

Chandra Veer Singh

List of Publications by Citations

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150
papers

4,551
citations

41
h-index

63
g-index

165
ext. papers

5,722
ext. citations

8.7
avg, IF

6.29
L-index

#	Paper	IF	Citations
150	Phosphorene as a Polysulfide Immobilizer and Catalyst in High-Performance Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017 , 29, 1602734	24	249
149	Vertically Oriented Arrays of ReS ₂ Nanosheets for Electrochemical Energy Storage and Electrocatalysis. <i>Nano Letters</i> , 2016 , 16, 3780-7	11.5	201
148	Photoexcited Surface Frustrated Lewis Pairs for Heterogeneous Photocatalytic CO ₂ Reduction. <i>Journal of the American Chemical Society</i> , 2016 , 138, 1206-14	16.4	154
147	Determining the limiting factor of the electrochemical stability window for PEO-based solid polymer electrolytes: main chain or terminal OH group?. <i>Energy and Environmental Science</i> , 2020 , 13, 1318-1325	35.4	141
146	Illuminating CO ₂ reduction on frustrated Lewis pair surfaces: investigating the role of surface hydroxides and oxygen vacancies on nanocrystalline In ₂ O _{3-x} (OH) _y . <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 14623-35	3.6	135
145	High strength measurement of monolayer graphene oxide. <i>Carbon</i> , 2015 , 81, 497-504	10.4	117
144	A Foldable Lithium-Sulfur Battery. <i>ACS Nano</i> , 2015 , 9, 11342-50	16.7	107
143	Damage and Failure of Composite Materials 2012 ,		103
142	Adsorption of Metallic, Metalloidal, and Nonmetallic Adatoms on Two-Dimensional C ₃ N. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18575-18583	3.8	97
141	Ultrahigh Storage and Fast Diffusion of Na and K in Blue Phosphorene Anodes. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 8630-8639	9.5	96
140	Adsorption and Dissociation of H ₂ O on Monolayered MoS ₂ Edges: Energetics and Mechanism from ab Initio Simulations. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6518-6529	3.8	85
139	Borophene hydride: a stiff 2D material with high thermal conductivity and attractive optical and electronic properties. <i>Nanoscale</i> , 2018 , 10, 3759-3768	7.7	83
138	Amorphous TiO ₂ as a Photocatalyst for Hydrogen Production: A DFT Study of Structural and Electronic Properties. <i>Energy Procedia</i> , 2012 , 29, 291-299	2.3	79
137	Mechanical properties of monolayer penta-graphene and phagraphene: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 26736-26742	3.6	77
136	Defect engineering of graphene for effective hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 4981-4995	6.7	74
135	Heterogeneous reduction of carbon dioxide by hydride-terminated silicon nanocrystals. <i>Nature Communications</i> , 2016 , 7, 12553	17.4	73
134	Carrier dynamics and the role of surface defects: Designing a photocatalyst for gas-phase CO ₂ reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E8011-E8020	11.5	73

133	A synergistic damage mechanics approach for composite laminates with matrix cracks in multiple orientations. <i>Mechanics of Materials</i> , 2009 , 41, 954-968	3.3	71
132	Evolution of ply cracks in multidirectional composite laminates. <i>International Journal of Solids and Structures</i> , 2010 , 47, 1338-1349	3.1	71
131	Catalytic CO ₂ reduction by palladium-decorated silicon hydride nanosheets. <i>Nature Catalysis</i> , 2019 , 2, 46-54	36.5	69
130	Adsorption and Diffusion of Lithium and Sodium on Defective Rhenium Disulfide: A First Principles Study. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5373-5384	9.5	67
129	Consequences of Surface Oxophilicity of Ni, Ni-Co, and Co Clusters on Methane Activation. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6928-6945	16.4	66
128	Band Engineering of Carbon Nitride Monolayers by N-Type, P-Type, and Isoelectronic Doping for Photocatalytic Applications. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 11143-11151	9.5	66
127	Mechanisms of Guinier-Preston zone hardening in the athermal limit. <i>Acta Materialia</i> , 2010 , 58, 5797-5808	8.4	61
126	Development of constitutive material model of 3D printed structure via FDM. <i>Materials Today Communications</i> , 2018 , 15, 143-152	2.5	60
125	Tailoring Surface Frustrated Lewis Pairs of InO (OH) for Gas-Phase Heterogeneous Photocatalytic Reduction of CO by Isomorphous Substitution of In with Bi. <i>Advanced Science</i> , 2018 , 5, 1700732	13.6	60
124	Fatigue of graphene. <i>Nature Materials</i> , 2020 , 19, 405-411	27	59
123	Photothermal Catalyst Engineering: Hydrogenation of Gaseous CO with High Activity and Tailored Selectivity. <i>Advanced Science</i> , 2017 , 4, 1700252	13.6	59
122	2D Hydrogenated graphene-like borophene as a high capacity anode material for improved Li/Na ion batteries: A first principles study. <i>Materials Today Energy</i> , 2018 , 8, 22-28	7	58
121	Interfacial Shear Strength of Multilayer Graphene Oxide Films. <i>ACS Nano</i> , 2016 , 10, 1939-47	16.7	55
120	Enhanced photothermal reduction of gaseous CO ₂ over silicon photonic crystal supported ruthenium at ambient temperature. <i>Energy and Environmental Science</i> , 2018 , 11, 3443-3451	35.4	53
119	Atomistic simulations of dislocation-precipitate interactions emphasize importance of cross-slip. <i>Scripta Materialia</i> , 2011 , 64, 398-401	5.6	51
118	A representative volume element based on translational symmetries for FE analysis of cracked laminates with two arrays of cracks. <i>International Journal of Solids and Structures</i> , 2009 , 46, 1793-1804	3.1	51
117	Mechanochemistry for ammonia synthesis under mild conditions. <i>Nature Nanotechnology</i> , 2021 , 16, 325-330	38.9	51
116	Analysis of multiple off-axis ply cracks in composite laminates. <i>International Journal of Solids and Structures</i> , 2008 , 45, 4574-4589	3.1	49

115	Surface Analogues of Molecular Frustrated Lewis Pairs in Heterogeneous CO ₂ Hydrogenation Catalysis. <i>ACS Catalysis</i> , 2016 , 6, 5764-5770	13.1	49
114	Nonlinear fracture toughness measurement and crack propagation resistance of functionalized graphene multilayers. <i>Science Advances</i> , 2018 , 4, eaao7202	14.3	48
113	Metadynamics-Biased ab Initio Molecular Dynamics Study of Heterogeneous CO ₂ Reduction via Surface Frustrated Lewis Pairs. <i>ACS Catalysis</i> , 2016 , 6, 7109-7117	13.1	48
112	Adsorption and diffusion of lithium polysulfides over blue phosphorene for Li-S batteries. <i>Nanoscale</i> , 2018 , 10, 21335-21352	7.7	46
111	Strengthening in Graphene Oxide Nanosheets: Bridging the Gap between Interplanar and Intraplanar Fracture. <i>Nano Letters</i> , 2015 , 15, 6528-34	11.5	45
110	A first principles study of hydrogen storage in lithium decorated defective phosphorene. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23018-23027	6.7	41
109	Theoretical Investigation: 2D N-Graphdiyne Nanosheets as Promising Anode Materials for Li/Na Rechargeable Storage Devices. <i>ACS Applied Nano Materials</i> , 2019 , 2, 127-135	5.6	40
108	Highly Efficient Ambient Temperature CO ₂ Photomethanation Catalyzed by Nanostructured RuO ₂ on Silicon Photonic Crystal Support. <i>Advanced Energy Materials</i> , 2018 , 8, 1702277	21.8	39
107	A first principles study of hydrogen storage on lithium decorated two dimensional carbon allotropes. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 6128-6136	6.7	37
106	Development of a physics-based multi-scale progressive damage model for assessing the durability of wind turbine blades. <i>Composite Structures</i> , 2016 , 141, 50-62	5.3	36
105	A synergistic damage mechanics approach to mechanical response of composite laminates with ply cracks. <i>Journal of Composite Materials</i> , 2013 , 47, 2475-2501	2.7	35
104	Predicting evolution of ply cracks in composite laminates subjected to biaxial loading. <i>Composites Part B: Engineering</i> , 2015 , 75, 264-273	10	34
103	A synergistic damage mechanics based multiscale model for composite laminates subjected to multiaxial strains. <i>Mechanics of Materials</i> , 2015 , 83, 72-89	3.3	33
102	Hydrogen storage in Li, Na and Ca decorated and defective borophene: a first principles study.. <i>RSC Advances</i> , 2018 , 8, 20748-20757	3.7	33
101	A molecular dynamic simulation on the factors influencing the fluidity of molten coke ash during alkalization with K ₂ O and Na ₂ O. <i>Chemical Engineering Journal</i> , 2017 , 313, 1184-1193	14.7	33
100	Neural Network-Assisted Development of High-Entropy Alloy Catalysts: Decoupling Ligand and Coordination Effects. <i>Matter</i> , 2020 , 3, 1318-1333	12.7	32
99	Two-dimensional boron as an impressive lithium-sulphur battery cathode material. <i>Energy Storage Materials</i> , 2018 , 13, 80-87	19.4	31
98	Harnessing atomistic simulations to predict the rate at which dislocations overcome obstacles. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 90, 203-214	5	30

97	A van der Waals density functional theory comparison of metal decorated graphene systems for hydrogen adsorption. <i>Journal of Applied Physics</i> , 2014 , 115, 224301	2.5	30
96	Carbon ene-yne graphyne monolayer as an outstanding anode material for Li/Na ion batteries. <i>Applied Materials Today</i> , 2018 , 10, 115-121	6.6	29
95	An Atomistic-Based Hierarchical Multiscale Examination of Age Hardening in an Al-Cu Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 2625-2644	2.3	28
94	Toughening of graphene-based polymer nanocomposites via tuning chemical functionalization. <i>Composites Science and Technology</i> , 2020 , 194, 108140	8.6	27
93	Competing twinning mechanisms in body-centered cubic metallic nanowires. <i>Scripta Materialia</i> , 2016 , 113, 214-217	5.6	25
92	The ideal strength of two-dimensional stanene may reach or exceed the Griffith strength estimate. <i>Nanoscale</i> , 2017 , 9, 7055-7062	7.7	24
91	Solar grade silicon production: A review of kinetic, thermodynamic and fluid dynamics based continuum scale modeling. <i>Renewable and Sustainable Energy Reviews</i> , 2017 , 78, 1288-1314	16.2	24
90	Analysis of the Material Behavior of 3D Printed Laminates Via FFF. <i>Experimental Mechanics</i> , 2019 , 59, 871-881	2.6	24
89	Prediction of ply crack evolution and stiffness degradation in multidirectional symmetric laminates under multiaxial stress states. <i>Composites Part B: Engineering</i> , 2018 , 133, 53-67	10	24
88	Effect of doping on electronic structure and photocatalytic behavior of amorphous TiO ₂ . <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 475501	1.8	24
87	New insights into the structure-nonlinear mechanical property relations for graphene allotropes. <i>Carbon</i> , 2016 , 110, 443-457	10.4	23
86	Deciphering Interfacial Chemical and Electrochemical Reactions of Sulfide-Based All-Solid-State Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2100210	21.8	20
85	Uncertainty analysis and estimation of robust AIREBO parameters for graphene. <i>Carbon</i> , 2019 , 142, 300-310	21.0	20
84	A triple atom catalyst with ultrahigh loading potential for nitrogen electrochemical reduction. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15086-15093	13	19
83	Computational screening of homo and hetero transition metal dimer catalysts for reduction of CO ₂ to C ₂ products with high activity and low limiting potential. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 21241-21254	13	19
82	Effects of topological point reconstructions on the fracture strength and deformation mechanisms of graphene. <i>Computational Materials Science</i> , 2015 , 97, 172-180	3.2	17
81	Role of graphene in enhancing the mechanical properties of TiO/graphene heterostructures. <i>Nanoscale</i> , 2017 , 9, 11678-11684	7.7	17
80	A DFT + U study of (Rh, Nb)-codoped rutile TiO ₂ . <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 085501	1.8	17

79	Molecular Dynamics Investigation on Coke Ash Behavior in the High-Temperature Zones of a Blast Furnace: Influence of Alkalis. <i>Energy & Fuels</i> , 2017 , 31, 13466-13474	4.1	16
78	Electrolyte-Phobic Surface for the Next-Generation Nanostructured Battery Electrodes. <i>Nano Letters</i> , 2020 , 20, 7455-7462	11.5	16
77	Atomistic Origins of Ductility Enhancement in Metal Oxide Coated Silicon Nanowires for Li-Ion Battery Anodes. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700920	4.6	15
76	A kinematic study of energy barriers for crack formation in graphene tilt boundaries. <i>Journal of Applied Physics</i> , 2014 , 115, 223513	2.5	15
75	Assessing progressive failure in long wind turbine blades under quasi-static and cyclic loads. <i>Renewable Energy</i> , 2018 , 119, 754-766	8.1	15
74	Phosphorene as a Catalyst for Highly Efficient Nonaqueous Li-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 499-510	9.5	14
73	Transition metal-N embedded black phosphorus carbide as a high-performance bifunctional electrocatalyst for ORR/OER. <i>Nanoscale</i> , 2020 , 12, 18721-18732	7.7	13
72	Predicting aggregation energy for single atom bimetallic catalysts on clean and O* adsorbed surfaces through machine learning models. <i>Catalysis Science and Technology</i> , 2020 , 10, 86-98	5.5	12
71	Self-Trapped Charge Carriers in Defected Amorphous TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2016 , 120, 27910-27916	3.8	12
70	Insights on the dual role of two-dimensional materials as catalysts and supports for energy and environmental catalysis. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 2018-2042	13	12
69	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. <i>Carbon</i> , 2018 , 136, 168-175	10.4	11
68	Temperature dependence of grain boundary excess free volume. <i>Scripta Materialia</i> , 2020 , 178, 71-76	5.6	11
67	Machine-learning-accelerated discovery of single-atom catalysts based on bidirectional activation mechanism. <i>Chem Catalysis</i> , 2021 , 1, 183-195		11
66	Understanding the Independent and Interdependent Role of Water and Oxidation on the Tribology of Ultrathin Molybdenum Disulfide (MoS ₂). <i>Advanced Materials Interfaces</i> , 2019 , 6, 1901246	4.6	10
65	Phase Evolution of a Prenucleator for Fast Li Nucleation in All-Solid-State Lithium Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2001191	21.8	10
64	Role of niobium and oxygen concentration on glass forming ability and crystallization behavior of Zr-Ni-Al-Cu-Nb bulk metallic glasses with low copper concentration. <i>Journal of Non-Crystalline Solids</i> , 2016 , 445-446, 88-94	3.9	10
63	Development and implementation of a multi-scale model for matrix micro-cracking prediction in composite structures subjected to low velocity impact. <i>Composites Part B: Engineering</i> , 2019 , 168, 140-151	10	10
62	Molecular adsorption and surface formation reactions of HCl, H ₂ and chlorosilanes on Si(100)-c(4 × 8) with applications for high purity silicon production. <i>Applied Surface Science</i> , 2019 , 475, 124-134	6.7	10

61	Critical stiffness damage envelopes for multidirectional laminated structures under multiaxial loading conditions. <i>Materials and Design</i> , 2016 , 91, 218-229	8.1	9
60	Tailoring lattice strain in ultra-fine high-entropy alloys for active and stable methanol oxidation. <i>Science China Materials</i> , 2021 , 64, 2454-2466	7.1	9
59	Deformation behavior of a NiCo multilayer with a modulated grain size distribution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 641, 305-314	5.3	8
58	Investigating the atomic level influencing factors of glass forming ability in NiAl and CuZr metallic glasses. <i>Journal of Chemical Physics</i> , 2015 , 143, 114509	3.9	8
57	Materials perspective on new lithium chlorides and bromides: insights into thermo-physical properties. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 22758-22767	3.6	8
56	Importance of quadratic dispersion in acoustic flexural phonons for thermal transport of two-dimensional materials. <i>Physical Review B</i> , 2021 , 103,	3.3	8
55	Elastomer-like deformation in high-Poisson's-ratio graphene allotropes may allow tensile strengths beyond theoretical cohesive strength limits. <i>Carbon</i> , 2019 , 143, 752-761	10.4	8
54	Dramatic improvement in the performance of graphene as Li/Na battery anodes with suitable electrolytic solvents. <i>Carbon</i> , 2020 , 161, 570-576	10.4	7
53	Size effects in strengthening of NiCo multilayers with modulated microstructures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 771, 138581	5.3	7
52	Kinetics of annealing-induced detwinning in chemical vapor deposited nickel. <i>Acta Materialia</i> , 2019 , 178, 263-274	8.4	6
51	Structure-Dependent Wear and Shear Mechanics of Nanostructured MoS ₂ Coatings. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901870	4.6	6
50	Effect of He on the Order-Disorder Transition in Ni ₃ Al under Irradiation. <i>Physical Review Letters</i> , 2020 , 124, 075901	7.4	6
49	Interface Engineering of Co/CoMoN/NF Heterostructures for High-Performance Electrochemical Overall Water Splitting.. <i>Advanced Science</i> , 2022 , e2105313	13.6	6
48	How does mass transfer influence electrochemical carbon dioxide reduction reaction? A case study of Ni molecular catalyst supported on carbon. <i>Chemical Communications</i> , 2021 , 57, 1384-1387	5.8	6
47	Fast-Charging Halide-Based All-Solid-State Batteries by Manipulation of Current Collector Interface. <i>Advanced Functional Materials</i> , 2020 , 2200767	15.6	6
46	Microtissue Engineering Root Dentin with Photodynamically Cross-linked Nanoparticles Improves Fatigue Resistance of Endodontically Treated Teeth. <i>Journal of Endodontics</i> , 2020 , 46, 668-674	4.7	5
45	Development of a synergistic damage mechanics model to predict evolution of ply cracking and stiffness changes in multidirectional composite laminates under creep. <i>International Journal of Damage Mechanics</i> , 2016 , 25, 1060-1078	3	5
44	Uncertainty and sensitivity analysis of mechanical and thermal properties computed through Embedded Atom Method potential. <i>Computational Materials Science</i> , 2019 , 166, 30-41	3.2	4

43	Short-range structural origins of serration events in metallic glasses. <i>Journal of Alloys and Compounds</i> , 2019 , 787, 840-850	5.7	4
42	Friction of magnetene, a non-van der Waals 2D material. <i>Science Advances</i> , 2021 , 7, eabk2041	14.3	4
41	Strength of graphene with curvilinear grain boundaries. <i>Carbon</i> , 2020 , 158, 808-817	10.4	4
40	Interfacial Interactions and Tribological Behavior of Metal-Oxide/2D-Material Contacts. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	4
39	Identification of Tetramers in Silver Films Grown on the Si(001) Surface at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 6275-6279	6.4	4
38	First Principles Investigation of HCl, H ₂ , and Chlorosilane Adsorption on Cu ₃ Si Surfaces with Applications for Polysilicon Production. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 20252-20260	3.8	3
37	Effect of matrix cracks and delamination on extension-twist coupling of thin pretwisted composite strips. <i>Composite Structures</i> , 2017 , 180, 234-250	5.3	3
36	Mechanical Size Effect of Freestanding Nanoconfined Polymer Films. <i>Macromolecules</i> ,	5.5	3
35	Performance Analysis of Composite Helicopter Blade Using Synergistic Damage Mechanics Approach. <i>AIAA Journal</i> , 2020 , 58, 968-976	2.1	3
34	Anisotropic phonon thermal transport in nitrophosphorene monolayer. <i>Physical Review Materials</i> , 2021 , 5,	3.2	3
33	How Silver Grows on the Silicon (001) Surface: A Theoretical and Experimental Investigation. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 122-131	4	3
32	Deformation behavior of BCC tantalum nanolayered composites with modulated layer thicknesses. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 761, 138037	5.3	2
31	Solar Fuels: Highly Efficient Ambient Temperature CO ₂ Photomethanation Catalyzed by Nanostructured RuO ₂ on Silicon Photonic Crystal Support (Adv. Energy Mater. 9/2018). <i>Advanced Energy Materials</i> , 2018 , 8, 1870041	21.8	2
30	Atomic structure of Ni-Nb-Y amorphous alloys and water-surface adsorption characteristics. <i>Computational Materials Science</i> , 2019 , 169, 109095	3.2	2
29	A Practical Investigation of the Production of Zr-Cu-Al-Ni Bulk Metallic Glasses by Arc Melting and Suction Casting. <i>Materials Transactions</i> , 2015 , 56, 1834-1841	1.3	2
28	Multiscale Modeling for Damage Analysis 2008 , 529-578		2
27	Insights into oxygen activation on metal clusters for catalyst design. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 11726-11733	13	2
26	A first-principles study of the relationship between modulus and ideal strength of single-layer, transition metal dichalcogenides. <i>Materials Advances</i> ,	3.3	2

25	Time-dependent damage analysis for viscoelastic-viscoplastic structural laminates under biaxial loading. <i>Composite Structures</i> , 2018 , 203, 60-70	5.3	2
24	Neural evolution structure generation: High entropy alloys. <i>Journal of Chemical Physics</i> , 2021 , 155, 044102	9.2	2
23	Two-Dimensional Graphdiyne-Confined Platinum Catalyst for Hydrogen Evolution and Oxygen Reduction Reactions. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 47541-47548	9.5	2
22	Fatigue resistance of atomically thin graphene oxide. <i>Carbon</i> , 2021 , 183, 780-788	10.4	2
21	Atomistic study of crack-tip plasticity in precipitation hardened monocrystalline aluminum. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019 , 27, 065009	2	1
20	Photothermal Catalysis: Photothermal Catalyst Engineering: Hydrogenation of Gaseous CO ₂ with High Activity and Tailored Selectivity (Adv. Sci. 10/2017). <i>Advanced Science</i> , 2017 , 4,	13.6	1
19	Damage Mechanics of Composite Laminates with Transverse Matrix Cracks in Multiple Orientations 2007 ,		1
18	Two-dimensional square metal organic framework as promising cathode material for lithium-sulfur battery with high theoretical energy density.. <i>Journal of Colloid and Interface Science</i> , 2021 , 613, 435-446	9.3	1
17	Progressive Failure Analysis of Polymer Composites Using a Synergistic Damage Mechanics Methodology 2014 , 147-155		1
16	A molecular dynamics study of dislocation ejection and shear coupling associated with incoherent twin boundary migration. <i>Materialia</i> , 2021 , 16, 101111	3.2	1
15	Fundamental Insights into Electrical and Transport Properties of Chloroaluminate Ionic Liquids for Aluminum-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 15145-15154	3.8	1
14	Defect evolution behaviors from single sulfur point vacancies to line vacancies in monolayer molybdenum disulfide. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 19525-19536	3.6	1
13	Synergistic vacancy defects and mechanical strain for the modulation of the mechanical, electronic and optical properties of monolayer tungsten disulfide. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 6298-6308	3.6	1
12	Bias dependence and defect analysis of Bi on Si(111) $\sqrt{3}\sqrt{3}$ phase. <i>Physical Review B</i> , 2021 , 103,	3.3	1
11	Solar Fuels: Tailoring Surface Frustrated Lewis Pairs of In ₂ O ₃ x(OH) _y for Gas-Phase Heterogeneous Photocatalytic Reduction of CO ₂ by Isomorphous Substitution of In ³⁺ with Bi ³⁺ (Adv. Sci. 6/2018). <i>Advanced Science</i> , 2018 , 5, 1870034	13.6	1
10	Thermoconformational Behavior of Cellulose Nanofiber Films as a Device Substrate and Their Superior Flexibility and Durability to Glass. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 40853-40862	9.5	1
9	Quantum well states and sizable Rashba splitting on Pb induced $\sqrt{3}\sqrt{3}$ phase Bi/Si(111) surface reconstruction. <i>Nanoscale</i> , 2021 , 13, 16622-16628	7.7	1
8	Eggshell-like MoS ₂ Nanostructures with Negative Curvature and Stepped Faces for Efficient Hydrogen Evolution Reactions. <i>ACS Applied Nano Materials</i> , 2021 , 4, 14086-14093	5.6	1

- 7 Mechanistic Origin of Orientation-Dependent Substructure Evolution in Aluminum and Aluminum-Magnesium Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, 1 2.3 0
- 6 A fast mollified impulse method for biomolecular atomistic simulations. *Journal of Computational Physics*, **2017**, 333, 180-198 4.1
- 5 2.7 Micromechanics of Damage Evolution in Laminates **2018**, 118-147
- 4 Progressive Failure Analysis of Polymer Composites Using a Synergistic Damage Mechanics Methodology **2014**, 147-155
- 3 Failure mechanisms in thin-walled nanocrystalline cylinders under uniaxial compression. *Acta Materialia*, **2015**, 86, 157-168 8.4
- 2 Macro-damage mechanics 134-178
- 1 Damage progression 179-236