Ganesh Balasubramanian

List of Publications by Year
in descending order

98	2,159	236612	264894
papers	citations	25 h-index	42 g-index

100	100	100	2458
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Grain-size effects on the deformation in nanocrystalline multi-principal element alloy. Materials Chemistry and Physics, 2022, 277, 125546.	2.0	14
2	Examining the effect of flake orientation on the hydrophilicity of MoS2 by molecular simulations. Chemical Physics Letters, 2022, 787, 139271.	1.2	0
3	Machine-learning-guided descriptor selection for predicting corrosion resistance in multi-principal element alloys. Npj Materials Degradation, 2022, 6, .	2.6	29
4	Vacancy formation energies and migration barriers in multi-principal element alloys. Acta Materialia, 2022, 226, 117611.	3.8	24
5	Data-Guided Feature Identification for Predicting Specific Heat of Multicomponent Alloys. Jom, 2022, 74, 1406-1413.	0.9	9
6	A Process Parameter Predictive Framework for Laser Cladding of Multi-principal Element Alloys. Additive Manufacturing Letters, 2022, , 100045.	0.9	3
7	Directed Energy Deposition of Multi-Principal Element Alloys. Frontiers in Materials, 2022, 9, .	1.2	4
8	Analyzing Security Risks in Cyber-Physical Manufacturing Systems with Actorâ€“Network Theory. Smart and Sustainable Manufacturing Systems, 2022, 6, 110-121.	0.3	0
9	Designing active layer of organic solar cells using multi-fidelity molecular simulations and spectral density function. Computational Materials Science, 2022, 211, 111491.	1.4	4
10	Comparison of laser deposition methods for the synthesis of AlxCoCrFeNi multi-principal element alloy. Journal of Materials Research and Technology, 2022, 19, 1090-1101.	2.6	4
11	Diffusion of multi-principal elements through stable Cr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.svg"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math> and Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>	1.3	6
12	Tuning bandgap and energy stability of Organic-Inorganic halide perovskites through surface engineering. Computational Materials Science, 2022, 213, 111649.	1.4	1
13	Examining the thermodynamic stability of mixed principal element oxides in AlCoCrFeNi high-entropy alloy by first-principles. Computational Materials Science, 2022, 213, 111619.	1.4	9
14	Machine learned metaheuristic optimization of the bulk heterojunction morphology in P3HT:PCBM thin films. Computational Materials Science, 2021, 187, 110119.	1.4	7
15	Examining the electron transport in chalcogenide perovskite BaZrS₃. Journal of Materials Chemistry C, 2021, 9, 3892-3900.	2.7	24
16	Transfer Learned Designer Polymers For Organic Solar Cells. Journal of Chemical Information and Modeling, 2021, 61, 134-142.	2.5	22
17	Lattice distortion as an estimator of solid solution strengthening in high-entropy alloys. Materials Characterization, 2021, 172, 110877.	1.9	69
18	Effect of oxidation on the thermal expansion of a refractory multicomponent alloy. Philosophical Magazine Letters, 2021, 101, 173-182.	0.5	4

#	Article	IF	Citations
19	Low energy atomic traps sluggardize the diffusion in compositionally complex refractory alloys. Intermetallics, 2021, 131, 107106.	1.8	25
20	Effect of vacancy defects on the thermal transport of Î²-Ga₂O₃. Molecular Simulation, 2021, 47, 1017-1021.	0.9	3
21	Predictive descriptors in machine learning and data-enabled explorations of high-entropy alloys. Computational Materials Science, 2021, 193, 110381.	1.4	29
22	Understanding the anisotropic phonon thermal transport through 2D Î²-siligraphene. Carbon, 2021, 179, 523-530.	5.4	1
23	Machine learning assisted prediction of the Youngâ€™s modulus of compositionally complex alloys. Scientific Reports, 2021, 11, 17149.	1.6	38
24	Effect of Cooling Rate on the Phase Formation of AlCoCrFeNi High-Entropy Alloy. Journal of Phase Equilibria and Diffusion, 2021, 42, 772-780.	0.5	23
25	Neural-network model for force prediction in multi-principal-element alloys. Computational Materials Science, 2021, 198, 110693.	1.4	2
26	Pseudoelastic deformation in Mo-based refractory multi-principal element alloys. Acta Materialia, 2021, 220, 117299.	3.8	11
27	Effect of heterostructure engineering on electronic structure and transport properties of two-dimensional halide perovskites. Computational Materials Science, 2021, 200, 110823.	1.4	10
28	Towards Improving the Efficiency of Organic Solar Cells by Coarse-Grained Atomistic Modeling of Processing Dependent Morphologies. Computing in Science and Engineering, 2021, 23, 48-55.	1.2	2
29	Accelerating computational modeling and design of high-entropy alloys. Nature Computational Science, 2021, 1, 54-61.	3.8	44
30	Scalable Adaptive Batch Sampling in Simulation-Based Design With Heteroscedastic Noise. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	7
31	Examining oxidation in Î²-NiAl and Î²-NiAl+Hf alloys by stochastic cellular automata simulations. Npj Materials Degradation, 2021, 5, .	2.6	6
32	Direct Observations of Uniform Bulk Heterojunctions and the Energy Level Alignments in Nonfullerene Organic Photovoltaic Active Layers. ACS Applied Materials & Interfaces, 2021, 13, 56430-56437.	4.0	0
33	Elongated Nanodomains and Molecular Intermixing Induced Doping in Organic Photovoltaic Active Layers with Electric Field Treatment. ACS Applied Polymer Materials, 2020, 2, 335-341.	2.0	3
34	Understanding the Extremely Poor Lattice Thermal Transport in Chalcogenide Perovskite BaZrS₃. ACS Applied Energy Materials, 2020, 3, 1139-1144.	2.5	23
35	A novel ceramic derived processing route for Multi-Principal Element Alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139892.	2.6	11
36	Elasto-morphology of P3HT:PCBM bulk heterojunction organic solar cells. Soft Matter, 2020, 16, 6743-6751.	1.2	14

#	Article	IF	Citations
37	Investigating blend morphology of P3HT:PCBM bulk heterojunction solar cells by classical atomistic simulations â€“ Progress and prospects. Soft Materials, 2020, 18, 163-176.	0.8	9
38	Designing anisotropic microstructures with spectral density function. Computational Materials Science, 2020, 179, 109559.	1.4	20
39	An Environmentally Stable and Leadâ€Free Chalcogenide Perovskite. Advanced Functional Materials, 2020, 30, 2001387.	7.8	52
40	Machine learned feature identification for predicting phase and Young's modulus of low-, medium- and high-entropy alloys. Scripta Materialia, 2020, 185, 152-158.	2.6	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. Applied Surface Science, 2019, 495, 143545.	3.1	4
44	Doping and Anisotropyâ€“Dependent Electronic Transport in Chalcogenide Perovskite CaZrSe₃ for High Thermoelectric Efficiency. Advanced Theory and Simulations, 2019, 2, 1900060.	1.3	14
45	Predicting mode-dependent phonon thermal conductivity of silicon nanoparticle using Boltzmann transport equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2761-2764.	0.9	3
46	Effect of polydispersity on the bulkâ€heterojunction morphology of P3HT:PCBM solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 895-903.	2.4	20
47	Surface oxidation mechanism of a refractory high-entropy alloy. Npj Materials Degradation, 2019, 3, .	2.6	42
48	Solution Processing Dependent Bulk Heterojunction Nanomorphology of P3HT/PCBM Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 17056-17067.	4.0	25
49	Community Approaches To Recycling Plastics. , 2019, , .		2
50	Ultralow lattice thermal conductivity of chalcogenide perovskite CaZrSe3 contributes to high thermoelectric figure of merit. Npj Computational Materials, 2019, 5, .	3.5	31
51	Force spectroscopy of the thrombin-aptamer interaction: Comparison between AFM experiments and molecular dynamics simulations. Applied Surface Science, 2019, 475, 462-472.	3.1	6
52	Tuning phase stability and short-range order through Al doping in (CoCrFeMn)100â^'xAlx high-entropy alloys. Physical Review Materials, 2019, 3, .	0.9	16
53	Reduced Thermal Transport in the Graphene/MoS₂/Graphene Heterostructure: A Comparison with Freestanding Monolayers. Langmuir, 2018, 34, 3326-3335.	1.6	25
54	Design of high-strength refractory complex solid-solution alloys. Npj Computational Materials, 2018, 4, .	3.5	56

#	Article	IF	Citations
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.	1.4	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, .	1.7	20
58	Cuckoo searching optimal composition of multicomponent alloys by molecular simulations. Scripta Materialia, 2017, 130, 292-296.	2.6	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.	2.9	13
60	Engineering band gap and electronic transport in organicâ€“inorganic halide perovskites by superlattices. Nanoscale, 2017, 9, 8600-8607.	2.8	26
61	Optimizing isotope substitution in graphene for thermal conductivity minimization by genetic algorithm driven molecular simulations. Applied Physics Letters, 2017, 110, 133107.	1.5	6
62	Dislocation dynamics in Al0.1CoCrFeNi high-entropy alloy under tensile loading. Intermetallics, 2017, 91, 31-34.	1.8	59
63	Superhydrophobic inkjet printed flexible graphene circuits via direct-pulsed laser writing. Nanoscale, 2017, 9, 19058-19065.	2.8	29
64	Impeding phonon transport through superlattices of organicâ€“inorganic halide perovskites. RSC Advances, 2017, 7, 37015-37020.	1.7	41
65	Crystallization kinetics in AlxCrCoFeNi (0 â‰¤ x â‰¤ 40) high-entropy alloys. Scripta Materialia, 2017, 141, 54-57.	2.6	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.	2.5	50
67	Controlling the aqueous solubility of PNIPAM with hydrophobic molecular units. Computational Materials Science, 2017, 126, 191-203.	1.4	37
68	Thermal conductivity reduction in analogous 2D nanomaterials with isotope substitution: Graphene and silicene. Chemical Physics Letters, 2016, 650, 88-93.	1.2	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.	0.9	1
70	Electrical Stimulus Controlled Binding/Unbinding of Human Thrombin-Aptamer Complex. Scientific Reports, 2016, 6, 37449.	1.6	12
71	Thermal conductivity of graphene with defects induced by electron beam irradiation. Nanoscale, 2016, 8, 14608-14616.	2.8	187
72	Atomistic clustering-ordering and high-strain deformation of an Al0.1CrCoFeNi high-entropy alloy. Scientific Reports, 2016, 6, 31028.	1.6	81

#	Article	IF	Citations
73	Pyrolysis reaction networks for lignin model compounds: unraveling thermal deconstruction of Î²-O-4 and Î±-O-4 compounds. Green Chemistry, 2016, 18, 1762-1773.	4.6	92
74	Viscosity of magnetiteâ€“toluene nanofluids: Dependence on temperature and nanoparticle concentration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2641-2644.	0.9	25
75	Energetic and structural properties of different conformations of merocyanine and its protonated forms. Chemical Physics Letters, 2015, 633, 287-291.	1.2	4
76	Influence of longitudinal isotope substitution on the thermal conductivity of carbon nanotubes: Results of nonequilibrium molecular dynamics and local density functional calculations. Journal of Chemical Physics, 2014, 140, 144704.	1.2	9
77	An informatics based analysis of the impact of isotope substitution on phonon modes in graphene. Applied Physics Letters, 2014, 104, .	1.5	17
78	Reduced thermal conductivity of isotope substituted carbon nanomaterials: Nanotube versus graphene nanoribbon. Chemical Physics Letters, 2014, 599, 154-158.	1.2	22
79	Azobenzene switch with a long-lived cis-state to photocontrol the enzyme activity of a histone deacetylase-like amidohydrolase. Biological Chemistry, 2014, 395, 401-412.	1.2	12
80	Reducing thermal transport in electrically conducting polymers: Effects of ordered mixing of polymer chains. Applied Physics Letters, 2013, 102, 023109.	1.5	13
81	Modifying thermal transport in electrically conducting polymers: Effects of stretching and combining polymer chains. Journal of Chemical Physics, 2012, 136, 044901.	1.2	38
82	Structural and thermochemical properties of a photoresponsive spiropyran and merocyanine pair: Basis set and solvent dependence in density functional predictions. Chemical Physics Letters, 2012, 554, 60-66.	1.2	19
83	Shear viscosity enhancement in waterâ€“nanoparticle suspensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 860-863.	0.9	14
84	Elastomechanical properties of resilin. Soft Matter, 2011, 7, 11006.	1.2	14
85	Thermal conductivity reduction through isotope substitution in nanomaterials: predictions from an analytical classical model and nonequilibrium molecular dynamics simulations. Nanoscale, 2011, 3, 3714.	2.8	54
86	Heat conduction across a solid-solid interface: Understanding nanoscale interfacial effects on thermal resistance. Applied Physics Letters, 2011, 99, .	1.5	75
87	Release of stored thermochemical energy from dehydrated salts. International Journal of Heat and Mass Transfer, 2011, 54, 4856-4863.	2.5	23
88	Structure of aqueous MgSO4 solution: Dilute to concentrated. Chemical Physics Letters, 2011, 508, 38-42.	1.2	20
89	Multiscale Thermal Transport Across Solid-Solid Interfaces. , 2010, , .		0
90	Dynamics of impinging nanoscale jets. Chemical Physics Letters, 2010, 491, 177-182.	1.2	7

#	Article	IF	Citations
91	Modeling of thermochemical energy storage by salt hydrates. International Journal of Heat and Mass Transfer, 2010, 53, 5700-5706.	2.5	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, .	1.1	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