Jon-Paul Maria

List of Publications by Year
in descending order

139	9,106	71004	46524
papers	citations	43 h-index	93 g-index

142	142	142	10316
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bipolar highâ€power impulse magnetron sputtering synthesis of highâ€entropy carbides. Journal of the American Ceramic Society, 2022, 105, 3862-3873.	1.9	2
2	Wakeâ€Up in Al_{1â”'}_xB_xN Ferroelectric Films. Advanced Electronic Materials, 2022, 8, .	2.6	18
3	High-entropy ceramics: Propelling applications through disorder. MRS Bulletin, 2022, 47, 194-202.	1.7	26
4	Long-lived modulation of plasmonic absorption by ballistic thermal injection. Nature Nanotechnology, 2021, 16, 47-51.	15.6	40
5	Filterless Nondispersive Infrared Sensing using Narrowband Infrared Emitting Metamaterials. ACS Photonics, 2021, 8, 472-480.	3.2	20
6	Mid-wave to near-IR optoelectronic properties and epsilon-near-zero behavior in indium-doped cadmium oxide. Physical Review Materials, 2021, 5, .	0.9	12
7	Cold sintering of magnetic BaFe12O19 and other ferrites at 300ÂÂ°C. Journal of Materials Science, 2021, 56, 11229-11236.	1.7	13
8	Thermal Conductivity of Aluminum Scandium Nitride for 5G Mobile Applications and Beyond. ACS Applied Materials & Interfaces, 2021, 13, 19031-19041.	4.0	51
9	Investigation of phase evolution within ZnOâ€“Bi2O3 varistors utilizing thin film prototypes. Journal of Materials Science, 2021, 56, 12740-12752.	1.7	4
10	Ferroelectricity in boron-substituted aluminum nitride thin films. Physical Review Materials, 2021, 5, .	0.9	53
11	Impact of the Synthesis Kinetics of Entropy-stabilized Oxide Thin Films Probed with 4D-STEM and STEM-EELS. Microscopy and Microanalysis, 2021, 27, 352-354.	0.2	1
12	Ferroelectrics everywhere: Ferroelectricity in magnesium substituted zinc oxide thin films. Journal of Applied Physics, 2021, 130, .	1.1	55
13	Ga₂O₃-on-SiC Composite Wafer for Thermal Management of Ultrawide Bandgap Electronics. ACS Applied Materials & Interfaces, 2021, 13, 40817-40829.	4.0	49
14	Strongly temperature dependent ferroelectric switching in AlN, Al1-xScxN, and Al1-xBxN thin films. Applied Physics Letters, 2021, 119, .	1.5	55
15	Thermal Conductivity of Î²-Phase Ga₂O₃ and (Al_xGa_{1â€“}_x)₂O₃ Heteroepitaxial Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 38477-38490.	4.0	24
16	Entropy Landscaping of Highâ€Entropy Carbides. Advanced Materials, 2021, 33, e2102904.	11.1	38
17	Settling the matter of the role of vibrations in the stability of high-entropy carbides. Nature Communications, 2021, 12, 5747.	5.8	28
18	Deterministic inverse design of Tamm plasmon thermal emitters with multi-resonant control. Nature Materials, 2021, 20, 1663-1669.	13.3	46

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19	Effects of strain, disorder, and Coulomb screening on free-carrier mobility in doped cadmium oxide. Journal of Applied Physics, 2021, 130, 195105.	1.1	1
20	Single step densification of high permittivity BaTiO3 ceramics at 300 ÂºC. Journal of the European Ceramic Society, 2020, 40, 1280-1284.	2.8	74
21	Cold sintering zinc oxide with a crystalline zinc acetate dihydrate mass transport phase. Journal of Materials Science, 2020, 55, 15117-15129.	1.7	17
22	High-Resolution STEM/STEM-EELS Characterization of Entropy-stabilized Oxides Thin Films. Microscopy and Microanalysis, 2020, 26, 1196-1197.	0.2	2
23	Hydroflux-assisted densification: applying flux crystal growth techniques to cold sintering. Journal of Materials Science, 2020, 55, 12747-12760.	1.7	10
24	Electron and phonon thermal conductivity in high entropy carbides with variable carbon content. Acta Materialia, 2020, 196, 231-239.	3.8	52
25	Crystallization behavior of amorphous BaTiO3 thin films. Journal of Materials Science, 2020, 55, 8793-8801.	1.7	9
26	Ultraviolet to far-infrared dielectric function of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>n</mml:mi></mml:mrow></mml:math> -doped cadmium oxide thin films. Physical Review Materials, 2020, 4, .	0.9	16
27	Property and cation valence engineering in entropy-stabilized oxide thin films. Physical Review Materials, 2020, 4, .	0.9	20
28	High-harmonic generation from an epsilon-near-zero material. Nature Physics, 2019, 15, 1022-1026.	6.5	137
29	Cold Sintering: Progress, Challenges, and Future Opportunities. Annual Review of Materials Research, 2019, 49, 275-295.	4.3	166
30	Mechanism studies of hydrothermal cold sintering of zinc oxide at near room temperature. Journal of the American Ceramic Society, 2019, 102, 4459-4469.	1.9	64
31	Instrumentation for automated and quantitative low temperature compaction and sintering. Review of Scientific Instruments, 2019, 90, 055104.	0.6	18
32	Multiple Epsilon-Near-Zero Resonances in Multilayered Cadmium Oxide: Designing Metamaterial-Like Optical Properties in Monolithic Materials. ACS Photonics, 2019, 6, 1139-1145.	3.2	33
33	Planar Hall effect and anisotropic magnetoresistance in semiconducting and conducting oxide thin films. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	5
34	Cold sintering with dimethyl sulfoxide solutions for metal oxides. Journal of Materials Science, 2019, 54, 7438-7446.	1.7	20
35	Polaritonic Hybrid-Epsilon-near-Zero Modes: Beating the Plasmonic Confinement vs Propagation-Length Trade-Off with Doped Cadmium Oxide Bilayers. Nano Letters, 2019, 19, 948-957.	4.5	61
36	Mechanical strength of cold-sintered zinc oxide under biaxial bending. Journal of Materials Science, 2019, 54, 4518-4522.	1.7	26

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37	Charge confinement and thermal transport processes in modulation-doped epitaxial crystals lacking lattice interfaces. Physical Review Materials, 2019, 3, .	0.9	2
38	Magnetic frustration control through tunable stereochemically driven disorder in entropy-stabilized oxides. Physical Review Materials, 2019, 3, .	0.9	29
39	Thermal Boundary Conductance Across Heteroepitaxial ZnO/GaN Interfaces: Assessment of the Phonon Gas Model. Nano Letters, 2018, 18, 7469-7477.	4.5	53
40	High-entropy high-hardness metal carbides discovered by entropy descriptors. Nature Communications, 2018, 9, 4980.	5.8	604
41	Connecting post-pulsing electrical and microstructural features in GeTe-based inline phase change switches. Journal of Applied Physics, 2018, 124, .	1.1	4
42	Hot Electron Thermoreflectance Coefficient of Gold during Electronâ€“Phonon Nonequilibrium. ACS Photonics, 2018, 5, 4880-4887.	3.2	20
43	Complexities of atomic structure at CdO/MgO and CdO/Al2O3 interfaces. Journal of Applied Physics, 2018, 124, .	1.1	2
44	Epitaxial entropy-stabilized oxides: growth of chemically diverse phases via kinetic bombardment. MRS Communications, 2018, 8, 1371-1377.	0.8	36
45	Chargeâ€Induced Disorder Controls the Thermal Conductivity of Entropyâ€Stabilized Oxides. Advanced Materials, 2018, 30, e1805004.	11.1	302
46	Viscoelastic optical nonlocality of low-loss epsilon-near-zero nanofilms. Scientific Reports, 2018, 8, 9335.	1.6	30
47	High throughput investigation of shocked reactive nanolaminates. AIP Conference Proceedings, 2018, , .	0.3	2
48	As good as gold and better: conducting metal oxide materials for mid-infrared plasmonic applications. Journal of Materials Chemistry C, 2018, 6, 8326-8342.	2.7	46
49	Enhanced dielectric and piezoelectric responses in Zn1-xMgxO thin films near the phase separation boundary. Applied Physics Letters, 2017, 110, .	1.5	9
50	The role of ceramic and glass science research in meeting societal challenges: Report from an <scp>NSF</scp>â€sponsored workshop. Journal of the American Ceramic Society, 2017, 100, 1777-1803.	1.9	23
51	Femtosecond optical polarization switching using a cadmium oxide-based perfect absorber. Nature Photonics, 2017, 11, 390-395.	15.6	245
52	Local structure of the Mg_xNi_xCo_xCu_xZn_xO(x=0.2) entropyâ€stabilized oxide: An EXAFS study. Journal of the American Ceramic Society, 2017, 100, 2732-2738.	1.9	168
53	Hafnium nitride films for thermoreflectance transducers at high temperatures: Potential based on heating from laser absorption. Applied Physics Letters, 2017, 111, .	1.5	14
54	Nanoscale Compositional Analysis of a Thermally Processed Entropy-Stabilized Oxide via Correlative TEM and APT. Microscopy and Microanalysis, 2017, 23, 1640-1641.	0.2	6

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55	Epsilon-near-Zero Modes and Surface Plasmon Resonance in Fluorine-Doped Cadmium Oxide Thin Films. ACS Photonics, 2017, 4, 1885-1892.	3.2	69
56	Cold sintering: Current status and prospects. Journal of Materials Research, 2017, 32, 3205-3218.	1.2	195
57	High mobility yttrium doped cadmium oxide thin films. APL Materials, 2017, 5, .	2.2	43
58	Domain imaging in ferroelectric thin films via channeling-contrast backscattered electron microscopy. Journal of Materials Science, 2017, 52, 1071-1081.	1.7	15
59	Femtosecond switching of infrared light using a plasmonic cadmium oxide perfect absorber. , 2017, , .		0
60	The role of surface kinetics on composition and quality of AlGaN. Journal of Crystal Growth, 2016, 451, 65-71.	0.7	112
61	Observing Misfit Dislocation Interactions Across Thin Film Oxide Heterostructures. Microscopy and Microanalysis, 2016, 22, 1506-1507.	0.2	0
62	Selective area epitaxy of magnesium oxide thin films on gallium nitride surfaces. Journal of Materials Research, 2016, 31, 36-45.	1.2	3
63	Interplay between mass-impurity and vacancy phonon scattering effects on the thermal conductivity of doped cadmium oxide. Applied Physics Letters, 2016, 108, 021901.	1.5	19
64	Microstructure and dielectric properties with CuO additions to liquid phase sintered BaTiO3 thin films. Journal of Materials Research, 2016, 31, 1018-1026.	1.2	3
65	Crystalline coherence length effects on the thermal conductivity of MgO thin films. Journal of Materials Science, 2016, 51, 10408-10417.	1.7	14
66	Near-Infrared Optical Extinction of Indium Tin Oxide Structures Prepared by Nanosphere Lithography. ACS Photonics, 2016, 3, 1993-1999.	3.2	19
67	Scaling Effects in Perovskite Ferroelectrics: Fundamental Limits and Processâ€Structureâ€Property Relations. Journal of the American Ceramic Society, 2016, 99, 2537-2557.	1.9	146
68	Chemical Homogeneity in Entropy-Stabilized Complex Metal Oxides. Microscopy and Microanalysis, 2015, 21, 1349-1350.	0.2	3
69	Domain Structure of Bulk and Thin-Film Ferroelectrics By Transmission Kikuchi Diffraction. Microscopy and Microanalysis, 2015, 21, 777-778.	0.2	2
70	Lowâ€Temperature Control of Twins and Abnormal Grain Growth in BaTiO 3. Journal of the American Ceramic Society, 2015, 98, 2381-2387.	1.9	5
71	Dysprosium-doped cadmium oxide as a gateway material for mid-infrared plasmonics. Nature Materials, 2015, 14, 414-420.	13.3	216
72	Entropy-stabilized oxides. Nature Communications, 2015, 6, 8485.	5.8	1,624

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73	Probing the Reaction Dynamics of Thermite Nanolaminates. Journal of Physical Chemistry C, 2015, 119, 20401-20408.	1.5	47
74	Flexoelectricity in barium strontium titanate thin film. Applied Physics Letters, 2014, 105, .	1.5	42
75	Polarity characterization by anomalous x-ray dispersion of ZnO films and GaN lateral polar structures. Journal of Applied Physics, 2014, 115, 044912.	1.1	6
76	Mechanisms for microstructure enhancement in flux-assisted growth of barium titanate on sapphire. Journal of Materials Research, 2014, 29, 843-848.	1.2	7
77	Smooth cubic commensurate oxides on gallium nitride. Journal of Applied Physics, 2014, 115, .	1.1	9
78	Structural annealing of carbon coated aligned multi-walled carbon nanotube sheets. Carbon, 2014, 79, 113-122.	5.4	37
79	Highly Conductive and Conformal Poly(3,4-ethylenedioxythiophene) (PEDOT) Thin Films via Oxidative Molecular Layer Deposition. Chemistry of Materials, 2014, 26, 3471-3478.	3.2	92
80	Investigation of Local A-site Chemistry in Barium Strontium Titanate Using Aberration Corrected STEM, EELS and EDS. Microscopy and Microanalysis, 2014, 20, 1992-1993.	0.2	0
81	Ge doped GaN with controllable high carrier concentration for plasmonic applications. Applied Physics Letters, 2013, 103, .	1.5	45
82	Mid-infrared surface plasmon resonance in zinc oxide semiconductor thin films. Applied Physics Letters, 2013, 102, .	1.5	69
83	Surface wrinkling by chemical modification of poly(dimethylsiloxane)-based networks during sputtering. Soft Matter, 2013, 9, 7797.	1.2	32
84	Optimizing phase and microstructure of chemical solution-deposited bismuth ferrite (BiFeO3) thin films to reduce DC leakage. Journal of Materials Science, 2013, 48, 1578-1584.	1.7	21
85	Realizing strain enhanced dielectric properties in BaTiO3 films by liquid phase assisted growth. Applied Physics Letters, 2013, 103, .	1.5	13
86	Structural and magnetic properties of biaxially textured NiFe2O4 thin films grown on c-plane sapphire. Journal of Applied Physics, 2012, 112, .	1.1	15
87	Challenges in Ceramic Science: A Report from the Workshop on Emerging Research Areas in Ceramic Science. Journal of the American Ceramic Society, 2012, 95, 3699-3712.	1.9	59
88	Chemically Homogeneous Complex Oxide Thin Films Via Improved Substrate Metallization. Advanced Functional Materials, 2012, 22, 2295-2302.	7.8	53
89	Functional Coatings: Chemically Homogeneous Complex Oxide Thin Films Via Improved Substrate Metallization (Adv. Funct. Mater. 11/2012). Advanced Functional Materials, 2012, 22, 2214-2214.	7.8	0
90	Characterizing the Molecular Order of Phosphonic Acid Self-Assembled Monolayers on Indium Tin Oxide Surfaces. Langmuir, 2011, 27, 11883-11888.	1.6	43

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91	Mechanical and electrical property improvement in CNT/Nylon composites through drawing and stretching. Composites Science and Technology, 2011, 71, 1677-1683.	3.8	121
92	Epitaxial growth of lanthanide oxides La2O3 and Sc2O3 on GaN. Applied Physics Letters, 2011, 98, 042902.	1.5	19
93	Permittivity scaling in Ba1â^'xSrxTiO3 thin films and ceramics. Journal of Applied Physics, 2011, 109, .	1.1	38
94	A novel approach to fabricate high volume fraction nanocomposites with long aligned carbon nanotubes. Composites Science and Technology, 2010, 70, 1980-1985.	3.8	179
95	Reproducibility and Ferroelectric Fatigue of Lead Zirconate Titanate Thin Films Deposited Directly on Copper Via a Composite Gel Architecture. Journal of the American Ceramic Society, 2010, 93, 3983-3985.	1.9	9
96	Processing Technologies for Highâ€Permittivity Thin Films in Capacitor Applications. Journal of the American Ceramic Society, 2010, 93, 3935-3954.	1.9	105
97	In situ methods to explore microstructure evolution in chemically derived oxide thin films. Journal of Materials Research, 2010, 25, 427-436.	1.2	7
98	Critical examination of growth rate for magnesium oxide (MgO) thin films deposited by molecular beam epitaxy with a molecular oxygen flux. Journal of Materials Research, 2010, 25, 670-679.	1.2	11
99	Conductive oxide thin films: Model systems for understanding and controlling surface plasmon resonance. Journal of Applied Physics, 2009, 106, .	1.1	89
100	Plasmonic phenomena in indium tin oxide and ITO-Au hybrid films. Optics Letters, 2009, 34, 2867.	1.7	103
101	Dielectric and microstructural properties of barium titanate hafnate thin films. Thin Solid Films, 2008, 516, 3162-3166.	0.8	10
102	Defect chemistry of nano-grained barium titanate films. Journal of Materials Science, 2008, 43, 38-42.	1.7	9
103	Synthesis and properties of barium titanate stannate thin films by chemical solution deposition. Journal of Materials Science, 2008, 43, 4264-4270.	1.7	9
104	Epitaxial growth of the metastable phase ytterbium monoxide on gallium nitride surfaces. Journal of Crystal Growth, 2008, 310, 51-56.	0.7	10
105	TF012 - high temperature sputtering of barium strontium titanate on nickel foils. , 2008, , .		0
106	Importance Of Solution Chemistry In Preparing Solâ€"Gel PZT Thin Films Directly On Copper Surfaces. Chemistry of Materials, 2008, 20, 303-307.	3.2	26
107	Extrinsic scaling effects on the dielectric response of ferroelectric thin films. Journal of Applied Physics, 2008, 103, .	1.1	45
108	High temperature stability of Hf-based gate dielectric stacks with rare-earth oxide layers for threshold voltage control. Applied Physics Letters, 2008, 92, 112912.	1.5	10

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109	Hot sputtering of barium strontium titanate on nickel foils. Journal of Applied Physics, 2008, 103, .	1.1	30
110	Smart electrodes for ultralarge-area thin film capacitors. Journal of Materials Research, 2007, 22, 1763-1766.	1.2	4
111	Epitaxial calcium oxide films deposited on gallium nitride surfaces. Journal of Vacuum Science & Technology B, 2007, 25, 1029.	1.3	13
112	Influence of indiumâ€“tin oxide surface structure on the ordering and coverage of carboxylic acid and thiol monolayers. Journal Physics D: Applied Physics, 2007, 40, 4212-4221.	1.3	38
113	Lead zirconate titanate thin film capacitors on electroless nickel coated copper foils for embedded passive applications. Thin Solid Films, 2007, 515, 7331-7336.	0.8	14
114	Electrical Properties of Lead Zirconate Titanate Thin Films With a ZrO2Buffer Layer on an Electroless Ni-Coated Cu Foil. Journal of the American Ceramic Society, 2006, 89, 3426-3430.	1.9	8
115	Voltage Controlled GaN-on-Si HFET Power Oscillator Using Thin-Film Ferroelectric Varactor Tuning. , 2006, , .		9
116	Surface plasmon resonance in conducting metal oxides. Journal of Applied Physics, 2006, 100, 054905.	1.1	258
117	Towards the Fabrication of Ultra-Thin SOI on Si (001) using Epitaxial Oxide and Epitaxial Semiconductor Growth Processes. ECS Transactions, 2006, 3, 449-460.	0.3	3
118	Investigation of the electrical and optical properties of iridium oxide by reflectance FTIR spectroscopy and density functional theory calculations. Chemical Physics, 2005, 313, 25-31.	0.9	34
119	Preparation of Sputtered (Bax,Sr1-x)TiO3 Thin Films Directly on Copper. Journal of the American Ceramic Society, 2005, 88, 2652-2654.	1.9	35
120	Characterization of the Piezoelectric Properties of Pb_{0.98}Ba_{0.02}(Mg_{1/3}Nb_{2/3})O₃â€“PbTiO₃ Epitaxial Thin Films. International Journal of Applied Ceramic Technology, 2005, 2, 51-58.	1.1	20
121	Copper Compatible Barium Titanate Thin Films for Embedded Passives. Journal of Electroceramics, 2005, 14, 95-102.	0.8	109
122	Effects of Processing Conditions on the Dielectric Properties of CaCu3Ti4O12. Journal of Electroceramics, 2005, 15, 203-208.	0.8	31
123	Synthesis and Properties of Barium Titanate Thin Films Deposited on Copper Foil Substrates. Materials Research Society Symposia Proceedings, 2005, 902, 1.	0.1	9
124	Ferroelectric response from lead zirconate titanate thin films prepared directly on low-resistivity copper substrates. Applied Physics Letters, 2005, 86, 172906.	1.5	61
125	Ca-doped lead zirconate titanate thin film capacitors on base metal nickel on copper foil. Journal of Materials Research, 2004, 19, 2841-2848.	1.2	43
126	Evaluation of intrinsic and extrinsic contributions to the piezoelectric properties of Pb(Zr1â^'XTX)O3 thin films as a function of composition. Journal of Applied Physics, 2003, 93, 5568-5575.	1.1	180

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127	TEM and Electrical Analysis of Sputtered Barium Strontium Titanate (BST) Thin Films on Flexible Copper Substrates. Materials Research Society Symposia Proceedings, 2003, 784, 531.	0.1	5
128	Cu-Compatible Ultra-High Permittivity Dielectrics for Embedded Passive Components. Materials Research Society Symposia Proceedings, 2003, 783, 321.	0.1	6
129	Stability of ZrO2 layers on Si (001) during high-temperature anneals under reduced oxygen partial pressures. Journal of Applied Physics, 2002, 92, 82-86.	1.1	46
130	Compositional Effects on the Piezoelectric and Ferroelectric Properties of Chemical Solution Deposited PZT Thin Films. Materials Research Society Symposia Proceedings, 2001, 688, 1.	0.1	2
131	Thick electrodes for high frequency high Q tunable ferroelectric thin film varactors. Integrated Ferroelectrics, 2001, 39, 321-330.	0.3	13
132	Lead Zirconate Titanate Thin Films on Baseâ€Metal Foils: An Approach for Embedded Highâ€Permittivity Passive Components. Journal of the American Ceramic Society, 2001, 84, 2436-2438.	1.9	86
133	Alternative dielectrics to silicon dioxide for memory and logic devices. Nature, 2000, 406, 1032-1038.	13.7	1,183
134	Origin of preferential orthorhombic twinning in SrRuO3 epitaxial thin films. Applied Physics Letters, 2000, 76, 3382-3384.	1.5	50
135	Spatial variation of ferroelectric properties in Pb(Zr0.3,â€ŠTi0.7)O3 thin films studied by atomic force microscopy. Journal of Applied Physics, 2000, 87, 8031-8034.	1.1	47
136	Measurement of Piezoelectric Displacements of Pb(Zr, Ti)O3Thin Films Using a Double-Beam Interferometer. Japanese Journal of Applied Physics, 1999, 38, 5402-5405.	0.8	23
137	Influences on imprint failure of SrBi2Ta2O9 thin film capacitors. Integrated Ferroelectrics, 1999, 25, 351-361.	0.3	2
138	Preparation of Piezoelectric PZT Thin Films by Mocvd for MEMS Applications. Materials Research Society Symposia Proceedings, 1999, 596, 541.	0.1	1
139	Thermally Induced Imprint of PZT and SBT Thin Films. Materials Research Society Symposia Proceedings, 1998, 541, 469.	0.1	1