# Noejung Park

#### List of Publications by Citations

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#	Paper	IF	Citations
156	An efficient and pH-universal ruthenium-based catalyst for the hydrogen evolution reaction. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 441-446	28.7	857
155	Nitrogenated holey two-dimensional structures. <i>Nature Communications</i> , <b>2015</b> , 6, 6486	17.4	684
154	Promotion of oxygen reduction by a bio-inspired tethered iron phthalocyanine carbon nanotube-based catalyst. <i>Nature Communications</i> , <b>2013</b> , 4, 2076	17.4	513
153	Magnetic ordering at the edges of graphitic fragments: Magnetic tail interactions between the edge-localized states. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	450
152	Two-dimensional polyaniline (C3N) from carbonized organic single crystals in solid state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 7414-9	11.5	278
151	Facile, scalable synthesis of edge-halogenated graphene nanoplatelets as efficient metal-free eletrocatalysts for oxygen reduction reaction. <i>Scientific Reports</i> , <b>2013</b> , 3, 1810	4.9	278
150	Synthesis and characterization of patronite form of vanadium sulfide on graphitic layer. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 8720-5	16.4	235
149	Metal ion induced FRET OFF-ON in tren/dansyl-appended rhodamine. <i>Organic Letters</i> , <b>2008</b> , 10, 213-6	6.2	228
148	Direct nitrogen fixation at the edges of graphene nanoplatelets as efficient electrocatalysts for energy conversion. <i>Scientific Reports</i> , <b>2013</b> , 3, 2260	4.9	179
147	Magnetism in all-carbon nanostructures with negative Gaussian curvature. <i>Physical Review Letters</i> , <b>2003</b> , 91, 237204	7.4	176
146	Probing Evolution of Twist-Angle-Dependent Interlayer Excitons in MoSe/WSe van der Waals Heterostructures. <i>ACS Nano</i> , <b>2017</b> , 11, 4041-4050	16.7	157
145	Ruthenium anchored on carbon nanotube electrocatalyst for hydrogen production with enhanced Faradaic efficiency. <i>Nature Communications</i> , <b>2020</b> , 11, 1278	17.4	156
144	Multilayer Graphynes for Lithium Ion Battery Anode. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 6919-69	92338	153
143	Development of double-perovskite compounds as cathode materials for low-temperature solid oxide fuel cells. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 13064-7	16.4	150
142	Computational study of hydrogen storage characteristics of covalent-bonded graphenes. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 8999-9003	16.4	148
141	Carbon-Coated Core-Shell Fe-Cu Nanoparticles as Highly Active and Durable Electrocatalysts for a Zn-Air Battery. <i>ACS Nano</i> , <b>2015</b> , 9, 6493-501	16.7	142
140	Metal-free Ketjenblack incorporated nitrogen-doped carbon sheets derived from gelatin as oxygen reduction catalysts. <i>Nano Letters</i> , <b>2014</b> , 14, 1870-6	11.5	134

## (2012-2016)

Wafer-Scale and Wrinkle-Free Epitaxial Growth of Single-Orientated Multilayer Hexagonal Boron Nitride on Sapphire. <i>Nano Letters</i> , <b>2016</b> , 16, 3360-6	11.5	130
Bifunctional sulfur-doped cobalt phosphide electrocatalyst outperforms all-noble-metal electrocatalysts in alkaline electrolyzer for overall water splitting. <i>Nano Energy</i> , <b>2018</b> , 53, 286-295	17.1	119
Optimization of metal dispersion in doped graphitic materials for hydrogen storage. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	105
Nitrogen-doped graphene nanoplatelets from simple solution edge-functionalization for n-type field-effect transistors. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 8981-8	16.4	102
Oxygen-induced p-type doping of a long individual single-walled carbon nanotube. <i>Nanotechnology</i> , <b>2005</b> , 16, 1048-1052	3.4	100
Effect of vacancy defects in graphene on metal anchoring and hydrogen adsorption. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 173102	3.4	98
Crossover between multipole Coulomb and Kubas interactions in hydrogen adsorption on metal-graphene complexes. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	86
Large-area graphene films by simple solution casting of edge-selectively functionalized graphite. <i>ACS Nano</i> , <b>2011</b> , 5, 4974-80	16.7	85
Macroporous Inverse Opal-like MoC with Incorporated Mo Vacancies for Significantly Enhanced Hydrogen Evolution. <i>ACS Nano</i> , <b>2017</b> , 11, 7527-7533	16.7	84
Organic-Catholyte-Containing Flexible Rechargeable Lithium Batteries. <i>Advanced Materials</i> , <b>2015</b> , 27, 5141-6	24	80
Coordination Chemistry of [Co(acac)2] with N-Doped Graphene: Implications for Oxygen Reduction Reaction Reactivity of Organometallic Co-O4 -N Species. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 12622-6	16.4	79
Exploring Critical Factors Affecting Strain Distribution in 1D Silicon-Based Nanostructures for Lithium-Ion Battery Anodes. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705430	24	78
Simultaneously Controllable Doping Sites and the Activity of a WIN Codoped TiO2 Photocatalyst. <i>ACS Catalysis</i> , <b>2016</b> , 6, 2745-2753	13.1	76
Effective metal dispersion in pyridinelike nitrogen doped graphenes for hydrogen storage. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 013106	3.4	70
Antimony-doped graphene nanoplatelets. <i>Nature Communications</i> , <b>2015</b> , 6, 7123	17.4	68
Conversion of multilayer graphene into continuous ultrathin spDbonded carbon films on metal surfaces. <i>Scientific Reports</i> , <b>2013</b> , 3, 3276	4.9	66
In Situ Electrochemical Activation of Atomic Layer Deposition Coated MoS2 Basal Planes for Efficient Hydrogen Evolution Reaction. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701825	15.6	65
	Nitride on Sapphire. Nano Letters, 2016, 16, 3360-6  Bifunctional sulfur-doped cobalt phosphide electrocatalyst outperforms all-noble-metal electrocatalysts in alkaline electrolyzer for overall water splitting. Nano Energy, 2018, 53, 286-295  Optimization of metal dispersion in doped graphitic materials for hydrogen storage. Physical Review B, 2008, 78,  Nitrogen-doped graphene nanoplatelets from simple solution edge-functionalization for n-type field-effect transistors. Journal of the American Chemical Society, 2013, 135, 8981-8  Oxygen-induced p-type doping of a long individual single-walled carbon nanotube. Nanotechnology, 2005, 16, 1048-1052  Effect of vacancy defects in graphene on metal anchoring and hydrogen adsorption. Applied Physics Letters, 2009, 94, 173102  Crossover between multipole Coulomb and Kubas interactions in hydrogen adsorption on metal-graphene complexes. Physical Review B, 2009, 79,  Large-area graphene films by simple solution casting of edge-selectively functionalized graphite. ACS Nano, 2011, 5, 4974-80  Macroporous Inverse Opal-like MoC with Incorporated Mo Vacancies for Significantly Enhanced Hydrogen Evolution. ACS Nano, 2017, 11, 7527-7533  Organic-Catholyte-Containing Flexible Rechargeable Lithium Batteries. Advanced Materials, 2015, 27, 5141-6  Coordination Chemistry of [Co(acac)2] with N-Doped Graphene: Implications for Oxygen Reduction Reactivity of Organometallic Co-O4-N Species. Angewandte Chemie - International Edition, 2015, 41, 12622-6  Exploring Critical Factors Affecting Strain Distribution in 1D Silicon-Based Nanostructures for Lithium-lon Battery Anodes. Advanced Materials, 2018, 30, e1705430  Simultaneously Controllable Doping Sites and the Activity of a WN Codoped TiO2 Photocatalyst. ACS Catalysis, 2016, 6, 2745-2753  Effective metal dispersion in pyridinelike nitrogen doped graphenes for hydrogen storage. Applied Physics Letters, 2008, 92, 013106  Antimony-doped graphene nanoplatelets. Nature Communications, 2015, 6, 7123  Conversion of multilayer graphene into con	Nitride on Sapphire. Nano Letters, 2016, 16, 3360-6  Bifunctional sulfur-doped cobalt phosphide electrocatalyst outperforms all-noble-metal electrocatalysts in alkaline electrolyzer for overall water splitting. Nano Energy, 2018, 53, 286-295  Optimization of metal dispersion in doped graphitic materials for hydrogen storage. Physical Review B, 2008, 78,  Nitrogen-doped graphene nanoplatelets from simple solution edge-functionalization for n-type field-effect transistors. Journal of the American Chemical Society, 2013, 135, 8981-8  16-4  Oxygen-induced p-type doping of a long individual single-walled carbon nanotube. Nanotechnology, 34  Effect of vacancy defects in graphene on metal anchoring and hydrogen adsorption. Applied Physics Letters, 2009, 94, 173102  Crossover between multipole Coulomb and Kubas interactions in hydrogen adsorption on metal-graphene complexes. Physical Review B, 2009, 79,  Large-area graphene films by simple solution casting of edge-selectively functionalized graphite.  ACS Nano, 2011, 5, 4974-80  Macroporous Inverse Opal-like MoC with Incorporated Mo Vacancies for Significantly Enhanced Hydrogen Evolution. ACS Nano, 2017, 11, 7527-7533  Organic-Catholyte-Containing Flexible Rechargeable Lithium Batteries. Advanced Materials, 2015, 27, 5141-6  Coordination Chemistry of [Co(acac)2] with N-Doped Graphene: Implications for Oxygen Reduction Reactivity of Organometallic Co-O4 -N Species. Angewandte Chemie - International Edition, 2015, 54, 12622-6  Exploring Critical Factors Affecting Strain Distribution in 1D Silicon-Based Nanostructures for Lithium-lon Battery Anodes. Advanced Materials, 2018, 30, e1705430  Effective metal dispersion in pyridinelike nitrogen doped graphenes for hydrogen storage. Applied Physics Letters, 2008, 92, 013106  Antimony-doped graphene nanoplatelets. Nature Communications, 2015, 6, 7123  17-4  Conversion of multilayer graphene into continuous ultrathin splibonded carbon films on metal surfaces. Scientific Reports, 2013, 3, 3276  In Situ Electrochemical Activation o

121	Single Crystalline Film of Hexagonal Boron Nitride Atomic Monolayer by Controlling Nucleation Seeds and Domains. <i>Scientific Reports</i> , <b>2015</b> , 5, 16159	4.9	60
120	Ab initio study of the effect of water adsorption on the carbon nanotube field-effect transistor. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 243110	3.4	60
119	Direct solvothermal synthesis of B/N-doped graphene. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 2398-401	16.4	57
118	Hollow Silicon Nanostructures via the Kirkendall Effect. <i>Nano Letters</i> , <b>2015</b> , 15, 6914-8	11.5	56
117	Microscopic mechanism of fullerene fusion. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	55
116	Negatively curved carbon as the anode for lithium ion batteries. <i>Carbon</i> , <b>2014</b> , 66, 39-47	10.4	54
115	The effect of metal cluster coatings on carbon nanotubes. <i>Nanotechnology</i> , <b>2006</b> , 17, 496-500	3.4	53
114	Effects of oxygen adsorption on carbon nanotube field emitters. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	52
113	Covalent 0D <b>I</b> D Heterostructuring of Co9S8 <b>M</b> oS2 for Enhanced Hydrogen Evolution in All pH Electrolytes. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002536	15.6	52
112	Phonon-driven spin-Floquet magneto-valleytronics in MoS. <i>Nature Communications</i> , <b>2018</b> , 9, 638	17.4	51
111	N-type graphene induced by dissociative Hladsorption at room temperature. <i>Scientific Reports</i> , <b>2012</b> , 2, 690	4.9	51
110	Postsynthetic Exchanges of the Pillaring Ligand in Three-Dimensional Metal <b>©</b> rganic Frameworks. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 1047-1054	9.6	50
109	Nanoporous In-MOF with multiple one-dimensional pores. <i>Chemical Communications</i> , <b>2009</b> , 4953-5	5.8	48
108	Complementary hydrogen bonding between a clicked C3-symmetric triazole derivative and carboxylic acids for columnar liquid-crystalline assemblies. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 5737-40	16.4	47
107	Extremely large perpendicular magnetic anisotropy of an Fe(001) surface capped by 5d transition metal monolayers: A density functional study. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	46
106	ZnO nanoparticle growth on single-walled carbon nanotubes by atomic layer deposition and a consequent lifetime elongation of nanotube field emission. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 263104	3.4	46
105	Catalytic transparency of hexagonal boron nitride on copper for chemical vapor deposition growth of large-area and high-quality graphene. <i>ACS Nano</i> , <b>2014</b> , 8, 5478-83	16.7	43
104	Role of Graphene in Water-Assisted Oxidation of Copper in Relation to Dry Transfer of Graphene.  Chemistry of Materials, 2017, 29, 4546-4556	9.6	41

# (2014-2000)

103	Electronic structure and mechanical stability of the graphitic honeycomb lattice. <i>Physical Review B</i> , <b>2000</b> , 62, 7614-7618	3.3	41
102	Ab Initio Study of Thin OxideMetal Overlayers as an Inverse Catalytic System for Dioxygen Reduction and Enhanced CO Tolerance. <i>ACS Catalysis</i> , <b>2014</b> , 4, 4074-4080	13.1	40
101	Effect of sulphur vacancy on geometric and electronic structure of MoS2 induced by molecular hydrogen treatment at room temperature. <i>RSC Advances</i> , <b>2013</b> , 3, 18424	3.7	40
100	Critical Role of Cations in Lithium Sites on Extended Electrochemical Reversibility of Co-Rich Layered Oxide. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605578	24	38
99	Electronic structure calculations of metal-nanotube contacts with or without oxygen adsorption. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	37
98	Adsorption-induced conversion of the carbon nanotube field effect transistor from ambipolar to unipolar behavior. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 093105	3.4	37
97	Exploitable Magnetic Anisotropy of the Two-Dimensional Magnet Crl. <i>Nano Letters</i> , <b>2020</b> , 20, 929-935	11.5	37
96	Ferromagnetism at the edges of the stacked graphitic fragments: an ab initio study. <i>Chemical Physics Letters</i> , <b>2004</b> , 398, 207-211	2.5	36
95	Stability of hydrogenation states of graphene and conditions for hydrogen spillover. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	35
94	Unusual transport characteristics of nitrogen-doped single-walled carbon nanotubes. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 043113	3.4	35
93	A physical organogel electrolyte: characterized by in situ thermo-irreversible gelation and single-ion-predominent conduction. <i>Scientific Reports</i> , <b>2013</b> , 3, 1917	4.9	34
92	Tip-functionalized carbon nanotubes under electric fields. <i>Physical Review B</i> , <b>2003</b> , 68,	3.3	34
91	Inaccuracy of density functional theory calculations for dihydrogen binding energetics onto Ca cation centers. <i>Physical Review Letters</i> , <b>2009</b> , 103, 216102	7.4	32
90	Activation of CO and CO2 on homonuclear boron bonds of fullerene-like BN cages: first principles study. <i>Scientific Reports</i> , <b>2015</b> , 5, 17460	4.9	30
89	Spin-Split Band Hybridization in Graphene Proximitized with RuCl Nanosheets. <i>Nano Letters</i> , <b>2019</b> , 19, 4659-4665	11.5	29
88	Band gap sensitivity of bromine adsorption at carbon nanotubes. <i>Chemical Physics Letters</i> , <b>2005</b> , 403, 135-139	2.5	29
87	Energetics of large carbon clusters: Crossover from fullerenes to nanotubes. <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	29
86	Atomically resolved orientational ordering of C60 molecules on epitaxial graphene on Cu(111). <i>Nanoscale</i> , <b>2014</b> , 6, 11835-40	7.7	27

85	First-Principles Identification of Iodine Exchange Mechanism in Iodide Ionic Liquid. <i>Journal of Physical Chemistry Letters</i> , <b>2012</b> , 3, 3065-9	6.4	26
84	Effect of Shuttling Catalyst on the Migration of Hydrogen Adatoms: A Strategy for the Facile Hydrogenation of Graphene. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 24696-24701	3.8	26
83	Controllable modification of transport properties of single-walled carbon nanotube field effect transistors with in situ Al decoration. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 153113	3.4	26
82	Realistic adsorption geometries and binding affinities of metal nanoparticles onto the surface of carbon nanotubes. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 073105	3.4	24
81	Carbon-Heteroatom Bond Formation by an Ultrasonic Chemical Reaction for Energy Storage Systems. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702747	24	23
80	Coordination Polymers for High-Capacity Li-Ion Batteries: Metal-Dependent Solid-State Reversibility. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 22110-22118	9.5	22
79	Development of Double-Perovskite Compounds as Cathode Materials for Low-Temperature Solid Oxide Fuel Cells. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 13280-13283	3.6	20
78	Fabrication of n-type carbon nanotube field-effect transistors by Al doping. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 103503	3.4	20
77	Atomic-Level Customization of 4 in. Transition Metal Dichalcogenide Multilayer Alloys for Industrial Applications. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901405	24	19
76	Jahn-Teller driven perpendicular magnetocrystalline anisotropy in metastable ruthenium. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	19
75	One-dimensional hexagonal boron nitride conducting channel. <i>Science Advances</i> , <b>2020</b> , 6, eaay4958	14.3	19
74	Improving the sensitivity of carbon nanotube sensors by benzene functionalization. <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 147, 316-321	8.5	19
73	Electron emission originated from free-electron-like states of alkali-doped boron-nitride nanotubes. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 17012-5	16.4	19
72	Prediction of ferroelectricity-driven Berry curvature enabling charge- and spin-controllable photocurrent in tin telluride monolayers. <i>Nature Communications</i> , <b>2019</b> , 10, 3965	17.4	18
71	Real-Time Propagation via Time-Dependent Density Functional Theory Plus the Hubbard U Potential for Electron-Atom Coupled Dynamics Involving Charge Transfer. <i>Journal of Chemical Theory and Computation</i> , <b>2016</b> , 12, 201-8	6.4	18
70	Dissimilar anisotropy of electron versus hole bulk transport in anatase TiO2: Implications for photocatalysis. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	17
69	Formation of polybromine anions and concurrent heavy hole doping in carbon nanotubes. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 093502	3.4	17
68	Influence of metal work function on the position of the Dirac point of graphene field-effect transistors. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 243105	3.4	16

## (2009-2012)

67	Strong ferromagnetism in Pt-coated ZnCoO: The role of interstitial hydrogen. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 172409	3.4	16
66	Rectifying the Optical-Field-Induced Current in Dielectrics: Petahertz Diode. <i>Physical Review Letters</i> , <b>2016</b> , 116, 057401	7.4	15
65	Screening of suitable cationic dopants for solar absorber material CZTS/Se: A first principles study. <i>Scientific Reports</i> , <b>2019</b> , 9, 15983	4.9	15
64	MetalBrganic frameworks constructed from flexible ditopic ligands: conformational diversity of an aliphatic ligand. <i>New Journal of Chemistry</i> , <b>2013</b> , 37, 4130	3.6	15
63	Effects of defects and non-coordinating molecular overlayers on the work function of graphene and energy-level alignment with organic molecules. <i>Carbon</i> , <b>2012</b> , 50, 851-856	10.4	15
62	Air-stable n-type operation of Gd-contacted carbon nanotube field effect transistors. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 123106	3.4	15
61	Fabrication of n-type nanotube transistors with large-work-function electrodes. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 092113	3.4	14
60	Carbon nanotube diode fabricated by contact engineering with self-assembled molecules. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 243115	3.4	14
59	Metallization of the semiconducting carbon nanotube by encapsulated bromine molecules. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2005</b> , 29, 693-697	3	14
58	In situ electrochemically synthesized Pt-MoO3N nanostructure catalysts for efficient hydrogen evolution reaction. <i>Journal of Catalysis</i> , <b>2020</b> , 381, 1-13	7.3	14
57	An oxygen reduction catalytic process through superoxo adsorption states on n-type doped h-BN: A first-principles study. <i>Current Applied Physics</i> , <b>2015</b> , 15, 727-732	2.6	13
56	Metalated graphene nanoplatelets and their uses as anode materials for lithium-ion batteries. <i>2D Materials</i> , <b>2017</b> , 4, 014002	5.9	13
55	First-principles study of the effect of charge on the stability of a diamond nanocluster surface. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	13
54	Electron-transfer transparency of graphene: Fast reduction of metal ions on graphene-covered donor surfaces. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2015</b> , 9, 180-186	2.5	12
53	Pressure-dependent Schottky barrier at the metal-nanotube contact. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 013112	3.4	12
52	Direct Solvothermal Synthesis of B/N-Doped Graphene. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 2430-2433	3.6	11
51	Complementary Hydrogen Bonding Between a Clicked C3-Symmetric Triazole Derivative and Carboxylic Acids for Columnar Liquid-Crystalline Assemblies. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 5855-5858	3.6	11
50	Ab initio study of noncovalent sidewall functionalization of carbon nanotubes. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 243110	3.4	11

49	Field emission properties of carbon nanotubes coated with boron nitride. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2003</b> , 3, 179-83	1.3	11
48	Magnetic, elastic and optical properties of zinc peroxide (ZnO2): First principles study. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 620, 156-163	5.7	10
47	Exploring the correlation between MoS2 nanosheets and 3D graphene-based nanostructures for reversible lithium storage. <i>Applied Surface Science</i> , <b>2018</b> , 459, 98-104	6.7	10
46	First-Principles Calculations on BoronNitride Nanotubes. <i>Journal of the Physical Society of Japan</i> , <b>2004</b> , 73, 2469-2472	1.5	10
45	Unraveling materials Berry curvature and Chern numbers from real-time evolution of Bloch states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 4135-4140	11.5	10
44	Forming a three-dimensional porous organic network via solid-state explosion of organic single crystals. <i>Nature Communications</i> , <b>2017</b> , 8, 1599	17.4	9
43	Enhanced binding strength between metal nanoclusters and carbon nanotubes with an atomic nickel defect. <i>Nanotechnology</i> , <b>2012</b> , 23, 205204	3.4	9
42	Synergetic interplay between pressure and surface chemistry for the conversion of sp2-bonded carbon layers into sp3-bonded carbon films. <i>Carbon</i> , <b>2016</b> , 106, 158-163	10.4	9
41	Ab initio study of Kubas-type dihydrogen fixation onto d-orbital states of Ca adatoms. <i>Chemical Physics Letters</i> , <b>2011</b> , 513, 256-260	2.5	8
40	Theoretical study on porphyrin based covalent organic polyhedra as a hydrogen storage.  International Journal of Hydrogen Energy, 2013, 38, 6234-6240	6.7	7
39	First-Principles Studies of Metal-Dispersed Graphene Fragments for Hydrogen Storage. <i>Journal of the Korean Physical Society</i> , <b>2008</b> , 52, 1217-1220	0.6	7
38	Anomalous K-Point Phonons in Noble Metal/Graphene Heterostructure Activated by Localized Surface Plasmon Resonance. <i>ACS Nano</i> , <b>2018</b> , 12, 12733-12740	16.7	7
37	Identification of the Mott Insulating Charge Density Wave State in 1T-TaS_{2}. <i>Physical Review Letters</i> , <b>2021</b> , 126, 196406	7.4	6
36	Effect of charge-transfer complex on the energy level alignment between graphene and organic molecules. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 183102	3.4	5
35	Band-gap sensitive adsorption of fluorine molecules on sidewalls of carbon nanotubes: an ab initio study. <i>Nanotechnology</i> , <b>2006</b> , 17, 5862-5865	3.4	5
34	Si doped T6 carbon structure as an anode material for Li-ion batteries: An ab initio study. <i>Scientific Reports</i> , <b>2016</b> , 6, 37822	4.9	5
33	Paramagnetic Carbon Nanosheets with Random Hole Defects and Oxygenated Functional Groups. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 11670-11675	16.4	4
32	Unusually Stable Triazine-based Organic Superstructures. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 7413-7	16.4	4

### (2018-2014)

31	The effect of the stacking fault on the diffusion of chemisorbed hydrogen atoms inside few-layered graphene. <i>RSC Advances</i> , <b>2014</b> , 4, 9223	3.7	4
30	Microscopic nature of mobile fluoride anions on sp2 carbon surfaces. <i>Chemical Physics Letters</i> , <b>2013</b> , 570, 85-89	2.5	4
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