tunnel Junctions Based on Ferroelectric Epitaxial growth and ferromagnetic behavior of MnFe ₂ O ₄ Tunnel Barriers.	3.2	44
10	Nanomagnetism of cobalt ferrite-based spin filters probed by spin-polarized tunneling. Applied Physics Letters, 2012, 101, 042409.	3.3	39
11	Structure, magnetic ordering, and spin filtering efficiency of NiFe ₂ O ₄ (111) ultrathin films. Applied Physics Letters, 2014, 104, .	3.3	37
12	Restoration of bulk magnetic properties by strain engineering in epitaxial CoFe ₂ O ₄ (001) ultrathin films. Applied Physics Letters, 2011, 99, .	3.3	35
13	Temperature-independent giant dielectric response in transitional BaTiO ₃ thin films. Applied Physics Reviews, 2020, 7, 011402.	11.3	35
14	Magneto-ionic control of spin polarization in multiferroic tunnel junctions. Npj Quantum Materials, 2019, 4, .	5.2	34
15	Artificial antiphase boundary at the interface of ferrimagnetic spinel bilayers. Physical Review B, 2009, 79, .	3.2	32
16	Tuning Ultrafast Photoinduced Strain in Ferroelectric-Based Devices. Advanced Electronic Materials, 2019, 5, 1800709.	5.1	26
17	Domains and domain walls in multiferroics. Comptes Rendus Physique, 2015, 16, 227-240.	0.9	22

#	ARTICLE	IF	CITATIONS
19	Direct evidence of spin filtering across MnFe ₂ O ₄ tunnel barrier by Meservey-Tedrow experiment. <i>Physical Review B</i> , 2013, 87, .	3.2	19
20	Third-order nonlinear optical susceptibility of crystalline oxide yttria-stabilized zirconia. <i>Photonics Research</i> , 2020, 8, 110.	7.0	19
21	Organic-inorganic magnetic tunnel heterojunctions based on dithiapyranylidene ultrathin films grown on Fe ₃ O ₄ (111). <i>Applied Physics Letters</i> , 2010, 97, 253303.	3.3	12
22	High-quality crystalline yttria-stabilized-zirconia thin layer for photonic applications. <i>Physical Review Materials</i> , 2018, 2, .	2.4	12
23	Structural and magnetic properties of [001] CoC ₂ O ₄ thin films. <i>Physical Review B</i> , 2017, 96, .	3.2	9
24	Ultrafast light-induced shear strain probed by time-resolved x-ray diffraction: Multiferroic BiFeO ₃ as a case study. <i>Physical Review B</i> , 2020, 102, .	3.2	9
25	Cantilever magnetoelectric PZT/TbFeCo resonators for magnetic sensing applications. <i>APL Materials</i> , 2021, 9, .	5.1	8
26	Improving ion irradiated high T _c Josephson junctions by annealing: The role of vacancy-interstitial annihilation. <i>Applied Physics Letters</i> , 2007, 91, 142506.	3.3	7
27	Annealing of ion irradiated high TC Josephson junctions studied by numerical simulations. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	7
28	Erbium-Doped Yttria-Stabilized Zirconia Thin Layers for Photonic Applications. <i>IEEE Journal of Quantum Electronics</i> , 2020, 56, 1-7.	1.9	7
29	Tuning the growth and strain relaxation of ferroelectric BaTiO ₃ thin films on SrRuO ₃ electrode: influence on electrical properties. <i>EPJ Applied Physics</i> , 2017, 80, 30303.	0.7	6
30	Growth and magnetic behavior in hybrid organic-inorganic Ferrite/Alq ₃ /Co heterostructures. <i>Journal of Materials Chemistry</i> , 2009, 19, 6973.	6.7	5
31	Domain fluctuations in a ferroelectric low-strain BaTiO ₃ thin film. <i>Physical Review Materials</i> , 2020, 4, .	2.4	5
32	Quantitative investigation of polarization-dependent photocurrent in ferroelectric thin films. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 104003.	1.8	5
33	X-ray diffraction imaging of metal-oxide epitaxial tunnel junctions made by optical lithography: use of focused and unfocused X-ray beams. <i>Journal of Synchrotron Radiation</i> , 2013, 20, 355-365.	2.4	4
34	Conduction mechanism and switchable photovoltaic effect in (111) oriented BiFe _{0.95} Mn _{0.05} O ₃ thin film. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 275701.	1.8	4
35	Heterogeneous Integration of Doped Crystalline Zirconium Oxide for Photonic Applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022, 28, 1-13.	2.9	3
36	Erbium-doped yttria-stabilised zirconia thin films grown by pulsed laser deposition for photonic applications. <i>Thin Solid Films</i> , 2020, 693, 137706.	1.8	2

#	ARTICLE	IF	CITATIONS
37	Towards optical amplification in complex functional oxides: exploring optical gain in erbium-doped yttria-stabilized zirconia waveguides. , 2019, , .		1
38	Annealing effect on the reproducibility of Josephson Junctions made by ion irradiation. Journal of Physics: Conference Series, 2008, 97, 012073.	0.4	0
39	Strain induced by functional oxides for silicon photonics applications. Proceedings of SPIE, 2017, , .	0.8	0
40	Optical gain evaluation on rare-earth doped Yttria-stabilized zirconia for hybrid integration on silicon photonics platforms. , 2019, , .		0