

Sourav Saha

List of Publications by Year in descending order

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papers

697
citations

516710

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all docs

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docs citations

29
times ranked

588
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical Deep Learning Neural Network (HiDeNN): An artificial intelligence (AI) framework for computational science and engineering. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113452.	6.6	77
2	Effect of solid volume fraction and tilt angle in a quarter circular solar thermal collectors filled with CNT-water nanofluid. <i>International Communications in Heat and Mass Transfer</i> , 2014, 57, 79-90.	5.6	49
3	Augmentation of natural convection heat transfer in triangular shape solar collector by utilizing water based nanofluids having a corrugated bottom wall. <i>International Communications in Heat and Mass Transfer</i> , 2014, 50, 117-127.	5.6	48
4	Magnetic field effect on natural convection and entropy generation in a half-moon shaped cavity with semi-circular bottom heater having different ferrofluid inside. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 407, 412-424.	2.3	47
5	Numerical investigation of pure mixed convection in a ferrofluid-filled lid-driven cavity for different heater configurations. <i>AEJ - Alexandria Engineering Journal</i> , 2016, 55, 127-139.	6.4	46
6	Mechanistic data-driven prediction of as-built mechanical properties in metal additive manufacturing. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	43
7	Graphene and its elemental analogue: A molecular dynamics view of fracture phenomenon. <i>Physica B: Condensed Matter</i> , 2017, 515, 67-74.	2.7	41
8	Effect of Magnetic Field on Natural Convection in a C-shaped Cavity Filled with Ferrofluid. <i>Procedia Engineering</i> , 2015, 105, 96-104.	1.2	36
9	Mechanistic artificial intelligence (mechanistic-AI) for modeling, design, and control of advanced manufacturing processes: Current state and perspectives. <i>Journal of Materials Processing Technology</i> , 2022, 302, 117485.	6.3	32
10	Image-based modelling for Adolescent Idiopathic Scoliosis: Mechanistic machine learning analysis and prediction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 374, 113590.	6.6	31
11	MAP123-EP: A mechanistic-based data-driven approach for numerical elastoplastic analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 364, 112955.	6.6	28
12	Numerical and statistical analysis on unsteady magnetohydrodynamic convection in a semi-circular enclosure filled with ferrofluid. <i>International Journal of Heat and Mass Transfer</i> , 2015, 89, 1316-1330.	4.8	26
13	Atomistic Representation of Anomalies in the Failure Behaviour of Nanocrystalline Silicene. <i>Scientific Reports</i> , 2017, 7, 14629.	3.3	26
14	Investigation on mechanical properties of polycrystalline W nanowire. <i>Computational Materials Science</i> , 2017, 136, 52-59.	3.0	24
15	Combined effect of Reynolds and Grashof numbers on mixed convection in a lid-driven T-shaped cavity filled with water-Al ₂ O ₃ nanofluid. <i>Journal of Hydrodynamics</i> , 2015, 27, 782-794.	3.2	20
16	Nature of creep deformation in nanocrystalline Tungsten. <i>Computational Materials Science</i> , 2018, 149, 360-372.	3.0	17
17	Atomistic analysis of the thermomechanical properties of Sn-Ag-Cu solder materials at the nanoscale with the MEAM potential. <i>Journal of Molecular Modeling</i> , 2019, 25, 59.	1.8	16
18	Effect of Sine-Squared Thermal Boundary Condition on Augmentation of Heat Transfer in a Triangular Solar Collector Filled with Different Nanofluids. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2015, 68, 53-74.	0.9	14

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19	Insights into the mechanical properties and fracture mechanism of Cadmium Telluride nanowire. <i>Materials Research Express</i> , 2019, 6, 105083.	1.6	14
20	Numerical Simulation of Unsteady Heat Transfer in a Half-Moon Shape Enclosure with Variable Thermal Boundary Condition for Different Nanofluids. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2014, 65, 282-301.	0.9	13
21	Molecular dynamics simulation of the mechanical properties of CNT-polyoxymethylene composite with a reactive forcefield. <i>Molecular Simulation</i> , 2020, 46, 380-387.	2.0	13
22	Deformation mechanisms of Inconel-718 at the nanoscale by molecular dynamics. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10650-10661.	2.8	8
23	Microscale Structure to Property Prediction for Additively Manufactured IN625 through Advanced Material Model Parameter Identification. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 142-156.	2.6	8
24	Study of uniaxial tensile properties of hexagonal boron nitride nanoribbons. , 2017, , .		7
25	Macroscale Property Prediction for Additively Manufactured IN625 from Microstructure Through Advanced Homogenization. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 360-372.	2.6	5
26	Effect of Lewis Number on Unsteady Double Diffusive Buoyancy Induced Flow in a Triangular Solar Collector with Corrugated Wall. <i>Procedia Engineering</i> , 2014, 90, 418-424.	1.2	3
27	Low head hydro power generation using road side canal water potential in Bangladesh. , 2014, , .		2
28	Cyclic and tensile deformations of Gold-Silver core shell systems using newly parameterized MEAM potential. <i>Mechanics of Materials</i> , 2022, 169, 104304.	3.2	2
29	Geometric Effect on Magnetohydrodynamic Convection in a Half-moon Shaped Cavity Filled with Water Having Semi-circular Bottom Heater. <i>Procedia Engineering</i> , 2015, 105, 73-80.	1.2	1