

Ganesh Balasubramanian

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

2,159
citations

236925

25
h-index

265206

42
g-index

100
all docs

100
docs citations

100
times ranked

2458
citing authors

#	ARTICLE	IF	CITATIONS
19	Low energy atomic traps sluggish the diffusion in compositionally complex refractory alloys. <i>Intermetallics</i> , 2021, 131, 107106.	3.9	25
20	Effect of vacancy defects on the thermal transport of $\hat{1}^2$ -Ga ₂ O ₃ . <i>Molecular Simulation</i> , 2021, 47, 1017-1021.	2.0	3
21	Predictive descriptors in machine learning and data-enabled explorations of high-entropy alloys. <i>Computational Materials Science</i> , 2021, 193, 110381.	3.0	29
22	Understanding the anisotropic phonon thermal transport through 2D $\hat{1}^2$ -siligraphene. <i>Carbon</i> , 2021, 179, 523-530.	10.3	1
23	Machine learning assisted prediction of the Young's modulus of compositionally complex alloys. <i>Scientific Reports</i> , 2021, 11, 17149.	3.3	38
24	Effect of Cooling Rate on the Phase Formation of AlCoCrFeNi High-Entropy Alloy. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 772-780.	1.4	23
25	Neural-network model for force prediction in multi-principal-element alloys. <i>Computational Materials Science</i> , 2021, 198, 110693.	3.0	2
26	Pseudoelastic deformation in Mo-based refractory multi-principal element alloys. <i>Acta Materialia</i> , 2021, 220, 117299.	7.9	11
27	Effect of heterostructure engineering on electronic structure and transport properties of two-dimensional halide perovskites. <i>Computational Materials Science</i> , 2021, 200, 110823.	3.0	10
28	Towards Improving the Efficiency of Organic Solar Cells by Coarse-Grained Atomistic Modeling of Processing Dependent Morphologies. <i>Computing in Science and Engineering</i> , 2021, 23, 48-55.	1.2	2
29	Accelerating computational modeling and design of high-entropy alloys. <i>Nature Computational Science</i> , 2021, 1, 54-61.	8.0	44
30	Scalable Adaptive Batch Sampling in Simulation-Based Design With Heteroscedastic Noise. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	2.9	7
31	Examining oxidation in $\hat{1}^2$ -NiAl and $\hat{1}^2$ -NiAl+Hf alloys by stochastic cellular automata simulations. <i>Npj Materials Degradation</i> , 2021, 5, .	5.8	6
32	Direct Observations of Uniform Bulk Heterojunctions and the Energy Level Alignments in Nonfullerene Organic Photovoltaic Active Layers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56430-56437.	8.0	0
33	Elongated Nanodomains and Molecular Intermixing Induced Doping in Organic Photovoltaic Active Layers with Electric Field Treatment. <i>ACS Applied Polymer Materials</i> , 2020, 2, 335-341.	4.4	3
34	Understanding the Extremely Poor Lattice Thermal Transport in Chalcogenide Perovskite BaZrS ₃ . <i>ACS Applied Energy Materials</i> , 2020, 3, 1139-1144.	5.1	23
35	A novel ceramic derived processing route for Multi-Principal Element Alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 793, 139892.	5.6	11
36	Elasto-morphology of P3HT:PCBM bulk heterojunction organic solar cells. <i>Soft Matter</i> , 2020, 16, 6743-6751.	2.7	14

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37	Investigating blend morphology of P3HT:PCBM bulk heterojunction solar cells by classical atomistic simulations – Progress and prospects. <i>Soft Materials</i> , 2020, 18, 163-176.	1.7	9
38	Designing anisotropic microstructures with spectral density function. <i>Computational Materials Science</i> , 2020, 179, 109559.	3.0	20
39	An Environmentally Stable and Lead-Free Chalcogenide Perovskite. <i>Advanced Functional Materials</i> , 2020, 30, 2001387.	14.9	52
40	Machine learned feature identification for predicting phase and Young's modulus of low-, medium- and high-entropy alloys. <i>Scripta Materialia</i> , 2020, 185, 152-158.	5.2	102
41	Comparing the Properties of Polyethylene Terephthalate (PET) Plastic Bricks to Conventional Concrete Masonry Units. , 2020, , .		2
42	Scalable Objective-Driven Batch Sampling in Simulation-Based Design for Models With Heteroscedastic Noise. , 2020, , .		2
43	Transient evaporation of water thin film over nanostructured graphene. <i>Applied Surface Science</i> , 2019, 495, 143545.	6.1	4
44	Doping and Anisotropy-Dependent Electronic Transport in Chalcogenide Perovskite CaZrSe_3 for High Thermoelectric Efficiency. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900060.	2.8	14
45	Predicting mode-dependent phonon thermal conductivity of silicon nanoparticle using Boltzmann transport equation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 2761-2764.	2.1	3
46	Effect of polydispersity on the bulk-heterojunction morphology of P3HT:PCBM solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 895-903.	2.1	20
47	Surface oxidation mechanism of a refractory high-entropy alloy. <i>Npj Materials Degradation</i> , 2019, 3, .	5.8	42
48	Solution Processing Dependent Bulk Heterojunction Nanomorphology of P3HT/PCBM Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17056-17067.	8.0	25
49	Community Approaches To Recycling Plastics. , 2019, , .		2
50	Ultralow lattice thermal conductivity of chalcogenide perovskite CaZrSe_3 contributes to high thermoelectric figure of merit. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	31
51	Force spectroscopy of the thrombin-aptamer interaction: Comparison between AFM experiments and molecular dynamics simulations. <i>Applied Surface Science</i> , 2019, 475, 462-472.	6.1	6
52	Tuning phase stability and short-range order through Al doping in $(\text{CoCrFeMn})_{100-x}\text{Al}_x$ high-entropy alloys. <i>Physical Review Materials</i> , 2019, 3, .	2.4	16
53	Reduced Thermal Transport in the Graphene/ MoS_2 /Graphene Heterostructure: A Comparison with Freestanding Monolayers. <i>Langmuir</i> , 2018, 34, 3326-3335.	3.5	25
54	Design of high-strength refractory complex solid-solution alloys. <i>Npj Computational Materials</i> , 2018, 4, .	8.7	56

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55	A Spectral Density Function Approach for Design of Organic Photovoltaic Cells. , 2018, , .		5
56	Composition and processing dependent miscibility of P3HT and PCBM in organic solar cells by coarse-grained molecular simulations. Computational Materials Science, 2018, 155, 112-115.	3.0	21
57	A Spectral Density Function Approach for Active Layer Design of Organic Photovoltaic Cells. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	20
58	Cuckoo searching optimal composition of multicomponent alloys by molecular simulations. Scripta Materialia, 2017, 130, 292-296.	5.2	23
59	Aptamer based electrostatic-stimuli responsive surfaces for on-demand binding/unbinding of a specific ligand. Journal of Materials Chemistry B, 2017, 5, 3675-3685.	5.8	13
60	Engineering band gap and electronic transport in organic-inorganic halide perovskites by superlattices. Nanoscale, 2017, 9, 8600-8607.	5.6	26
61	Optimizing isotope substitution in graphene for thermal conductivity minimization by genetic algorithm driven molecular simulations. Applied Physics Letters, 2017, 110, 133107.	3.3	6
62	Dislocation dynamics in Al _{0.1} CoCrFeNi high-entropy alloy under tensile loading. Intermetallics, 2017, 91, 31-34.	3.9	59
63	Superhydrophobic inkjet printed flexible graphene circuits via direct-pulsed laser writing. Nanoscale, 2017, 9, 19058-19065.	5.6	29
64	Impeding phonon transport through superlattices of organic-inorganic halide perovskites. RSC Advances, 2017, 7, 37015-37020.	3.6	41
65	Crystallization kinetics in Al _x CrCoFeNi (0 ≤ x ≤ 40) high-entropy alloys. Scripta Materialia, 2017, 141, 54-57.	5.2	42
66	Effect of temperature and graphite particle fillers on thermal conductivity and viscosity of phase change material n-eicosane. International Journal of Heat and Mass Transfer, 2017, 114, 318-323.	4.8	50
67	Controlling the aqueous solubility of PNIPAM with hydrophobic molecular units. Computational Materials Science, 2017, 126, 191-203.	3.0	37
68	Thermal conductivity reduction in analogous 2D nanomaterials with isotope substitution: Graphene and silicene. Chemical Physics Letters, 2016, 650, 88-93.	2.6	13
69	Effect of metallic nanoparticle fillers on the thermal conductivity of diatomaceous earth. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 3645-3649.	2.1	1
70	Electrical Stimulus Controlled Binding/Unbinding of Human Thrombin-Aptamer Complex. Scientific Reports, 2016, 6, 37449.	3.3	12
71	Thermal conductivity of graphene with defects induced by electron beam irradiation. Nanoscale, 2016, 8, 14608-14616.	5.6	187
72	Atomistic clustering-ordering and high-strain deformation of an Al _{0.1} CrCoFeNi high-entropy alloy. Scientific Reports, 2016, 6, 31028.	3.3	81

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73	Pyrolysis reaction networks for lignin model compounds: unraveling thermal deconstruction of β -O-4 and β -5-O-4 compounds. <i>Green Chemistry</i> , 2016, 18, 1762-1773.	9.0	92
74	Viscosity of magnetite-toluene nanofluids: Dependence on temperature and nanoparticle concentration. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2015, 379, 2641-2644.	2.1	25
75	Energetic and structural properties of different conformations of merocyanine and its protonated forms. <i>Chemical Physics Letters</i> , 2015, 633, 287-291.	2.6	4
76	Influence of longitudinal isotope substitution on the thermal conductivity of carbon nanotubes: Results of nonequilibrium molecular dynamics and local density functional calculations. <i>Journal of Chemical Physics</i> , 2014, 140, 144704.	3.0	9
77	An informatics based analysis of the impact of isotope substitution on phonon modes in graphene. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	17
78	Reduced thermal conductivity of isotope substituted carbon nanomaterials: Nanotube versus graphene nanoribbon. <i>Chemical Physics Letters</i> , 2014, 599, 154-158.	2.6	22
79	Azobenzene switch with a long-lived cis-state to photocontrol the enzyme activity of a histone deacetylase-like amidohydrolase. <i>Biological Chemistry</i> , 2014, 395, 401-412.	2.5	12
80	Reducing thermal transport in electrically conducting polymers: Effects of ordered mixing of polymer chains. <i>Applied Physics Letters</i> , 2013, 102, 023109.	3.3	13
81	Modifying thermal transport in electrically conducting polymers: Effects of stretching and combining polymer chains. <i>Journal of Chemical Physics</i> , 2012, 136, 044901.	3.0	38
82	Structural and thermochemical properties of a photoresponsive spiropyran and merocyanine pair: Basis set and solvent dependence in density functional predictions. <i>Chemical Physics Letters</i> , 2012, 554, 60-66.	2.6	19
83	Shear viscosity enhancement in water-nanoparticle suspensions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 860-863.	2.1	14
84	Elastomechanical properties of resilin. <i>Soft Matter</i> , 2011, 7, 11006.	2.7	14
85	Thermal conductivity reduction through isotope substitution in nanomaterials: predictions from an analytical classical model and nonequilibrium molecular dynamics simulations. <i>Nanoscale</i> , 2011, 3, 3714.	5.6	54
86	Heat conduction across a solid-solid interface: Understanding nanoscale interfacial effects on thermal resistance. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	75
87	Release of stored thermochemical energy from dehydrated salts. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 4856-4863.	4.8	23
88	Structure of aqueous MgSO ₄ solution: Dilute to concentrated. <i>Chemical Physics Letters</i> , 2011, 508, 38-42.	2.6	20
89	Multiscale Thermal Transport Across Solid-Solid Interfaces. , 2010, , .		0
90	Dynamics of impinging nanoscale jets. <i>Chemical Physics Letters</i> , 2010, 491, 177-182.	2.6	7

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91	Modeling of thermochemical energy storage by salt hydrates. International Journal of Heat and Mass Transfer, 2010, 53, 5700-5706.	4.8	81
92	Thermochemical Energy Storage Using Salt Hydrates. , 2010, , .		1
93	A Heterogeneous Multiscale Model for Interfacial Thermal Transport. , 2010, , .		0
94	Unsteady nanoscale thermal transport across a solid-fluid interface. Journal of Applied Physics, 2008, 104, .	2.5	36
95	Interfacial Thermal Resistance in Nanoscale Heat Transfer. , 2008, , .		0
96	Pseudoelastic Deformation in Refractory (MoW) ₈₅ Zr _{7.5} (TaTi) _{7.5} High-Entropy Alloy. SSRN Electronic Journal, 0, , .	0.4	0
97	Grain-Size Effects on the Deformation in Nanocrystalline Multi-Principal Element Alloy. SSRN Electronic Journal, 0, , .	0.4	0
98	Machine Learned Feature Identification for Predicting Phase and Young's Modulus of Low-, Medium- and High-Entropy Alloys. SSRN Electronic Journal, 0, , .	0.4	0