Ganpati Ramanath

List of Publications by Year
in descending order

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65 papers	2,312 citations	331259 21 h-index	214527 47 g-index
65 all docs	65 docs citations	65 times ranked	3567 citing authors

#	Article	IF	Citations
1	Epitaxial Growth of CaMnO_{3â€“y} Films on LaAlO₃(112Â¯0) by Pulsed Direct Current Reactive Magnetron Sputtering. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	3
2	Effect of disordered nanoporosity on electrical and thermal properties of layered Ca3Co4O9 films. Applied Physics Letters, 2022, 120, 061904.	1.5	5
3	Viscoelastic bandgap in multilayers of inorganicâ€“organic nanolayer interfaces. Scientific Reports, 2022, 12, .	1.6	2
4	Engineering thermoelectric and mechanical properties by nanoporosity in calcium cobaltate films from reactions of Ca(OH)₂/Co₃O₄ multilayers. Nanoscale Advances, 2022, 4, 3353-3361.	2.2	5
5	Engineering Faceted Nanoporosity by Reactions in Thin-Film Oxide Multilayers in Crystallographically Layered Calcium Cobaltate for Thermoelectrics. ACS Applied Nano Materials, 2021, 4, 9904-9911.	2.4	9
6	Multifold enhancements in thermoelectric power factor in isovalent sulfur doped bismuth antimony telluride films. Materials Research Bulletin, 2021, 142, 111426.	2.7	23
7	Copper-induced majority charge carrier reversal in bismuth telluride-based nanothermoelectrics. AIP Conference Proceedings, 2019, , .	0.3	2
8	Divalent doping-induced thermoelectric power factor increase in p-type Bi2Te3 via electronic structure tuning. Journal of Applied Physics, 2019, 125, .	1.1	11
9	Multifold improvement of thermoelectric power factor by tuning bismuth and antimony in nanostructured n-type bismuth antimony telluride thin films. Materials and Design, 2019, 163, 107549.	3.3	61
10	Frequency-tunable toughening in a polymer-metal-ceramic stack using an interfacial molecular nanolayer. Nature Communications, 2018, 9, 5249.	5.8	8
11	Civil Society-Driven Drug Policy Reform for Health and Human Welfareâ€”India. Journal of Pain and Symptom Management, 2017, 53, 518-532.	0.6	13
12	Decreasing friction during Al cold forming using a nanomolecular layer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 020605.	0.9	6
13	Pressure-induced insulator-to-metal transitions for enhancing thermoelectric power factor in bismuth telluride-based alloys. Physical Chemistry Chemical Physics, 2017, 19, 12784-12793.	1.3	23
14	Chemical bonding and nanomolecular length effects on work function at Au-organophosphonate-HfO2 interfaces. Applied Physics Letters, 2017, 110, 181604.	1.5	1
15	Molecular length effect on work function shifts at copper-organophosphonate-hafnia interfaces. Applied Physics Letters, 2017, 110, .	1.5	3
16	Multifold Electrical Conductance Enhancements at Metalâ€“Bismuth Telluride Interfaces Modified Using an Organosilane Monolayer. ACS Applied Materials & Interfaces, 2017, 9, 2001-2005.	4.0	13
17	Tailoring Al-SiO2 interfacial work function using an organophosphonate nanolayer. Applied Physics Letters, 2017, 111, .	1.5	3
18	Harnessing Topological Band Effects in Bismuth Telluride Selenide for Large Enhancements in Thermoelectric Properties through Isovalent Doping. Advanced Materials, 2016, 28, 6436-6441.	11.1	44

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19	Work function tuning at Au-HfO2 interfaces using organophosphonate monolayers. Applied Physics Letters, 2016, 108, .	1.5	11
20	Effect of molecular length on the electrical conductance across metal-alkanedithiol-Bi2Te3 interfaces. Applied Physics Letters, 2016, 109, .	1.5	5
21	Microwave synthesis of branched silver nanowires and their use as fillers for high thermal conductivity polymer composites. Nanotechnology, 2016, 27, 175601.	1.3	32
22	Interplay between bond breaking and plasticity during fracture at a nanomolecularly-modified metal-ceramic interface. Scripta Materialia, 2016, 121, 42-44.	2.6	5
23	Tailoring Electrical Transport Across Metalâ€“Thermoelectric Interfaces Using a Nanomolecular Monolayer. ACS Applied Materials & Interfaces, 2016, 8, 4275-4279.	4.0	19
24	Effects of chemical intermixing on electrical and thermal contact conductances at metallized bismuth and antimony telluride interfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	8
25	Enhanced interfacial thermal transport in pnictogen tellurides metallized with a lead-free solder alloy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	5
26	Multifold Increases in Thermal Conductivity of Polymer Nanocomposites through Microwave Welding of Metal Nanowire Fillers. Advanced Materials Interfaces, 2015, 2, 1500186.	1.9	33
27	Tuning of noble metal work function with organophosphonate nanolayers. Applied Physics Letters, 2014, 105, .	1.5	10
28	Softening in silver-nanowire-filled polydimethylsiloxane nanocomposites. Applied Physics Letters, 2014, 105, 013110.	1.5	8
29	Multifold Seebeck increase in RuO2 films by quantum-guided lanthanide dilute alloying. Applied Physics Letters, 2014, 104, 053903.	1.5	10
30	Heavy element doping for enhancing thermoelectric properties of nanostructured zinc oxide. RSC Advances, 2014, 4, 6363.	1.7	61
31	Interfacial thermal conductance-rheology nexus in metal-contacted nanocomposites. Applied Physics Letters, 2013, 103, .	1.5	5
32	Bonding-induced thermal conductance enhancement at inorganic heterointerfaces usingÂnanomolecular monolayers. Nature Materials, 2013, 12, 118-122.	13.3	223
33	Nanowire-filled polymer composites with ultrahigh thermal conductivity. Applied Physics Letters, 2013, 102, .	1.5	74
34	Gating heat transport by manipulating convection in a magnetic nanofluid. Applied Physics Letters, 2013, 102, .	1.5	6
35	Interface engineering through atomic dopants in HfO2-based gate stacks. Journal of Applied Physics, 2013, 114, .	1.1	14
36	Gold-titania interface toughening and thermal conductance enhancement using an organophosphonate nanolayer. Applied Physics Letters, 2013, 102, 201605.	1.5	15

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37	Environment-dependent interfacial strength using first principles thermodynamics: The example of the Pt-HfO2 interface. Journal of Applied Physics, 2013, 114, 163503.	1.1	6
38	Seebeck and Figure of Merit Enhancement in Nanostructured Antimony Telluride by Antisite Defect Suppression through Sulfur Doping. Nano Letters, 2012, 12, 4523-4529.	4.5	80
39	Lattice thermal conductivity diminution and high thermoelectric power factor retention in nanoporous macroassemblies of sulfur-doped bismuth telluride nanocrystals. Applied Physics Letters, 2012, 100, .	1.5	32
40	A new class of doped nanobulk high-figure-of-merit thermoelectrics by scalable bottom-up assembly. Nature Materials, 2012, 11, 233-240.	13.3	462
41	Dye-sensitized solar cells using branched titania nanotube films. Thin Solid Films, 2012, 520, 2764-2768.	0.8	4
42	Experimental Investigation of Magnetically-Induced Thermal Conductance Variations in a Ferromagnetic Nanofluid. , 2011, , .		0
43	Al-Doped Zinc Oxide Nanocomposites with Enhanced Thermoelectric Properties. Nano Letters, 2011, 11, 4337-4342.	4.5	405
44	Branched titania nanotubes through anodization voltage control. Thin Solid Films, 2011, 520, 235-238.	0.8	19
45	Structurally stabilized olivine lithium phosphate cathodes with enhanced electrochemical properties through Fe doping. Energy and Environmental Science, 2011, 4, 4978.	15.6	59
46	Synthesis and Thermoelectric Properties of Thin Film Assemblies of Bismuth Telluride Nanopolyhedra. Chemistry of Materials, 2011, 23, 3029-3031.	3.2	18
47	Kinetics of titania nanotube formation by anodization of titanium films. Thin Solid Films, 2011, 519, 1821-1824.	0.8	19
48	Factorial toughening at microcorrugated metal-ceramic interfaces. Applied Physics Letters, 2011, 99, 133101.	1.5	3
49	Effects of molecular functionalization sequence on mesoporous silica film properties. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 010602.	0.6	3
50	Atomistic fracture energy partitioning at a metal-ceramic interface using a nanomolecular monolayer. Physical Review B, 2011, 83, .	1.1	8
51	Atomistic mechanisms of moisture-induced fracture at copper-silica interfaces. Applied Physics Letters, 2011, 99, 133103.	1.5	8
52	A noncontact thermal microprobe for local thermal conductivity measurement. Review of Scientific Instruments, 2011, 82, 024902.	0.6	32
53	Threshold conductivity switching in sulfurized antimony selenide nanowires. Applied Physics Letters, 2011, 99, .	1.5	13
54	Hydrophobic fluoroalkylsilane nanolayers for inhibiting copper diffusion into silica. Applied Physics Letters, 2010, 96, 143121.	1.5	8

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55	Metalâ€“dielectric interface toughening by molecular nanolayer decomposition. Journal of Applied Physics, 2010, 108, 034317.	1.1	9
56	A microprobe technique for simultaneously measuring thermal conductivity and Seebeck coefficient of thin films. Applied Physics Letters, 2010, 96, .	1.5	55
57	Microsphere Bouquets of Bismuth Telluride Nanoplates: Room-Temperature Synthesis and Thermoelectric Properties. Journal of Physical Chemistry C, 2010, 114, 1796-1799.	1.5	36
58	High Electrical Conductivity Antimony Selenide Nanocrystals and Assemblies. Nano Letters, 2010, 10, 4417-4422.	4.5	87
59	Nanoscale Heterostructures with Molecular-Scale Single-Crystal Metal Wires. Journal of the American Chemical Society, 2010, 132, 20-21.	6.6	34
60	Selective Deposition of a Cross-Linked Low-Permittivity Polycarbosilane on Copper. ACS Applied Materials & Interfaces, 2010, 2, 2180-2184.	4.0	9
61	Branched Copper Nanocrystal Corals by Room-Temperature Galvanic Displacement. Crystal Growth and Design, 2010, 10, 3925-3928.	1.4	9
62	Metalâ^'Dielectric Interface Toughening by Catalyzed Ring Opening in a Monolayer. Journal of Physical Chemistry Letters, 2010, 1, 336-340.	2.1	15
63	Seebeck Tuning in Chalcogenide Nanoplate Assemblies by Nanoscale Heterostructuring. ACS Nano, 2010, 4, 5055-5060.	7.3	65
64	Ring-Opening-Induced Toughening of a Low-Permittivity Polymerâ^'Metal Interface. ACS Applied Materials & Interfaces, 2010, 2, 1275-1280.	4.0	10
65	Surface diffusion driven nanoshell formation by controlled sintering of mesoporous nanoparticle aggregates. Nanoscale, 2010, 2, 1423.	2.8	25