

# Vaithiyalingam Shutthanandan

## List of Publications by Year in descending order

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253  
papers

8,892  
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47006

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58581

82  
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259  
all docs

259  
docs citations

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times ranked

10911  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mexico City aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) – Part 1: Fine particle composition and organic source apportionment. Atmospheric Chemistry and Physics, 2009, 9, 6633-6653.	4.9	525
2	Characterization of ambient aerosols in Mexico City during the MCMA-2003 campaign with Aerosol Mass Spectrometry: results from the CENICA Supersite. Atmospheric Chemistry and Physics, 2006, 6, 925-946.	4.9	341
3	A mechanism for carbon nanosheet formation. Carbon, 2007, 45, 2229-2234.	10.3	315
4	Instability, intermixing and electronic structure at the epitaxial $\text{LaAlO}_3/\text{LaAlO}_3$ interface. <i>Physical Review Letters</i> , 2007, 99, 086102.		

#	ARTICLE	IF	CITATIONS
19	Growth and surface characterization of sputter-deposited molybdenum oxide thin films. Applied Surface Science, 2007, 253, 5368-5374.	6.1	130
20	Lack of ferromagnetism inn-type cobalt-doped ZnO epitaxial thin films. New Journal of Physics, 2008, 10, 055010.	2.9	123
21	Epitaxial growth, structure, and intermixing at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface as the film stoichiometry is varied. Physical Review B, 2011, 83, 085411.	3.2	108
22	Radiation stability of nanoclusters in nano-structured oxide dispersion strengthened (ODS) steels. Journal of Nuclear Materials, 2013, 434, 311-321.	2.7	107
23	Ferromagnetic Cr-doped ZnO for spin electronics via magnetron sputtering. Journal of Applied Physics, 2005, 97, 10D310.	2.5	104
24	Aerosol composition and source apportionment in the Mexico City Metropolitan Area with PIXE/PESA/STIM and multivariate analysis. Atmospheric Chemistry and Physics, 2006, 6, 4591-4600.	4.9	98
25	Effects of implantation temperature on damage accumulation in Al-implanted $4\text{H}\text{-SiC}$ . Journal of Applied Physics, 2004, 95, 4012-4018.	2.5	89
26	Effect of Co doping on the structural, optical and magnetic properties of ZnO nanoparticles. Journal of Physics Condensed Matter, 2007, 19, 266203.	1.8	88
27	Microscopic characterization of carbonaceous aerosol particle aging in the outflow from Mexico City. Atmospheric Chemistry and Physics, 2010, 10, 961-976.	4.9	85
28	Electrical transport properties of Ti-doped $\text{Fe}_2\text{O}_3$ epitaxial films. Physical Review B, 2011, 84, 085411.	3.2	85
29	Growth and properties of molecular beam epitaxially grown ferromagnetic Fe-doped $\text{TiO}_2$ rutile films on $\text{TiO}_2(110)$ . Applied Physics Letters, 2004, 84, 3531-3533.	3.3	79
30	Ferromagnetism and structure of epitaxial Cr-doped anatase $\text{TiO}_2$ thin films. Physical Review B, 2006, 73, 085411.	3.2	77
31	Thermodynamic instability at the stoichiometric $\text{LaAlO}_3/\text{SrTiO}_3$ (001) interface. Journal of Physics Condensed Matter, 2010, 22, 312201.	1.8	77
32	Metal-Organic Framework-Based Microfluidic Impedance Sensor Platform for Ultrasensitive Detection of Perfluorooctanesulfonate. ACS Applied Materials & Interfaces, 2020, 12, 10503-10514.	8.0	77
33	Field-induced insulator-to-metal transition in $\text{La}_{1-x}\text{Sr}_x\text{TiO}_3$ thin films. Physical Review B, 2011, 84, 085411.	3.2	74
34	Cr-doped $\text{TiO}_2$ anatase: A ferromagnetic insulator. Journal of Applied Physics, 2005, 97, 046103.	2.5	71
35	Hierarchically Porous Graphitic Carbon with Simultaneously High Surface Area and Colossal Pore Volume Engineered via Ice Templating. ACS Nano, 2017, 11, 11047-11055.	14.6	69
36	High-temperature oxidation resistance and surface electrical conductivity of stainless steels with filtered arc $\text{Al-N}$ multilayer and/or superlattice coatings. Surface and Coatings Technology, 2004, 188-189, 55-61.	4.8	63

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37	Properties of structurally excellent N-doped TiO <sub>2</sub> rutile. <i>Chemical Physics</i> , 2007, 339, 27-35.	1.9	57
38	Epitaxial growth of fcc Ti films on Al(001) surfaces. <i>Physical Review B</i> , 1997, 56, 9841-9847.	3.2	55
39	Crystallographic dependence of visible-light photoactivity in epitaxial TiO <sub>2</sub> <sup>n</sup> anatase and rutile. <i>Physical Review B</i> , 2009, 79, .	3.2	55
40	Core-Shell Diamond as a Support for Solid-Phase Extraction and High-Performance Liquid Chromatography. <i>Analytical Chemistry</i> , 2010, 82, 4448-4456.	6.5	55
41	X-ray absorption fine structure and magnetization characterization of the metallic Co component in Co-doped ZnO thin films. <i>Physical Review B</i> , 2009, 79, .	3.2	53
42	Observation of ultrathin metastable fcc Ti films on Al(110) surfaces. <i>Physical Review B</i> , 1994, 49, 4908-4914.	3.2	52
43	Multi-instrument characterization of the surfaces and materials in microfabricated, carbon nanotube-templated thin layer chromatography plates. An analogy to "The Blind Men and the Elephant"™. <i>Surface and Interface Analysis</i> , 2013, 45, 1273-1282.	1.8	52
44	Probing the Sorption of Perfluorooctanesulfonate Using Mesoporous Metal-Organic Frameworks from Aqueous Solutions. <i>Inorganic Chemistry</i> , 2019, 58, 8339-8346.	4.0	51
45	Room-temperature ferromagnetism in ion-implanted Co-doped TiO <sub>2</sub> (110) rutile. <i>Applied Physics Letters</i> , 2004, 84, 4466-4468.	3.3	49
46	Multilayered YSZ/GZO films with greatly enhanced ionic conduction for low temperature solid oxide fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 1296-1301.	2.8	49
47	The Impacts of Cation Stoichiometry and Substrate Surface Quality on Nucleation, Structure, Defect Formation, and Intermixing in Complex Oxide Heteroepitaxy of LaCrO <sub>3</sub> on SrTiO <sub>3</sub> (001). <i>Advanced Functional Materials</i> , 2013, 23, 2953-2963.	14.9	48
48	Instability of Hydrogenated TiO <sub>2</sub> . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4627-4632.	4.6	48
49	Ice nucleation activity of diesel soot particles at cirrus relevant temperature conditions: Effects of hydration, secondary organics coating, soot morphology, and coagulation. <i>Geophysical Research Letters</i> , 2016, 43, 3580-3588.	4.0	47
50	Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC. <i>Journal of Nuclear Materials</i> , 2001, 289, 96-101.	2.7	46
51	Stability of nanoclusters in 14YWT oxide dispersion strengthened steel under heavy ion-irradiation by atom probe tomography. <i>Journal of Nuclear Materials</i> , 2014, 455, 41-45.	2.7	46
52	Crystal Chemistry, Band-Gap Red Shift, and Electrocatalytic Activity of Iron-Doped Gallium Oxide Ceramics. <i>ACS Omega</i> , 2020, 5, 104-112.	3.5	45
53	Nonstoichiometric material transfer in the pulsed laser deposition of LaAlO <sub>3</sub> . <i>Applied Physics Letters</i> , 2010, 97, .	3.3	43
54	Suppression of conductivity in Mn-doped ZnO thin films. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	42

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55	Effect of thickness on the structure, composition and properties of titanium nitride nano-coatings. <i>Ceramics International</i> , 2014, 40, 5757-5764.	4.8	42
56	Elucidating grapheneâ€™s ionic liquid interfacial region: A combined experimental and computational study. <i>Nano Energy</i> , 2014, 3, 152-158.	16.0	42
57	Tungsten Incorporation into Gallium Oxide: Crystal Structure, Surface and Interface Chemistry, Thermal Stability, and Interdiffusion. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26720-26735.	3.1	42
58	Alloy formation at the Niâ€™Al interface for nickel films deposited on Al(110) surfaces. <i>Surface Science</i> , 2000, 450, 204-226.	1.9	40
59	Direct observation of atomic disordering at the SrTiO <sub>3</sub> /Si interface due to oxygen diffusion. <i>Applied Physics Letters</i> , 2002, 80, 1803-1805.	3.3	39
60	Damage evolution on Sm and O sublattices in Au-implanted samarium titanate pyrochlore. <i>Journal of Applied Physics</i> , 2004, 95, 2866-2872.	2.5	37
61	Comparative Analysis of Urban Atmospheric Aerosol by Particle-Induced X-ray Emission (PIXE), Proton Elastic Scattering Analysis (PESA), and Aerosol Mass Spectrometry (AMS). <i>Environmental Science &amp; Technology</i> , 2008, 42, 6619-6624.	10.0	36
62	Photoluminescence of SnO <sub>2</sub> nanoparticles embedded in Al <sub>2</sub> O <sub>3</sub> . <i>Journal Physics D: Applied Physics</i> , 2008, 41, 225102.	2.8	36
63	Growth of ultrathin Pd films on Al(001) surfaces. <i>Surface Science</i> , 1996, 350, 11-20.	1.9	35
64	Room temperature growth of thin Fe films on Al(001) and Al(110) surfaces. <i>Surface Science</i> , 1996, 365, 78-86.	1.9	34
65	Oxygen transport studies in nanocrystalline ceria films. <i>Journal of Materials Research</i> , 2005, 20, 1295-1299.	2.6	33
66	An investigation of hydrogen depth profiling using ToFâ€™SIMS. <i>Surface and Interface Analysis</i> , 2012, 44, 232-237.	1.8	33
67	Probing cation antisite disorder in Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> pyrochlore by site-specific near-edge x-ray-absorption fine structure and x-ray photoelectron spectroscopy. <i>Physical Review B</i> , 2004, 70, .	3.2	32
68	LaCrO <sub>3</sub> heteroepitaxy on SrTiO <sub>3</sub> (001) by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2011, 99, 061904.	3.3	32
69	Correlation between optical properties and chemical composition of sputter-deposited germanium oxide (GeO <sub>x</sub> ) films. <i>Optical Materials</i> , 2014, 36, 1177-1182.	3.6	31
70	Studies of two- and three-dimensional ZnO:Co structures through different synthetic routes. <i>Journal of Applied Physics</i> , 2004, 95, 7393-7395.	2.5	30
71	On the Relationship between Nonstoichiometry and Passivity Breakdown in Ultrathin Oxides: Combined Depth-Dependent Spectroscopy, Mottâ€™Schottky Analysis, and Molecular Dynamics Simulation Studies. <i>Journal of Physical Chemistry C</i> , 2009, 113, 3502-3511.	3.1	30
72	Microstructure of ZrO <sub>2</sub> â€™CeO <sub>2</sub> hetero-multi-layer films grown on YSZ substrate. <i>Acta Materialia</i> , 2005, 53, 1921-1929.	7.9	29

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73	Performance of solid oxide fuel cells operated with coal syngas provided directly from a gasification process. <i>Journal of Power Sources</i> , 2012, 214, 142-152.	7.8	29
74	Near-surface and bulk behavior of Ag in SiC. <i>Journal of Nuclear Materials</i> , 2012, 420, 123-130.	2.7	29
75	Impact of lattice mismatch and stoichiometry on the structure and bandgap of (Fe,Cr) <sub>2</sub> O <sub>3</sub> epitaxial thin films. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 135005.	1.8	29
76	Competing Pathways for Nucleation of the Double Perovskite Structure in the Epitaxial Synthesis of La <sub>2</sub> MnNiO <sub>6</sub> . <i>Chemistry of Materials</i> , 2016, 28, 3814-3822.	6.7	29
77	Photochemical Properties, Composition, and Structure in Molecular Beam Epitaxy Grown Fe-δDoped and (Fe,N) Codoped Rutile TiO <sub>2</sub> (110). <i>Journal of Physical Chemistry C</i> , 2011, 115, 15416-15424.	3.1	28
78	Feasibility of the Detection of Trace Elements in Particulate Matter Using Online High-Resolution Aerosol Mass Spectrometry. <i>Aerosol Science and Technology</i> , 2012, 46, 1187-1200.	3.1	28
79	Rapid Response High Temperature Oxygen Sensor Based on Titanium Doped Gallium Oxide. <i>Scientific Reports</i> , 2020, 10, 178.	3.3	28
80	Characterization of amorphous zinc tin oxide semiconductors. <i>Journal of Materials Research</i> , 2012, 27, 2309-2317.	2.6	27
81	Ion beam analysis of irradiation effects in 6H-SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 207, 92-99.	1.4	26
82	Influence of samaria doping on the resistance of ceria thin films and its implications to the planar oxygen sensing devices. <i>Sensors and Actuators B: Chemical</i> , 2009, 139, 380-386.	7.8	26
83	Radiation-Induced Reduction of Ceria in Single and Polycrystalline Thin Films. <i>Journal of Physical Chemistry C</i> , 2012, 116, 361-366.	3.1	26
84	Microstructure of precipitated Au nanoclusters in MgO. <i>Journal of Applied Physics</i> , 2003, 93, 6327-6333.	2.5	24
85	Microstructure of precipitated Au nanoclusters in TiO <sub>2</sub> . <i>Journal of Applied Physics</i> , 2004, 95, 8185-8193.	2.5	24
86	Tribological performance of hybrid filtered arc-magnetron coatings. <i>Surface and Coatings Technology</i> , 2006, 201, 3732-3747.	4.8	24
87	Epitaxial growth of NiTiO <sub>3</sub> with a distorted ilmenite structure. <i>Thin Solid Films</i> , 2012, 520, 5534-5541.	1.8	24
88	Correlation between Structure, Chemistry, and Dielectric Properties of Iron-Doped Gallium Oxide (Ga <sub>2-x</sub> Fe <sub>x</sub> O <sub>3</sub> ). <i>Journal of Physical Chemistry C</i> , 2018, 122, 27597-27607.	3.1	24
89	Distortion of the oxygen sublattice in pure cubic-ZrO <sub>2</sub> . <i>Journal of Materials Research</i> , 2004, 19, 1315-1319.	2.6	23
90	Effect of Mn doping on the structural, morphological, optical and magnetic properties of indium tin oxide films. <i>Journal of Materials Science: Materials in Electronics</i> , 2007, 18, 1197-1201.	2.2	23

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91	Electronic properties of H and D doped ZnO epitaxial films. Applied Physics Letters, 2008, 92, 152105.	3.3	23
92	Influence of growth rate on the epitaxial orientation and crystalline quality of CeO <sub>2</sub> thin films grown on Al <sub>2</sub> O <sub>3</sub> (0001). Journal of Applied Physics, 2011, 109, .	2.5	23
93	Subsurface synthesis and characterization of Ag nanoparticles embedded in MgO. Nanotechnology, 2013, 24, 095707.	2.6	23
94	Cation intermixing and electronic deviations at the insulating LaCrO <sub>3</sub> /SrTiO <sub>3</sub> (001) interface. Physical Review B, 2013, 88, .	3.2	23
95	RedOx-controlled sorption of iodine anions by hydrotalcite composites. RSC Advances, 2016, 6, 76042-76055.	3.6	23
96	Structure of Cr film epitaxially grown on MgO(001). Acta Materialia, 2011, 59, 4274-4282.	7.9	22
97	Investigation of Copper(I) Oxide Quantum Dots by Near-Edge X-ray Absorption Fine Structure Spectroscopy. Chemistry of Materials, 2003, 15, 3939-3946.	6.7	21
98	Oxidation and metal-insertion in molybdenite surfaces: evaluation of charge-transfer mechanisms and dynamics. Geochemical Transactions, 2008, 9, 8.	0.7	21
99	Growth and structure of epitaxial Ce <sub>0.8</sub> Sm <sub>0.2</sub> O <sub>1.9</sub> by oxygen-plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2008, 310, 2450-2456.	1.5	21
100	Effect of Ti doping on the crystallography, phase, surface/interface structure and optical band gap of Ga <sub>2</sub> O <sub>3</sub> thin films. Journal of Materials Science, 2019, 54, 11526-11537.	3.7	21
101	Electronic Structure of Tungsten-Doped $\text{Ga}_{2}\text{O}_{3}$ Compounds. ECS Journal of Solid State Science and Technology, 2019, 8, Q3111-Q3115.	1.8	21
102	Effect of Titanium Induced Chemical Inhomogeneity on Crystal Structure, Electronic Structure, and Optical Properties of Wide Band Gap Ga <sub>2</sub> O <sub>3</sub> . Crystal Growth and Design, 2020, 20, 1422-1433.	3.0	21
103	Electronic structure and chemical bonding in transition-metal-mixed gallium oxide (Ga <sub>2</sub> O <sub>3</sub> ) compounds. Journal of Physics and Chemistry of Solids, 2021, 157, 110174.	4.0	21
104	Room temperature reaction of thin Ni films with Al(110) surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1780-1785.	2.1	20
105	Damage accumulation and amorphization in samarium titanate pyrochlore. Nuclear Instruments & Methods in Physics Research B, 2004, 218, 89-94.	1.4	20
106	Thermal and dynamic responses of Ag implants in silicon carbide. Nuclear Instruments & Methods in Physics Research B, 2004, 219-220, 642-646.	1.4	20
107	Oxidation studies of CrAlON nanolayered coatings on steel plates. Surface and Coatings Technology, 2006, 201, 1685-1694.	4.8	20
108	Synthesis and characterization of lithium-doped tin dioxide nanocrystalline powders. Materials Chemistry and Physics, 2007, 102, 176-180.	4.0	20

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109	A study of H and D doped ZnO epitaxial films grown by pulsed laser deposition. Journal of Applied Physics, 2008, 104, 053711.	2.5	20
110	Increased Thermal Conductivity in Metal-Organic Heat Carrier Nanofluids. Scientific Reports, 2016, 6, 27805.	3.3	20
111	Damage evolution of ion irradiated defected-fluorite La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> epitaxial thin films. Acta Materialia, 2017, 130, 111-120.	7.9	20
112	Size- and Phase-Controlled Nanometer-Thick $\text{In}_2\text{Ga}_2\text{O}_3$ Films with Green Photoluminescence for Optoelectronic Applications. ACS Applied Nano Materials, 2021, 4, 3331-3338.	5.0	20
113	On the room-temperature ferromagnetism of Zn <sub>1-x</sub> CrxO thin films deposited by reactive co-sputtering. Solar Energy Materials and Solar Cells, 2007, 91, 1496-1502.	6.2	19
114	A novel accelerated moisture absorption test and characterization. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1501-1505.	7.6	19
115	Enzyme-free detection of hydrogen peroxide from cerium oxide nanoparticles immobilized on poly(4-vinylpyridine) self-assembled monolayers. Journal of Materials Chemistry B, 2013, 1, 3443.	5.8	19
116	Accumulation and thermal recovery of disorder in Au <sup>2+</sup> -irradiated SrTiO <sub>3</sub> . Journal of Nuclear Materials, 2001, 289, 204-209.	2.7	18
117	Development of PIXE, PESA and transmission ion microscopy capability to measure aerosols by size and time. Nuclear Instruments & Methods in Physics Research B, 2002, 189, 284-288.	1.4	18
118	A model for phosphosilicate glass deposition via POCl <sub>3</sub> for control of phosphorus dose in Si. Journal of Applied Physics, 2012, 112, 124912.	2.5	18
119	Three-dimensional chemical imaging of embedded nanoparticles using atom probe tomography. Nanotechnology, 2012, 23, 215704.	2.6	18
120	Ice formation on nitric acid-coated dust particles: Laboratory and modeling studies. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7682-7698.	3.3	18
121	Effects of crystallographic properties on the ice nucleation properties of volcanic ash particles. Geophysical Research Letters, 2015, 42, 3048-3055.	4.0	18
122	Coupled Lattice Polarization and Ferromagnetism in Multiferroic NiTiO <sub>3</sub> Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 21879-21890.	8.0	18
123	Synthesis of room-temperature ferromagnetic Cr-doped TiO <sub>2</sub> (1 1 0) rutile single crystals using ion implantation. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 198-200.	1.4	17
124	Coexistence of weak ferromagnetism and polar lattice distortion in epitaxial NiTiO <sub>3</sub> thin films of the LiNbO <sub>3</sub> -type structure. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 030603.	1.2	17
125	Controlled optical properties via chemical composition tuning in molybdenum-incorporated $\text{In}_2\text{Ga}_2\text{O}_3$ nanocrystalline films. Chemical Physics Letters, 2017, 684, 363-367.	2.6	17
126	Calculation of ion-scattering yields from simulated intermetallic surfaces: Ni-Al(110). Physical Review B, 1993, 48, 18292-18295.	3.2	16



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127	Using CrAlN Multilayer Coatings to Improve Oxidation Resistance of Steel Interconnects for Solid Oxide Fuel Cell Stacks. Journal of Materials Engineering and Performance, 2004, 13, 295-302.	2.5	16
128	Microstructure of Co-doped TiO <sub>2</sub> (110) rutile by ion implantation. Journal of Applied Physics, 2005, 97, 073502.	2.5	16
129	Magnetic properties of epitaxial Co-doped anatase TiO <sub>2</sub> thin films with excellent structural quality. Journal of Vacuum Science & Technology B, 2006, 24, 2012.	1.3	16
130	In situ x-ray photoelectron spectroscopy analysis of electrochemical interfaces in battery: Recent advances and remaining challenges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	16
131	Non-linear damage accumulation in Au-irradiated SrTiO <sub>3</sub> . Nuclear Instruments & Methods in Physics Research B, 2006, 251, 127-132.	1.4	15
132	Distribution of oxygen vacancies and gadolinium dopants in ZrO <sub>2</sub> -CeO <sub>2</sub> multi-layer films grown on Al <sub>2</sub> O <sub>3</sub> . Solid State Ionics, 2006, 177, 1299-1306.	2.7	15
133	Growth and characterization of highly oriented gadolinia-doped ceria (111) thin films on zirconia (111)/sapphire (0001) substrates. Thin Solid Films, 2008, 516, 6088-6094.	1.8	15
134	Growth and Characterization of Barium Oxide Nanoclusters on YSZ(111). Journal of Physical Chemistry C, 2009, 113, 14324-14328.	3.1	15
135	Application of secondary neutral mass spectrometry in low-energy sputtering yield measurements. Nuclear Instruments & Methods in Physics Research B, 1997, 129, 123-129.	3.2	15
136	Carbon analysis using energetic ion beams. Nuclear Instruments & Methods in Physics Research B, 2004, 222, 538-546.	1.4	14
137	Near-edge x-ray absorption fine-structure study of ion-beam-induced phase transformation in Gd <sub>2</sub> (Ti <sub>1-x</sub> Y <sub>x</sub> Zr) <sub>2</sub> O <sub>7</sub> . Journal of Applied Physics, 2005, 97, 033518.	1.4	14
138	Metalorganic chemical vapor deposition of carbon-free ZnO using the bis(2,2,6,6-tetramethyl-3,5-heptanedionato)zinc precursor. Journal of Materials Research, 2007, 22, 1230-1234.	2.5	14
139	Growth-rate induced epitaxial orientation of CeO <sub>2</sub> on Al <sub>2</sub> O <sub>3</sub> (0001). Applied Physics Letters, 2009, 94, 204101.	2.6	14
140	Thickness Dependency of Thin-Film Samaria-Doped Ceria for Oxygen Sensing. IEEE Sensors Journal, 2011, 11, 217-224.	3.3	14
141	Alpha Radiation Effects on Silicon Oxynitride Waveguides. ACS Photonics, 2016, 3, 1569-1574.	4.7	14
142	Electronic Structure, Chemical Bonding, and Electrocatalytic Activity of Ba(Fe <sub>0.7</sub> Ta <sub>0.3</sub> )O <sub>3</sub> Compounds. ACS Applied Energy Materials, 2021, 4, 1313-1322.	6.6	14
143	Conductivity of Oriented Samaria-Doped Ceria Thin Films Grown by Oxygen-Plasma-Assisted Molecular Beam Epitaxy. Electrochemical and Solid-State Letters, 2008, 11, B76.	5.1	14
144		2.2	13

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145	Microstructure and ionic conductivity of alternating-multilayer structured Gd-doped ceria and zirconia thin films. <i>Journal of Materials Science</i> , 2009, 44, 2021-2026.	3.7	13
146	Are cluster ion analysis beams good choices for hydrogen depth profiling using time-of-flight secondary ion mass spectrometry?. <i>Surface and Interface Analysis</i> , 2012, 44, 89-93.	1.8	13
147	Role of Polysulfide Anions in Solid-Electrolyte Interphase Formation at the Lithium Metal Surface in Li-S Batteries. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 9360-9367.	4.6	13
148	Thermal stability and oxidation resistance of TiCrAlYO coatings on SS430 for solid oxide fuel cell interconnect applications. <i>Surface and Coatings Technology</i> , 2008, 202, 4820-4824.	4.8	12
149	The pulmonary inflammatory response to multiwalled carbon nanotubes is influenced by gender and glutathione synthesis. <i>Redox Biology</i> , 2016, 9, 264-275.	9.0	12
150	Investigation of the Ligand-Nanoparticle Interface: A Cryogenic Approach for Preserving Surface Chemistry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3582-3590.	3.1	12
151	Sputtering investigation of boron nitride with secondary ion and secondary neutral mass spectrometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 243-247.	2.1	11
152	High energy ion beam studies of ion exchange in a Na <sub>2</sub> O-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> glass. <i>Journal of Applied Physics</i> , 2002, 91, 1910-1920.	2.5	11
153	Precipitation of Au nanoclusters in SrTiO <sub>3</sub> by ion implantation. <i>Journal of Applied Physics</i> , 2004, 95, 5060-5068.	2.5	11
154	Electronic and magnetic properties of epitaxial perovskite SrCrO <sub>3</sub> ( $\delta$ ). <i>Journal of Physics Condensed Matter</i> , 2015, 27, 245605.	1.8	11
155	Epitaxial Fe/Y <sub>2</sub> O <sub>3</sub> interfaces as a model system for oxide-dispersion-strengthened ferritic alloys. <i>Journal of Nuclear Materials</i> , 2015, 457, 352-361.	2.7	11
156	Lattice damage and compositional changes in Xe ion irradiated InGa <sub>1-x</sub> N ( $x = 0.0$ to $1.0$ ). <i>Journal of Applied Physics</i> , 2004, 96, 5756-5760.	2.5	11
157	Oxygen analysis using energetic ion beams. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 207, 453-461.	1.4	10
158	Distinguishability of oxygen desorption from the surface region with mobility dominant effects in nanocrystalline ceria films. <i>Journal of Applied Physics</i> , 2004, 96, 5756-5760.	2.5	10
159	Synthesis and Characterization of Bulk, Vitreous Cadmium Germanium Arsenide. <i>Journal of the American Ceramic Society</i> , 2009, 92, 1236-1243.	3.8	10
160	High-pressure hydrogen materials compatibility of piezoelectric films. <i>Applied Physics Letters</i> , 2010, 97, 221911.	3.3	10
161	Pb nanowire formation on Al/lead zirconate titanate surfaces in high-pressure hydrogen. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	10
162	Structural perturbations of epitaxial $\text{Fe}_{1-x}\text{V}_x\text{O}_3$ thin films driven by excess oxygen near the surface. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	10

#	ARTICLE	IF	CITATIONS
163	Nanoscale phase separation in epitaxial Cr-Mo and Cr-V alloy thin films studied using atom probe tomography: Comparison of experiments and simulation. Journal of Applied Physics, 2014, 116, .	2.5	10
164	Composition and interface analysis of InGaN/GaN multiquantum-wells on GaN substrates using atom probe tomography. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2014, 32, 051209.	1.2	10
165	Radiation Tolerant Interfaces: Influence of Local Stoichiometry at the Misfit Dislocation on Radiation Damage Resistance of Metal/Oxide Interfaces. Advanced Materials Interfaces, 2017, 4, 1700037.	3.7	10
166	Impact of Ti Incorporation on Hydroxylation and Wetting of Fe <sub>3</sub> O <sub>4</sub> . Journal of Physical Chemistry C, 2017, 121, 19288-19295.	3.1	10
167	Wide-Field Dynamic Magnetic Microscopy Using Double-Double Quantum Driving of a Diamond Defect Ensemble. Physical Review Applied, 2021, 15, .	3.8	10
168	Room temperature growth of thin Pd films on Al(110) surfaces. Surface Science, 1997, 373, 221-229.	1.9	9
169	Channeling study of lattice disorder and gold implants in gallium nitride. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 509-513.	1.4	9
170	Ceria Incorporation into YSZ Columnar Nanostructures. Electrochemical and Solid-State Letters, 2005, 8, A525.	2.2	9
171	Misfit dislocations at the single-crystal Fe <sub>2</sub> O <sub>3</sub> •Al <sub>2</sub> O <sub>3</sub> interface. Physical Review B, 2005, 72, .	3.2	9
172	Atomic level imaging of Au nanocluster dispersed in TiO <sub>2</sub> and SrTiO <sub>3</sub> . Nuclear Instruments & Methods in Physics Research B, 2006, 242, 380-382.	1.4	9
173	Integrated experimental and modeling study of ionic conductivity of scandia-stabilized zirconia thin films. Solid State Ionics, 2010, 181, 367-371.	2.7	9
174	Carbon/Ternary Alloy/Carbon Optical Stack on Mylar as an Optical Data Storage Medium to Potentially Replace Magnetic Tape. ACS Applied Materials & Interfaces, 2013, 5, 8407-8413.	8.0	9
175	Radiation damage by light- and heavy-ion bombardment of single-crystal LiNbO <sub>3</sub> . Optical Materials Express, 2015, 5, 1071.	3.0	9
176	Graphene Oxide as a Pb(II) Separation Medium: Has Part of the Story Been Overlooked?. JACS Au, 2021, 1, 766-776.	7.9	9
177	Direct imaging of quantum antidots in MgO dispersed with Au nanoclusters. Applied Physics Letters, 2005, 87, 153104.	3.3	8
178	In situ ion scattering and x-ray photoelectron spectroscopy studies of stability and nanoscale oxidation of single crystal (100) InAs. Applied Physics Letters, 2007, 90, 203109.	3.3	8
179	Defect structure of epitaxial Cr <sub>x</sub> V <sub>1-x</sub> thin films on MgO(001). Thin Solid Films, 2014, 550, 1-9.	1.8	8
180	Asymmetry of radiation damage properties in Al <sup>3+</sup> /Ti nanolayers. Journal of Nuclear Materials, 2014, 445, 261-271.	2.7	8

#	ARTICLE	IF	CITATIONS
181	Microstructure tuning facilitated photo-efficiency enhancement and environmental benign nature of HfO <sub>2</sub> /Mo/HfO <sub>2</sub> multilayer films. <i>Solar Energy</i> , 2018, 166, 146-158.	6.1	8
182	Accumulation of ion beam induced disorder in strontium titanate. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 206, 162-165.	1.4	7
183	Using MeV ion backscattering/channeling and MC simulations to characterize the composition and structure of buried metal-metal interfaces. <i>Applied Surface Science</i> , 2003, 219, 28-38.	6.1	7
184	Atomic Resolution Imaging of Au Nanocluster Dispersed in TiO <sub>2</sub> , SrTiO <sub>3</sub> , and MgO. <i>Journal of the American Ceramic Society</i> , 2005, 88, 3184-3191.	3.8	7
185	Nitrogen analysis using energetic ion beams. <i>Surface and Interface Analysis</i> , 2005, 37, 374-378.	1.8	7
186	Applications of high energy ion beam techniques in environmental science: Investigation associated with glass and ceramic waste forms. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2006, 150, 195-207.	1.7	7
187	Morphology, orientation relationship, and stability analysis of Cu <sub>2</sub> O nanoclusters on SrTiO <sub>3</sub> (100). <i>Applied Physics Letters</i> , 2009, 95, 053111.	3.3	7
188	Surface science analysis of GaAs photocathodes following sustained electron beam delivery. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2012, 15, .	1.8	7
189	Effects of cation stoichiometry on electronic and structural properties of LaNiO <sub>3</sub> . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015, 33, .	2.1	7
190	Strain-dependence of the structure and ferroic properties of epitaxial Ni <sub>1-x</sub> Ti <sub>1-y</sub> O <sub>3</sub> thin films grown on sapphire substrates. <i>Thin Solid Films</i> , 2015, 578, 113-123.	1.8	7
191	Structure-Property Correlation of Hierarchically Porous Carbons for Fluorocarbon Adsorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 54266-54273.	8.0	7
192	Growth of thin Ti films on Al(110) surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993, 11, 1982-1986.	2.1	6
193	Direct observation of substitutional Au atoms in SrTiO <sub>3</sub> . <i>Physical Review B</i> , 2004, 70, .	3.2	6
194	NRA and ERDA investigation of helium retention in SiC as a function of irradiation and annealing. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2004, 219-220, 631-635.	1.4	6
195	Synthesis and characterization of cobalt silicide films on silicon. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 249, 532-535.	1.4	6
196	Nucleation and Growth of MOCVD Grown (Cr, Zn)O Films. <i>Journal of the Electrochemical Society</i> , 2007, 154, D134.	2.9	6
197	Structural characterization of epitaxial Cr <sub>1-x</sub> Mo <sub>1-y</sub> alloy thin films. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 095001.	1.8	6
198	Structure and radiation damage behavior of epitaxial Cr Mo <sub>1-y</sub> alloy thin films on MgO. <i>Journal of Nuclear Materials</i> , 2013, 437, 55-61.	2.7	6

#	ARTICLE	IF	CITATIONS
199	Photothermal Superheating of Water with Ion-Implanted Silicon Nanowires. <i>Advanced Optical Materials</i> , 2015, 3, 1362-1367.	7.3	6
200	Growth and surface modification of LaFeO <sub>3</sub> thin films induced by reductive annealing. <i>Applied Surface Science</i> , 2015, 330, 309-315.	6.1	6
201	Structure, Magnetism, and the Interaction of Water with Ti-Doped Fe <sub>3</sub> O <sub>4</sub> Surfaces. <i>Langmuir</i> , 2019, 35, 13872-13879.	3.5	6
202	Tuning the Charge and Hydrophobicity of Graphene Oxide Membranes by Functionalization with Ionic Liquids at Epoxide Sites. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 19031-19042.	8.0	6
203	Deuterium channeling study of disorder in Al <sup>2+</sup> -implanted 6H-SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2002, 190, 636-640.	1.4	5
204	Self-assembling of nanocavities in TiO <sub>2</sub> dispersed with Au nanoclusters. <i>Physical Review B</i> , 2005, 72, .	3.2	5
205	Direct measurement of oxygen incorporation into thin film oxides at room temperature upon ultraviolet photon irradiation. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	5
206	Microstructure, chemical inhomogeneity, and electronic properties of tin-incorporated Ga <sub>2</sub> O <sub>3</sub> compounds. <i>Journal of Materials Science</i> , 2022, 57, 11170-11188.	3.7	5
207	Channeling Studies of CeO <sub>2</sub> and Ce <sub>1-x</sub> Zr <sub>x</sub> O <sub>2</sub> Films on Yttria-Stabilized ZrO <sub>2</sub> (111). <i>Materials Research Society Symposia Proceedings</i> , 2000, 654, 261.	0.1	4
208	Hydrogen damage interactions in yttria-stabilized zirconia. <i>Journal of Nuclear Materials</i> , 2001, 289, 128-135.	2.7	4
209	Annealing behavior of Al-implantation-induced disorder in 4H-SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2004, 219-220, 647-651.	1.4	4
210	Structural studies of titanium oxide films deposited with metalorganic decomposition. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 249, 540-543.	1.4	4
211	Correlation among Channeling, Morphological, and Microstructural Properties in Epitaxial CeO <sub>2</sub> Films. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, J17.	2.2	4
212	Temperature response of C <sup>13</sup> atoms in amorphized 6H-SiC. <i>Applied Physics Letters</i> , 2006, 89, 261902.	3.3	4
213	Fluorine doping in dilute magnetic semiconductor Sn <sup>1-x</sup> Fe <sub>x</sub> O <sub>2</sub> . <i>Journal of Materials Science: Materials in Electronics</i> , 2007, 18, 1151-1155.	2.2	4
214	Using C <sub>60</sub> sputtering to improve detection limit of nitrogen in zinc oxide. <i>Surface and Interface Analysis</i> , 2011, 43, 661-663.	1.8	4
215	Growth of Transition Metal Films on Al(110) Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 1995, 399, 135.	0.1	3
216	Interface characteristics of iso-structural thin film and substrate pairs. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 207, 1-9.	1.4	3

#	ARTICLE	IF	CITATIONS
217	Formation of zinc oxide films using submicron zinc particle dispersions. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, 041805.	1.2	3
218	Microstructure and thermal oxidation behavior of yttria-stabilized hafnia nanostructured coatings deposited on alumina. Surface and Coatings Technology, 2013, 236, 142-148.	4.8	3
219	Ag out-surface diffusion in crystalline SiC with an effective SiO <sub>2</sub> diffusion barrier. Journal of Nuclear Materials, 2015, 464, 294-298.	2.7	3
220	Evolution of metastable phases during Mg metal corrosion: An <i>in situ</i> cryogenic x-ray photoelectron spectroscopy study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	3
221	Crosslinked Polyethyleneimine Gel Polymer Interface to Improve Cycling Stability of RFBs. Energy Material Advances, 2022, 2022, .	11.0	3
222	Designing Porous Ion Emitters for Thermal Ionization Mass Spectrometry: Evaluating Metal-Organic Frameworks. Analytical Chemistry, 2022, 94, 2072-2077.	6.5	3
223	Ion-beam synthesis of epitaxial Au nanocrystals in MgO. Journal of Materials Research, 2004, 19, 1311-1314.	2.6	2
224	Quantitative Determination of Deuterium Atom Concentration in Zinc Oxide Thin Films by Time-of-Flight Secondary Ion Mass Spectrometry. , 2009, .		2
225	The Blind Men and the Elephant as a Metaphor for Surface Analysis, as Applied to the Preparation and Analysis of New, Highly Stable Materials for Separations Science. Microscopy and Microanalysis, 2010, 16, 410-411.	0.4	2
226	Preferential sputtering of heavy isotopes at low incident ion energies. Surface Science, 1997, 392, L11-L14.	1.9	1
227	On the preferential emission of heavy isotopes in sputtering. Vacuum, 1999, 52, 353-357.	3.5	1
228	Investigation of alkali ion exchange processes in waste glasses using Rutherford backscattering spectrometry and nuclear reaction analysis. AIP Conference Proceedings, 2001, .	0.4	1
229	Influence of multiple interfaces on oxygen ionic conductivity in gadolinia-doped single crystal oxide electrolyte multi-layer nano films. , 0, .		1
230	Microstructure of Precipitated Au Nanoclusters in TiO <sub>2</sub> . Materials Research Society Symposia Proceedings, 2003, 788, 3451.	0.1	1
231	RBS, TEM and SEM Characterization of Gold Nanoclusters in TiO <sub>2</sub> (110). Materials Research Society Symposia Proceedings, 2003, 792, 139.	0.1	1
232	Study of hydrogen stability in low-k dielectric films by ion beam techniques. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 335-338.	1.4	1
233	Hydrogen behavior in Mg <sup>+</sup> -implanted graphite. Journal of Materials Research, 2006, 21, 811-815.	2.6	1
234	Synthesis and characterization of compositionally graded Si <sub>1-x</sub> Gex layers on Si substrate. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 723-726.	1.4	1

#	ARTICLE	IF	CITATIONS
235	PIXE ANALYSIS ON AN ANCIENT SCROLL SAMPLE. International Journal of PIXE, 2008, 18, 279-284.	0.4	1
236	Structural environment of nitrogen in n-doped rutile TiO <sub>2</sub> (110). Proceedings of SPIE, 2010, , .	0.8	1
237	Effect of Interface Structure on the Hydrophobicity, Mechanical and Optical Properties of HfO <sub>2</sub> /Mo/HfO <sub>2</sub> Multilayer Films. Jom, 2019, 71, 3711-3719.	1.9	1
238	Oxygen Ion Conductance in Epitaxially Grown Thin Film Electrolytes. Ceramic Engineering and Science Proceedings, 0, , 229-240.	0.1	1
239	Comparison of Analytical Techniques for Analysis of Arsenic Adsorbed on Carbon. Water Quality Research Journal of Canada, 2006, 41, 185-189.	2.7	1
240	Ion beam induced adhesion in Al/diamond bilayer. Nuclear Instruments & Methods in Physics Research B, 1991, 59-60, 1372-1373.	1.4	0
241	RBS studies of solid-solid interfaces: Transition metals on aluminum. , 1997, , .		0
242	Simultaneous analysis of multiple elements by combined ion-beam methods. AIP Conference Proceedings, 2001, , .	0.4	0
243	Hrtem Characterization of Interface Between ISO-Structural Thin Solid Film and Substrate. Microscopy and Microanalysis, 2002, 8, 1160-1161.	0.4	0
244	Energy and mass dependence of isotopic enrichment in sputtering. Applied Physics A: Materials Science and Processing, 2003, 76, 1093-1097.	2.3	0
245	Oxygen diffusion in nanocrystalline CeO <sub>2</sub> . , 0, , .		0
246	Oxygen Diffusivity and Defect Transport in Pure and Yb Doped Nano-crystalline Ceria. Materials Research Society Symposia Proceedings, 2003, 788, 531.	0.1	0
247	Damage Evolution and Annealing of Au-Irradiated Samarium Titanate Pyrochlore. Materials Research Society Symposia Proceedings, 2003, 792, 227.	0.1	0
248	Characterization of ferromagnetic Co-implanted rutile TiO <sub>2</sub> /(110). , 0, , .		0
249	Quantification of arsenic in activated carbon using particle induced X-ray emission. Nuclear Instruments & Methods in Physics Research B, 2006, 251, 191-196.	1.4	0
250	Quantification of dopant concentrations in dilute magnetic semiconductors using ion beam techniques. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 402-405.	1.4	0
251	MULTI-TECHNIQUE APPROACH TO MEASURE SIZE AND TIME RESOLVED ATMOSPHERIC AND RADIONUCLIDE AEROSOLS. International Journal of PIXE, 2008, 18, 209-218.	0.4	0
252	Investigation of cellular interactions of nanoparticles by helium ion microscopy. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
253	Angular distribution and recoil effect for 1MeV Au+ ions through a Si3N4 thin foil. Nuclear Instruments & Methods in Physics Research B, 2014, 332, 346-350.	1.4	0