

Steven J May

List of Publications by Year in descending order

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77
papers

9,134
citations

101543

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77
times ranked

10419
citing authors

#	ARTICLE	IF	CITATIONS
1	Strain-Induced Anion-Site Occupancy in Perovskite Oxyfluoride Films. <i>Chemistry of Materials</i> , 2021, 33, 1811-1820.	6.7	10
2	Distinguishing electronic contributions of surface and sub-surface transition metal atoms in Ti-based MXenes. <i>2D Materials</i> , 2020, 7, 025015.	4.4	31
3	Evidence of a magnetic transition in atomically thin Cr ₂ TiC ₂ T _x MXene. <i>Nanoscale Horizons</i> , 2020, 5, 1557-1565.	8.0	51
4	Synthesis and Characterization of SrF _x Mn _{1-x} (O,F)3 $\hat{\Gamma}$ Oxide ($\hat{\Gamma}$ = 0 and 0.5) and Oxyfluoride Perovskite Films. <i>Inorganic Chemistry</i> , 2020, 59, 9990-9997.	4.0	6
5	Tailoring Electronic and Optical Properties of MXenes through Forming Solid Solutions. <i>Journal of the American Chemical Society</i> , 2020, 142, 19110-19118.	13.7	198
6	Quantitative Aberration-Corrected STEM for Studies of Oxide Superlattices and Topological Defects in Layered Ferroelectrics. <i>Microscopy and Microanalysis</i> , 2020, 26, 1194-1195.	0.4	0
7	Evidence for Interfacial Octahedral Coupling as a Route to Enhance Magnetoresistance in Perovskite Oxide Superlattices. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901576.	3.7	8
8	Role of fluoride and fluorocarbons in enhanced stability and performance of halide perovskites for photovoltaics. <i>Physical Review Materials</i> , 2020, 4, .	2.4	20
9	Deliberate Deficiencies: Expanding Electronic Function through Non-stoichiometry. <i>Matter</i> , 2019, 1, 33-35.	10.0	8
10	Depth-Resolved Modulation of Metal-Oxygen Hybridization and Orbital Polarization across Correlated Oxide Interfaces. <i>Advanced Materials</i> , 2019, 31, e1902364.	21.0	9
11	Control of MXenes'™ electronic properties through termination and intercalation. <i>Nature Communications</i> , 2019, 10, 522.	12.8	721
12	Physical properties of epitaxial SrMnO _{2.5} $\hat{\Gamma}$ / F ₃ $\hat{\Gamma}$ oxyfluoride films. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 365602.	1.8	5
13	Scalable Synthesis of Ultrathin Mn ₃ N ₂ Exhibiting Room-Temperature Antiferromagnetism. <i>Advanced Functional Materials</i> , 2019, 29, 1809001.	14.9	67
14	Effects of Synthesis and Processing on Optoelectronic Properties of Titanium Carbonitride MXene. <i>Chemistry of Materials</i> , 2019, 31, 2941-2951.	6.7	160
15	Surface Termination Dependent Work Function and Electronic Properties of Ti ₃ C ₂ T _x MXene. <i>Chemistry of Materials</i> , 2019, 31, 6590-6597.	6.7	359
16	Reconfigurable lateral anionic heterostructures in oxide thin films via lithographically defined topochemistry. <i>Physical Review Materials</i> , 2019, 3, .	2.4	7
17	Itinerancy-dependent noncollinear spin textures in SrFeO ₃ and CaFeO ₃ . <i>Physical Review Materials</i> , 2019, 3, .	2.4	19
18	Distinguishing Thermal and Electronic Effects in Ultrafast Optical Spectroscopy Using Oxide Heterostructures. <i>Journal of Physical Chemistry C</i> , 2018, 122, 115-123.	3.1	25

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19	Helical magnetism in Sr-doped CaMn ₇ O ₁₂ films. Physical Review B, 2018, 98, .	3.2	2
20	Inverted orbital polarization in strained correlated oxide films. Physical Review B, 2018, 98, .	3.2	7
21	Synthesis and characterization of the atomic laminate Mn ₂ AlB ₂ . Journal of the European Ceramic Society, 2018, 38, 5333-5340.	5.7	49
22	Magnetic properties of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and CrB powders. Journal of Alloys and Compounds, 2018, 767, 474-482.	5.5	48
23	Electronic structure of negative charge transfer across the metal-insulator transition. Physical Review Materials, 2018, 2, .	2.4	18
24	Effect of fluoropolymer composition on topochemical synthesis of oxyfluoride films. Physical Review Materials, 2018, 2, .	2.1	14
25	Polar Oxides without Inversion Symmetry through Vacancy and Chemical Order. Journal of the American Chemical Society, 2017, 139, 2833-2841.	13.7	34
26	Energy Level Alignment and Cation Charge States at the LaFeO ₃ /LaMnO ₃ (001) Heterointerface. Advanced Materials Interfaces, 2017, 4, 1700183.	3.7	14
27	Effect of cation off-stoichiometry on optical absorption in epitaxial LaFeO ₃ films. Physical Chemistry Chemical Physics, 2017, 19, 10371-10376.	2.8	19
28	Structural Doping to Control Local Magnetization in Isovalent Oxide Heterostructures. Physical Review Letters, 2017, 119, 197204.	7.8	28
29	2D molybdenum and vanadium nitrides synthesized by ammoniation of 2D transition metal carbides (MXenes). Nanoscale, 2017, 9, 17722-17730.	5.6	327
30	Growth and electrical transport properties of La _{0.7} Sr _{0.3} MnO ₃ thin films on Sr ₂ IrO ₄ single crystals. Physical Review B, 2017, 95, .	3.2	8
31	Interface-induced phenomena in magnetism. Reviews of Modern Physics, 2017, 89, .	45.6	672
32	Tracking BO ₆ Coupling in Perovskite Superlattices to Engineer Magnetic Interface Behavior. Microscopy and Microanalysis, 2016, 22, 904-905.	0.4	0
33	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). Advanced Functional Materials, 2016, 26, 3118-3127.	14.9	945
34	Highly Conductive Optical Quality Solution-Processed Films of 2D Titanium Carbide. Advanced Functional Materials, 2016, 26, 4162-4168.	14.9	680
35	Interplay between Cation and Charge Ordering in La _{1/3} Sr _{2/3} FeO ₃ Superlattices. Advanced Electronic Materials, 2016, 2, 1500372.	5.1	8
36	Octahedral rotation patterns in strained perovskite films: Implications for hybrid improper ferroelectricity. Physical Review B, 2016, 94, .	3.2	21

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37	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. Scientific Reports, 2016, 6, 26475.	3.3	141
38	Static and Dynamic Optical Properties of $\text{La}_{1-x}\text{Sr}_x\text{FeO}_{3-\delta}$: The Effects of A-Site and Oxygen Stoichiometry. Chemistry of Materials, 2016, 28, 97-105.	6.7	32
39	Control of electronic properties of 2D carbides (MXenes) by manipulating their transition metal layers. Nanoscale Horizons, 2016, 1, 227-234.	8.0	394
40	Experimental and theoretical characterization of ordered MAX phases $\text{Mo}_2\text{TiAlC}_2$ and $\text{Mo}_2\text{Ti}_2\text{AlC}_3$. Journal of Applied Physics, 2015, 118, .	2.5	217
41	Electronic transition above room temperature in $\text{CaMn}_7\text{O}_{12}$ films. Applied Physics Letters, 2015, 107, 142901.	3.3	9
42	Effects of cation stoichiometry on electronic and structural properties of LaNiO_3 . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	7
43	Synthesis, Structure, and Spectroscopy of Epitaxial EuFeO_3 Thin Films. Crystal Growth and Design, 2015, 15, 1105-1111.	3.0	19
44	Solid Solubility and Magnetism upon Mn Incorporation in the Bulk Ternary Carbides Cr_2AlC and Cr_2GaC . Materials Research Letters, 2015, 3, 16-22.	8.7	62
45	Raman scattering in $\text{La}_{1-x}\text{Sr}_x\text{FeO}_3$ thin films: annealing-induced reduction and phase transformation. Journal of Physics Condensed Matter, 2015, 27, 155401.	1.8	14
46	Towards 3D Mapping of BO_6 Octahedron Rotations at Perovskite Heterointerfaces, Unit Cell by Unit Cell. ACS Nano, 2015, 9, 8412-8419.	14.6	78
47	Spatial control of functional properties via octahedral modulations in complex oxide superlattices. Nature Communications, 2014, 5, 5710.	12.8	69
48	Control of Functional Responses Via Reversible Oxygen Loss in $\text{La}_{1-x}\text{Sr}_x\text{FeO}_{3-\delta}$ Films. Advanced Materials, 2014, 26, 1434-1438.	21.0	41
49	Band structure and optical transitions in LaFeO_3 : theory and experiment. Journal of Physics Condensed Matter, 2014, 26, 505502.	1.8	100
50	Electronic transport and conduction mechanism transition in $\text{La}_{1-\delta}\text{Sr}_{2\delta}\text{FeO}_3$ thin films. Journal of Applied Physics, 2014, 115, 233704.	2.5	13
51	Magnetic Oxide Heterostructures. Annual Review of Materials Research, 2014, 44, 65-90.	9.3	174
52	Atomic-Scale Characterization of Oxide Thin Films Gated by Ionic Liquid. ACS Applied Materials & Interfaces, 2014, 6, 17018-17023.	8.0	9
53	Effect of Interfacial Octahedral Behavior in Ultrathin Manganite Films. Nano Letters, 2014, 14, 2509-2514.	9.1	121
54	Fluorination of Epitaxial Oxides: Synthesis of Perovskite Oxyfluoride Thin Films. Journal of the American Chemical Society, 2014, 136, 2224-2227.	13.7	65

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55	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	6.7	1,173
56	Strain Effects in Narrow-Bandwidth Manganites: The Case of Epitaxial $\text{Eu}_{1-x}\text{Mn}_x\text{O}_2$ Films. Physical Review Applied, 2014, 1, .	3.8	9
57	The effect of oxygen vacancies on the electronic phase transition in La _{1/3} Sr _{2/3} FeO ₃ films. Applied Physics Letters, 2013, 103, .	3.3	16
58	Structural Investigation of Perovskite Manganite and Ferrite Films on Yttria-Stabilized Zirconia Substrates. Journal of the Electrochemical Society, 2012, 159, F436-F441.	2.9	4
59	Control of octahedral connectivity in perovskite oxide heterostructures: An emerging route to multifunctional materials discovery. MRS Bulletin, 2012, 37, 261-270.	3.5	378
60	Instrumental insights. Nature Materials, 2012, 11, 833-834. Control of octahedral rotations in (LaNiO ₃) _{1-x} (ETQq ₁) _x (x=0.784314) (Overlock 10 Tf 50 527 Td) (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="block">\text{La}_{1-x}\text{ETQq}_{1-x}\text{O}_3)	27.5	11
61	Control of octahedral rotations in (LaNiO ₃) _{1-x} (ETQq ₁) _x (x=0.784314) (Overlock 10 Tf 50 527 Td) (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="block">\text{La}_{1-x}\text{ETQq}_{1-x}\text{O}_3)	3.2	87
62	Delta Doping of Ferromagnetism in Antiferromagnetic Manganite Superlattices. Physical Review Letters, 2011, 107, 167202.	7.8	40
63	Probing Interfacial Electronic Structures in Atomic Layer LaMnO ₃ and SrTiO ₃ Superlattices. Advanced Materials, 2010, 22, 1156-1160.	21.0	69
64	Quantifying octahedral rotations in strained perovskite oxide films. Physical Review B, 2010, 82, .	3.2	293
65	Co@CoO@Au core-multi-shell nanocrystals. Journal of Materials Chemistry, 2010, 20, 439-443.	6.7	32
66	Tuning between the metallic antiferromagnetic and ferromagnetic phases of $\text{La}_{1-x}\text{Mn}_x\text{O}_2$. Physical Review B, 2009, 80, .	3.2	52
67	Enhanced ordering temperatures in antiferromagnetic manganite superlattices. Nature Materials, 2009, 8, 892-897.	27.5	145
68	Metal-Insulator Transition and Its Relation to Magnetic Structure in $\text{La}_{1-x}\text{Mn}_x\text{O}_3$ and $\text{Sr}_{1-x}\text{Mn}_x\text{O}_3$. Physical Review B, 2009, 80, .	7.8	202
69	Substrate orientation dependence of ferromagnetism in (Ga,Mn)As. Applied Physics Letters, 2008, 93, .	3.3	6
70	Magnetic properties of MnAs thin films grown on GaAs (001) by MOVPE. Physica B: Condensed Matter, 2007, 388, 370-373.	2.7	3
71	Three-Dimensional Nanoscale Composition Mapping of Semiconductor Nanowires. Nano Letters, 2006, 6, 181-185.	9.1	214
72	Ferromagnetic Self-Assembled Quantum Dots on Semiconductor Nanowires. Nano Letters, 2006, 6, 50-54.	9.1	59

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73	Direct observation of room temperature magnetism in (In,Mn)As thin films by magnetic force microscopy. Applied Surface Science, 2006, 252, 3509-3513.	6.1	4
74	Composition analysis of single semiconductor nanowires using pulsed-laser atom probe tomography. Applied Physics A: Materials Science and Processing, 2006, 85, 271-275.	2.3	47
75	Dendritic Nanowire Growth Mediated by a Self-Assembled Catalyst. Advanced Materials, 2005, 17, 598-602.	21.0	94
76	Room-temperature magneto-optical activity of InMnAs thin films. Applied Physics Letters, 2004, 85, 780-782.	3.3	9
77	Optical properties of Mn-doped InAs and InMnAs epitaxial films. Physica B: Condensed Matter, 2004, 344, 379-384.	2.7	10