

# Sadegh Sadeghzadeh

## List of Publications by Year in descending order

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72  
papers

1,090  
citations

430874

18  
h-index

501196

28  
g-index

73  
all docs

73  
docs citations

73  
times ranked

765  
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical investigation on PCM encapsulation shape used in the passive-active battery thermal management. <i>Energy</i> , 2020, 193, 116840.	8.8	152
2	Mechanical properties of defective hybrid graphene-boron nitride nanosheets: A molecular dynamics study. <i>Computational Materials Science</i> , 2018, 149, 170-181.	3.0	69
3	A new multiscale methodology for modeling of single and multi-body solid structures. <i>Computational Materials Science</i> , 2012, 63, 1-11.	3.0	38
4	Effects of vacancies and divacancies on the failure of C3N nanosheets. <i>Diamond and Related Materials</i> , 2018, 89, 257-265.	3.9	33
5	Effect of Nb on the structural, optical and photocatalytic properties of Al-doped ZnO thin films fabricated by the sol-gel method. <i>Ceramics International</i> , 2018, 44, 20170-20177.	4.8	31
6	The mechanical design of hybrid graphene/boron nitride nanotransistors: Geometry and interface effects. <i>Solid State Communications</i> , 2018, 270, 82-86.	1.9	30
7	Application of Higher Order Hamiltonian Approach to the Nonlinear Vibration of Micro Electro Mechanical Systems. <i>Latin American Journal of Solids and Structures</i> , 2016, 13, 478-497.	1.0	28
8	Interfacial Thermal Resistance Mechanism for the Polyaniline (C <sub>3</sub> N)-Graphene Heterostructure. <i>Journal of Physical Chemistry C</i> , 2020, 124, 14316-14326.	3.1	28
9	Studying the effects of longitudinal and transverse defects on the failure of hybrid graphene-boron nitride sheets: A molecular dynamics simulation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 104, 71-81.	2.7	27
10	A comparative study on the mechanical, physical and morphological properties of cement-micro/nanoFe <sub>3</sub> O <sub>4</sub> composite. <i>Scientific Reports</i> , 2020, 10, 2859.	3.3	27
11	Nanoparticle mass detection by single and multilayer graphene sheets: Theory and simulations. <i>Applied Mathematical Modelling</i> , 2016, 40, 7862-7879.	4.2	26
12	Investigation of tetracosane thermal transport in presence of graphene and carbon nanotube fillers: A molecular dynamics study. <i>Journal of Energy Storage</i> , 2020, 29, 101321.	8.1	25
13	The mechanical design of graphene nanodiodes and nanotransistors: geometry, temperature and strain effects. <i>RSC Advances</i> , 2016, 6, 86324-86333.	3.6	23
14	Modal identification of single layer graphene nano sheets from ambient responses using frequency domain decomposition. <i>European Journal of Mechanics, A/Solids</i> , 2017, 65, 70-78.	3.7	22
15	Investigating the effects of adding hybrid nanoparticles, graphene and boron nitride nanosheets, to octadecane on its thermal properties. <i>RSC Advances</i> , 2020, 10, 14785-14793.	3.6	21
16	Aspect ratio and dimension effects on nanorod manipulation by atomic force microscope. <i>Micro and Nano Letters</i> , 2010, 5, 324.	1.3	20
17	Thermal resistance analysis of hybrid graphene-boron nitride nanosheets: The effect of geometry, temperature, size, strain and structural defects. <i>Computational Materials Science</i> , 2020, 174, 109484.	3.0	19
18	Molecular dynamics simulations of phase change materials for thermal energy storage: a review. <i>RSC Advances</i> , 2022, 12, 14776-14807.	3.6	19

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19	Resistance and rupture analysis of single- and few-layer graphene nanosheets impacted by various projectiles. <i>Superlattices and Microstructures</i> , 2016, 97, 617-629.	3.1	18
20	Borophene sheets with in-plane chain-like boundaries; a reactive molecular dynamics study. <i>Computational Materials Science</i> , 2018, 143, 1-14.	3.0	18
21	Constructing a three-dimensional graphene structure via bonding layers by ion beam irradiation. <i>Scientific Reports</i> , 2019, 9, 8127.	3.3	18
22	Thermal conductivity and interfacial thermal resistance behavior for the polyaniline/boron carbide heterostructure. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 13310-13322.	2.8	18
23	Numerical and experimental investigation on electric vehicles battery thermal management under New European Driving Cycle. <i>Applied Energy</i> , 2022, 315, 119026.	10.1	18
24	Vibrational modes and frequencies of borophene in comparison with graphene nanosheets. <i>Superlattices and Microstructures</i> , 2018, 117, 271-282.	3.1	17
25	Influence of Stone-Wales defects on the mechanical properties of graphene-like polyaniline (PANI) C3N nanosheets. <i>Diamond and Related Materials</i> , 2020, 101, 107555.	3.9	16
26	Precise manipulation of metallic nanoparticles: Multiscale analysis. <i>Computational Materials Science</i> , 2013, 67, 11-20.	3.0	15
27	Benchmarking the penetration-resistance efficiency of multilayer graphene sheets due to spacing the graphene layers. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	15
28	The creation of racks and nanopores creation in various allotropes of boron due to the mechanical loads. <i>Superlattices and Microstructures</i> , 2017, 111, 1145-1161.	3.1	15
29	Dynamic modeling for nanomanipulation of polystyrene nanorod by atomic force microscope. <i>Scientia Iranica</i> , 2011, 18, 808-815.	0.4	14
30	Semi-analytical motion analysis of nano-steering devices, segmented piezotube scanners. <i>International Journal of Mechanical Sciences</i> , 2011, 53, 536-548.	6.7	14
31	A study of thermal conductivity in graphene diodes and transistors with intrinsic defects and subjected to metal impurities. <i>Superlattices and Microstructures</i> , 2016, 100, 97-111.	3.1	14
32	Computational design of graphene sheets for withstanding the impact of ultrafast projectiles. <i>Journal of Molecular Graphics and Modelling</i> , 2016, 70, 196-211.	2.4	14
33	Equivalent mechanical boundary conditions for single layer graphene sheets. <i>Micro and Nano Letters</i> , 2016, 11, 248-252.	1.3	14
34	Vibration analysis of defected and pristine triangular single-layer graphene nanosheets. <i>Current Applied Physics</i> , 2018, 18, 1327-1337.	2.4	13
35	Mechanical properties of intrinsic and defective hybrid polyaniline (C3N)-BC3 nanosheets in the armchair and zigzag configurations: a molecular dynamics study. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	2.3	13
36	Coarse-grained molecular dynamics simulation of automatic nanomanipulation process: The effect of tip damage on the positioning errors. <i>Computational Materials Science</i> , 2012, 60, 201-211.	3.0	12

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37	Effects of physical boundary conditions on the transverse vibration of single-layer graphene sheets. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	12
38	On the oblique collision of gaseous molecules with graphene nanosheets. <i>Molecular Simulation</i> , 2016, 42, 1233-1241.	2.0	11
39	High-performance cement containing nanosized Fe <sub>3</sub> O <sub>4</sub> decorated graphene oxide. <i>Construction and Building Materials</i> , 2020, 260, 120454.	7.2	11
40	Hypersonic impact properties of pristine and hybrid single and multi-layer C <sub>3</sub> N and BC <sub>3</sub> nanosheets. <i>Scientific Reports</i> , 2021, 11, 7972.	3.3	11
41	Semi-analytic actuating and sensing in regular and irregular MEMs, single and assembled micro cantilevers. <i>Applied Mathematical Modelling</i> , 2013, 37, 4717-4732.	4.2	10
42	Conceptual design of a 5% MW OTEC power plant in the Oman Sea. <i>Journal of Marine Engineering and Technology</i> , 2017, 16, 94-102.	4.1	10
43	Tailoring the life cycle of lithium-ion batteries with a passive cooling system: A comprehensive dynamic model. <i>International Journal of Energy Research</i> , 2021, 45, 7884-7902.	4.5	10
44	Wrinkling C <sub>3</sub> N nano-grids in uniaxial tensile testing; a molecular dynamics study. <i>Diamond and Related Materials</i> , 2019, 92, 130-137.	3.9	9
45	Aluminum nanocomposites reinforced with monolayer polyaniline (C <sub>3</sub> N): assessing the mechanical and ballistic properties. <i>RSC Advances</i> , 2020, 10, 19134-19148.	3.6	8
46	Nonlocal strain gradient theory for dynamical modeling of a thermo-piezo-magnetically actuated spinning inhomogeneous nanoshell. <i>Mechanics Based Design of Structures and Machines</i> , 2022, 50, 1932-1953.	4.7	8
47	A semi-analytical solution for time-varying latent heat thermal energy storage problems. <i>International Journal of Energy Research</i> , 2020, 44, 2726-2739.	4.5	8
48	Assessing mechanical properties of single-layer B-doped C <sub>3</sub> N and N-doped BC <sub>3</sub> nanosheets and their hybrid. <i>Computational Materials Science</i> , 2021, 192, 110368.	3.0	8
49	A new modeling and compensation approach for creep and hysteretic loops in nanosteering by SPM <sup>TM</sup> s piezotubes. <i>International Journal of Advanced Manufacturing Technology</i> , 2009, 44, 1133-1143.	3.0	7
50	Role of mechanical and thermal nonlinearities in imaging by Atomic Force Microscope. <i>International Journal of Mechanical Sciences</i> , 2017, 122, 255-266.	6.7	7
51	A hybrid solution for analyzing nonlinear dynamics of electrostatically-actuated microcantilevers. <i>Applied Mathematical Modelling</i> , 2017, 48, 593-606.	4.2	7
52	Nano cluster manipulation success considering flexibility of system: Coarse grained molecular dynamics simulations. <i>Scientia Iranica</i> , 2012, 19, 1288-1298.	0.4	5
53	Effects of macro-scale uncertainties on the imaging and automatic manipulation of nanoparticles. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	5
54	A size dependent dynamic model for piezoelectric nanogenerators: effects of geometry, structural and environmental parameters. <i>Materials Research Express</i> , 2018, 5, 035508.	1.6	4

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55	Nanoparticle mass detection by single-layer triangular graphene sheets, the extraordinary geometry for detection of nanoparticles. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	1.9	4
56	On the desalination performance of multi-layer graphene membranes; A molecular dynamics study. <i>Computational Materials Science</i> , 2021, 191, 110335.	3.0	4
57	Coupled dynamics of piezo-tube and microcantilever in scanning probe devices and sensitive samples imaging. <i>Micro and Nano Letters</i> , 2012, 7, 986-990.	1.3	3
58	Tailoring the effects of interface physics on the free vibration of graphene-boron nitride heterostructure. <i>Diamond and Related Materials</i> , 2022, 124, 108939.	3.9	3
59	A new approach to dispersing and stabilizing graphene in aqueous nanofluids of enhanced efficiency of energy-systems. <i>Scientific Reports</i> , 2020, 10, 7707.	3.3	2
60	Crack pathway analysis in graphene-like BC3 nanosheets: Towards a deeper understanding. <i>Journal of Molecular Graphics and Modelling</i> , 2021, 107, 107980.	2.4	2
61	A semi-analytic modeling of nonlinearities for nano-robotic applications, macro and micro sized systems. , 2011, , .		1
62	A shape-feedback approach for more precise automatic nano manipulation process. , 2011, , .		1
63	Manipulation of Nanorods on Elastic Substrate, Modeling and Analysis. , 0, , .		1
64	Effects of damping and stiffness of AFM cantilever on the imaging of fine surfaces. <i>Microscopy Research and Technique</i> , 2016, 79, 982-992.	2.2	1
65	Effect of nitrogen or boron impurities on the mechanical and vibrational properties of graphene nanosheets: a molecular dynamics approach. <i>Micro and Nano Letters</i> , 2020, 15, 977-983.	1.3	1
66	Tailoring the hardness of aluminum surface reinforced with graphene and C3N nanosheets. <i>Diamond and Related Materials</i> , 2022, 127, 109139.	3.9	1
67	Reactive molecular dynamics simulation of thermo-physicochemical properties of non-covalent functionalized graphene nanofluids. <i>Materials Today Communications</i> , 2022, 32, 103869.	1.9	1
68	A multi-scale Dynamic approach for nano-robotic applications. , 2011, , .		0
69	Enhancement of nanogripper performance by using soft material coating. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 2082-2089.	2.1	0
70	Two-region semi-analytical solution for latent heat thermal energy storage systems. <i>International Journal of Energy Research</i> , 0, , .	4.5	0
71	Impact dynamics of metallic nano particles in collision with graphene nano sheets. <i>Scientia Iranica</i> , 2016, 23, 3153-3162.	0.4	0
72	Free Vibration Analysis of a Spinning Smart Piezoelectrically Actuated Heterogeneous Nanoscale Shell with Nonlocal Strain Gradient Theory. <i>Journal of Nano Research</i> , 0, 64, 1-19.	0.8	0