

Chandra Sekhar Rout

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

170
papers

7,022
citations

41
h-index

79
g-index

193
ext. papers

8,592
ext. citations

5.1
avg, IF

6.8
L-index

#	Paper	IF	Citations
170	Graphene-based electrochemical supercapacitors. <i>Journal of Chemical Sciences</i> , 2008 , 120, 9-13	1.8	671
169	Supercapacitor electrodes based on layered tungsten disulfide-reduced graphene oxide hybrids synthesized by a facile hydrothermal method. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 11427-33	9.5	332
168	Changes in the electronic structure and properties of graphene induced by molecular charge-transfer. <i>Chemical Communications</i> , 2008 , 5155-7	5.8	313
167	Recent developments in 2D layered inorganic nanomaterials for sensing. <i>Nanoscale</i> , 2015 , 7, 13293-312	7.7	305
166	Synthesis and characterization of patronite form of vanadium sulfide on graphitic layer. <i>Journal of the American Chemical Society</i> , 2013 , 135, 8720-5	16.4	235
165	Graphene-based hybrid materials and devices for biosensing. <i>Advanced Drug Delivery Reviews</i> , 2011 , 63, 1352-60	18.5	230
164	Hydrogen and ethanol sensors based on ZnO nanorods, nanowires and nanotubes. <i>Chemical Physics Letters</i> , 2006 , 418, 586-590	2.5	215
163	H ₂ S sensors based on tungsten oxide nanostructures. <i>Sensors and Actuators B: Chemical</i> , 2008 , 128, 488-493	4.3	192
162	Superior field emission properties of layered WS ₂ -RGO nanocomposites. <i>Scientific Reports</i> , 2013 , 3, 32824	4.9	182
161	Temperature dependent Raman spectroscopy of chemically derived few layer MoS ₂ and WS ₂ nanosheets. <i>Applied Physics Letters</i> , 2014 , 104, 081911	3.4	160
160	Ammonia sensors based on metal oxide nanostructures. <i>Nanotechnology</i> , 2007 , 18, 205504	3.4	158
159	Effects of charge transfer interaction of graphene with electron donor and acceptor molecules examined using Raman spectroscopy and cognate techniques. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 472204	1.8	134
158	Conducting polymers: a comprehensive review on recent advances in synthesis, properties and applications. <i>RSC Advances</i> , 2021 , 11, 5659-5697	3.7	124
157	Extraordinary Sensitivity of the Electronic Structure and Properties of Single-Walled Carbon Nanotubes to Molecular Charge-Transfer. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 13053-13056	3.8	114
156	Electrodeposition of spinel MnCo ₂ O ₄ nanosheets for supercapacitor applications. <i>Nanotechnology</i> , 2015 , 26, 455401	3.4	110
155	Lithium reaction mechanism and high rate capability of VS ₄ /graphene nanocomposite as an anode material for lithium batteries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10847-10853	13	100
154	Enhanced field emission properties of doped graphene nanosheets with layered SnS ₂ . <i>Applied Physics Letters</i> , 2014 , 105, 043109	3.4	93

153	Hydrogen sensors based on ZnO nanoparticles. <i>Solid State Communications</i> , 2006 , 138, 136-138	1.6	92
152	Room temperature hydrogen and hydrocarbon sensors based on single nanowires of metal oxides. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 2777-2782	3	89
151	Urea-Assisted Room Temperature Stabilized Metastable NiMoO: Experimental and Theoretical Insights into its Unique Bifunctional Activity toward Oxygen Evolution and Supercapacitor. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 9640-9653	9.5	86
150	High-sensitivity hydrocarbon sensors based on tungsten oxide nanowires. <i>Journal of Materials Chemistry</i> , 2006 , 16, 3936		86
149	Electrodeposited Nickel Cobalt Manganese based mixed sulfide nanosheets for high performance supercapacitor application. <i>Microporous and Mesoporous Materials</i> , 2017 , 244, 101-108	5.3	84
148	SnS ₂ nanoflakes for efficient humidity and alcohol sensing at room temperature. <i>RSC Advances</i> , 2016 , 6, 105421-105427	3.7	84
147	Freeze-dried WS ₂ composites with low content of graphene as high-rate lithium storage materials. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 14548	13	81
146	Facile Electrochemical Synthesis of Porous Manganese-Cobalt-Sulfide Based Ternary Transition Metal Sulfide Nanosheets Architectures for High Performance Energy Storage Applications. <i>Electrochimica Acta</i> , 2016 , 220, 57-66	6.7	75
145	High Performance Non-enzymatic Glucose Sensor Based on One-Step Electrodeposited Nickel Sulfide. <i>Chemistry - A European Journal</i> , 2015 , 21, 9355-9	4.8	73
144	Enhanced Nonenzymatic Glucose-Sensing Properties of Electrodeposited NiCoO-Pd Nanosheets: Experimental and DFT Investigations. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 23894-23903	9.5	67
143	Electrodeposited spinel NiCo ₂ O ₄ nanosheet arrays for glucose sensing application. <i>RSC Advances</i> , 2015 , 5, 74585-74591	3.7	63
142	Supercapacitors based on patronite/reduced graphene oxide hybrids: experimental and theoretical insights. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18874-18881	13	55
141	Electrochemical synthesis of a ternary transition metal sulfide nanosheets on nickel foam and energy storage application. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 154-161	5.7	55
140	3D cuboidal vanadium diselenide embedded reduced graphene oxide hybrid structures with enhanced supercapacitor properties. <i>Chemical Communications</i> , 2016 , 53, 228-231	5.8	54
139	Oxidative and membrane stress-mediated antibacterial activity of WS ₂ and rGO-WS ₂ nanosheets. <i>RSC Advances</i> , 2015 , 5, 74726-74733	3.7	51
138	Flexible and wearable electrochemical biosensors based on two-dimensional materials: Recent developments. <i>Analytical and Bioanalytical Chemistry</i> , 2021 , 413, 727-762	4.4	49
137	Enhanced field emission of plasma treated multilayer graphene. <i>Applied Physics Letters</i> , 2015 , 107, 123503	3	48
136	Synthesis of self-assembled and hierarchical palladium-CNTs-reduced graphene oxide composites for enhanced field emission properties. <i>Materials and Design</i> , 2017 , 122, 110-117	8.1	46

135	Field emission properties of ZnO nanosheet arrays. <i>Applied Physics Letters</i> , 2014 , 105, 233101	3.4	45
134	Facile Production of Mesoporous WO ₃ -rGO Hybrids for High-Performance Supercapacitor Electrodes: An Experimental and Computational Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 2350-2359	8.3	45
133	Metallic Few-Layer Flowerlike VS ₂ Nanosheets as Field Emitters. <i>European Journal of Inorganic Chemistry</i> , 2014 , 2014, 5331-5336	2.3	44
132	Field emission properties of spinel ZnCo ₂ O ₄ microflowers. <i>RSC Advances</i> , 2015 , 5, 5372-5378	3.7	43
131	Unipolar assembly of zinc oxide rods manifesting polarity-driven collective luminescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 13588-92	11.5	43
130	Enhanced Pseudocapacitance of MoO ₃ -Reduced Graphene Oxide Hybrids with Insight from Density Functional Theory Investigations. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18992-19001	3.8	42
129	Electroluminescence and rectifying properties of heterojunction LEDs based on ZnO nanorods. <i>Nanotechnology</i> , 2008 , 19, 285203	3.4	41
128	Facile electrochemical growth of spinel copper cobaltite nanosheets for non-enzymatic glucose sensing and supercapacitor applications. <i>Microporous and Mesoporous Materials</i> , 2017 , 244, 226-234	5.3	40
127	Rare earth metal oxide (RE ₂ O ₃ ; RE = Nd, Gd, and Yb) incorporated polyindole composites: gravimetric and volumetric capacitive performance for supercapacitor applications. <i>New Journal of Chemistry</i> , 2018 , 42, 5295-5308	3.6	39
126	Pt-nanoparticle functionalized carbon nano-onions for ultra-high energy supercapacitors and enhanced field emission behaviour. <i>RSC Advances</i> , 2015 , 5, 80990-80997	3.7	38
125	Negative infrared photocurrent response in layered WS ₂ /reduced graphene oxide hybrids. <i>Applied Physics Letters</i> , 2014 , 105, 243502	3.4	37
124	Facile and single step synthesis of three dimensional reduced graphene oxide-NiCo ₂ O ₄ composite using microwave for enhanced electron field emission properties. <i>Applied Surface Science</i> , 2017 , 416, 259-265	6.7	36
123	Spectral analysis of the emission current noise exhibited by few layer WS ₂ nanosheets emitter. <i>Ultramicroscopy</i> , 2015 , 149, 51-7	3.1	36
122	Synthesis of chemically bonded CNT/graphene heterostructure arrays. <i>RSC Advances</i> , 2012 , 2, 8250	3.7	36
121	One-Step Electrodeposition of NiCo ₂ S ₄ Nanosheets on Patterned Platinum Electrodes for Non-Enzymatic Glucose Sensing. <i>Chemistry - an Asian Journal</i> , 2016 , 11, 1837-41	4.5	36
120	Pd-Doped WO ₃ Nanostructures as Potential Glucose Sensor with Insight from Electronic Structure Simulations. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 2737-2746	3.4	35
119	Highly sensitive and selective electrochemical dopamine sensing properties of multilayer graphene nanobelts. <i>Nanotechnology</i> , 2016 , 27, 075504	3.4	35
118	Electrodeposition of ZnCo ₂ O ₄ nanoparticles for biosensing applications. <i>RSC Advances</i> , 2015 , 5, 79397-79404	3.7	33

117	Two-dimensional transition metal phosphorous trichalcogenides (MPX ₃): a review on emerging trends, current state and future perspectives. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 2560-2591	13	33
116	High-Energy-Density Supercapacitors Based on Patronite/Single-Walled Carbon Nanotubes/Reduced Graphene Oxide Hybrids. <i>European Journal of Inorganic Chemistry</i> , 2016 , 2016, 259-265	2.25	32
115	Au nanoparticles on graphitic petal arrays for surface-enhanced Raman spectroscopy. <i>Applied Physics Letters</i> , 2010 , 97, 133108	3.4	31
114	Multifunctional spinel MnCo ₂ O ₄ based materials for energy storage and conversion: a review on emerging trends, recent developments and future perspectives. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 3095-3124	13	31
113	Three-dimensional NiCoP hollow spheres: an efficient electrode material for hydrogen evolution reaction and supercapacitor applications.. <i>RSC Advances</i> , 2020 , 10, 4650-4656	3.7	30
112	Electrochemical sensing of hydrazine using multilayer graphene nanobelts. <i>RSC Advances</i> , 2016 , 6, 11329-11334	3.7	30
111	Ethanol and hydrogen sensors based on ZnO nanoparticles and nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2007 , 7, 1923-9	1.3	30
110	Tuning the pure monoclinic phase of WO ₃ and WO ₃ -Ag nanostructures for non-enzymatic glucose sensing application with theoretical insight from electronic structure simulations. <i>Journal of Applied Physics</i> , 2018 , 123, 024701	2.5	29
109	Facile synthesis of Ag nanowire/GO composites and their promising field emission performance. <i>RSC Advances</i> , 2015 , 5, 41887-41893	3.7	27
108	Synthesis of reduced graphene oxide nanosheet-supported agglomerated cobalt oxide nanoparticles and their enhanced electron field emission properties. <i>New Journal of Chemistry</i> , 2017 , 41, 8431-8436	3.6	27
107	Self-assembled flower-like ZnCo ₂ O ₄ hierarchical superstructures for high capacity supercapacitors. <i>RSC Advances</i> , 2015 , 5, 86551-86557	3.7	26
106	Superior non-enzymatic glucose sensing properties of Ag-/Au-NiCoO nanosheets with insight from electronic structure simulations. <i>Analyst, The</i> , 2018 , 143, 571-579	5	26
105	Efficient sono-photocatalytic degradation of methylene blue using nickel molybdate nanosheets under diffused sunlight. <i>Journal of Environmental Chemical Engineering</i> , 2017 , 5, 2997-3004	6.8	24
104	Carbon nanowalls amplify the surface-enhanced Raman scattering from Ag nanoparticles. <i>Nanotechnology</i> , 2011 , 22, 395704	3.4	24
103	Anisotropic quasi-one-dimensional layered transition-metal trichalcogenides: synthesis, properties and applications.. <i>RSC Advances</i> , 2020 , 10, 36413-36438	3.7	24
102	High performance supercapacitor electrodes based on spinel NiCoO@MWCNT composite with insights from density functional theory simulations. <i>Journal of Chemical Physics</i> , 2020 , 152, 064706	3.9	23
101	Glucose sensing and low-threshold field emission from MnCo ₂ O ₄ nanosheets. <i>RSC Advances</i> , 2016 , 6, 29734-29740	3.7	23
100	Recent developments in self-powered smart chemical sensors for wearable electronics. <i>Nano Research</i> , 2021 , 14, 3669	10	23

99	Room-temperature ferromagnetism in graphitic petal arrays. <i>Nanoscale</i> , 2011 , 3, 900-3	7.7	22
98	VSe ₂ -reduced graphene oxide as efficient cathode material for field emission. <i>Journal of Physics and Chemistry of Solids</i> , 2019 , 128, 384-390	3.9	22
97	A review on mechanisms and recent developments in p-n heterojunctions of 2D materials for gas sensing applications. <i>Journal of Materials Science</i> , 2021 , 56, 9575-9604	4.3	22
96	Enhanced electron field emission from NiCo ₂ O ₄ nanosheet arrays. <i>Materials Research Express</i> , 2015 , 2, 095011	1.7	21
95	Recent developments in the photodetector applications of Schottky diodes based on 2D materials. <i>Journal of Materials Chemistry C</i> ,	7.1	21
94	Flexible metal-free supercapacitors based on multilayer graphene electrodes. <i>Electrochimica Acta</i> , 2018 , 285, 241-253	6.7	20
93	Spinel NiCo ₂ O ₄ Nanorods for Supercapacitor Applications. <i>American Journal of Engineering and Applied Sciences</i> , 2015 , 8, 371-379	0.4	20
92	Low threshold field electron emission from solvothermally synthesized WO _{2.72} nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 98, 751-756	2.6	20
91	Physicochemical properties and supercapacitor behavior of electrochemically synthesized few layered graphene nanosheets. <i>Journal of Solid State Electrochemistry</i> , 2016 , 20, 3415-3428	2.6	20
90	Recent advances in 2D black phosphorus based materials for gas sensing applications. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 3773-3794	7.1	20
89	Photo-powered integrated supercapacitors: a review on recent developments, challenges and future perspectives. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8248-8278	13	20
88	Synergistic electrocatalytic activity of a spinel ZnCo ₂ O ₄ /reduced graphene oxide hybrid towards oxygen reduction reaction. <i>Journal of Solid State Electrochemistry</i> , 2016 , 20, 285-291	2.6	19
87	Improved Nonenzymatic Glucose Sensing Properties of Pd/MnO Nanosheets: Synthesis by Facile Microwave-Assisted Route and Theoretical Insight from Quantum Simulations. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 7636-7646	3.4	19
86	A comparative experimental and theoretical investigation on energy storage performance of CoSe ₂ , NiSe ₂ and MnSe ₂ nanostructures. <i>Applied Materials Today</i> , 2020 , 19, 100568	6.6	19
85	Optimized performance of nickel in crystal-layered arrangement of NiFe ₂ O ₄ /rGO hybrid for high-performance oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 2617-2629	6.7	19
84	Recent advances in engineered metal oxide nanostructures for supercapacitor applications: experimental and theoretical aspects. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 17643-17700	13	19
83	Superhydrophobic to hydrophilic transition of multi-walled carbon nanotubes induced by Na ⁺ ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 413, 31-36	1.2	18
82	Temperature and pressure dependent Raman spectroscopy of plasma treated multilayer graphene nanosheets. <i>Diamond and Related Materials</i> , 2018 , 84, 146-156	3.5	18

81	Schottky diodes based on 2D materials for environmental gas monitoring: a review on emerging trends, recent developments and future perspectives. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 395-416	7.1	18
80	Enhanced field emission performance of NiMoO ₄ nanosheets by tuning the phase. <i>Applied Surface Science</i> , 2017 , 418, 270-274	6.7	17
79	Effect of plasma treatment on multilayer graphene: X-ray photoelectron spectroscopy, surface morphology investigations and work function measurements. <i>RSC Advances</i> , 2016 , 6, 48843-48850	3.7	17
78	Two-Dimensional Layered Metallic VSe /SWCNTs/rGO Based Ternary Hybrid Materials for High Performance Energy Storage Applications. <i>Chemistry - A European Journal</i> , 2020 , 26, 6662-6669	4.8	17
77	Recent Developments on Emerging Properties, Growth Approaches, and Advanced Applications of Metallic 2D Layered Vanadium Dichalcogenides. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901682	4.6	16
76	Stable Field Emission from Layered MoS ₂ Nanosheets in High Vacuum and Observation of 1/f Noise. <i>Nanomaterials and Nanotechnology</i> , 2015 , 5, 10	2.9	16
75	MoS ₂ nanoparticles and h-BN nanosheets from direct exfoliation of bulk powder: one-step synthesis method. <i>Materials Research Express</i> , 2014 , 1, 035038	1.7	15
74	Electrochemical biosensors based on Ti ₃ C ₂ T _x MXene: future perspectives for on-site analysis. <i>Current Opinion in Electrochemistry</i> , 2021 , 30, 100782	7.2	15
73	The electrochemical 4-chlorophenol sensing properties of a plasma-treated multilayer graphene modified photolithography patterned platinum electrode. <i>RSC Advances</i> , 2016 , 6, 105920-105929	3.7	14
72	Facile Hydrothermal Synthesis of MnWO ₄ Nanorods for Non-Enzymatic Glucose Sensing and Supercapacitor Properties with Insights from Density Functional Theory Simulations. <i>ChemistrySelect</i> , 2017 , 2, 5707-5715	1.8	14
71	Energy storage performance of 2D MoS and carbon nanotube heterojunctions in symmetric and asymmetric configuration. <i>Nanotechnology</i> , 2021 , 32, 155403	3.4	14
70	MnO ₂ polymorph selection for non-enzymatic glucose detection: An integrated experimental and density functional theory investigation. <i>Applied Surface Science</i> , 2019 , 487, 1033-1042	6.7	13
69	Electrochemical sensing of bisphenol using a multilayer graphene nanobelt modified photolithography patterned platinum electrode. <i>Nanotechnology</i> , 2016 , 27, 375504	3.4	13
68	Synthesis of CuSbS Nanoplates and CuSbS-CuSbS Nanocomposite: Effect of Sulfur Source on Different Phase Formation. <i>Inorganic Chemistry</i> , 2019 , 58, 15291-15302	5.1	13
67	Understanding the charge storage mechanism of supercapacitors: in situ/operando spectroscopic approaches and theoretical investigations. <i>Journal of Materials Chemistry A</i> ,	13	13
66	The role of carbon nanotubes in enhanced charge storage performance of VSe: experimental and theoretical insight from DFT simulations.. <i>RSC Advances</i> , 2020 , 10, 31712-31719	3.7	13
65	Advances in synthesis, properties and emerging applications of tin sulfides and its heterostructures. <i>Materials Chemistry Frontiers</i> , 2021 , 5, 516-556	7.8	13
64	Non-enzymatic glucose sensing properties of MoO ₃ nanorods: experimental and density functional theory investigations. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 475401	3	12

63	Enhanced energy storage performance and theoretical studies of 3D cuboidal manganese diselenides embedded with multiwalled carbon nanotubes. <i>Journal of Colloid and Interface Science</i> , 2021 , 598, 500-510	9.3	12
62	Spinel NiFeO nanoparticles decorated 2D TiC MXene sheets for efficient water splitting: Experiments and theories. <i>Journal of Colloid and Interface Science</i> , 2021 , 602, 232-241	9.3	12
61	Strong third-order nonlinear response and optical limiting of NiMoO_4 nanoparticles. <i>Journal of Applied Physics</i> , 2017 , 122, 013107	2.5	11
60	Synthesis of a 3D free standing crystalline NiSe matrix for electrochemical energy storage applications. <i>Dalton Transactions</i> , 2019 , 48, 16873-16881	4.3	11
59	Feasible strategies to promote the sensing performances of spinel MCo_2O_4 (M = Ni, Fe, Mn, Cu and Zn) based electrochemical sensors: a review. <i>Journal of Materials Chemistry C</i> ,	7.1	11
58	Electrical and hydrogen-sensing characteristics of field effect transistors based on nanorods of ZnO and WO_2 . <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 5652-8	1.3	10
57	Phase and Shape Dependent Nonenzymatic Glucose Sensing Properties of Nickel Molybdate. <i>ChemistrySelect</i> , 2016 , 1, 5187-5195	1.8	10
56	Comparative electrochemical energy storage performance of cobalt sulfide and cobalt oxide nanosheets: experimental and theoretical insights from density functional theory simulations. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 7903-7911	3.6	9
55	Experimental and density functional theory investigations of catechol sensing properties of ZnO/RGO nanocomposites. <i>Applied Surface Science</i> , 2019 , 495, 143588	6.7	9
54	Promising 2D/2D $\text{MoTe}_2/\text{Ti}_3\text{C}_2\text{Tx}$ Hybrid Materials for Boosted Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2021 , 4, 11886-11897	6.1	9
53	Facile Hydrothermal Synthesis, Field Emission and Electrochemical Properties of V_2O_5 and AgVO_3 Nanobelts. <i>Science of Advanced Materials</i> , 2010 , 2, 407-412	2.3	8
52	TiO nanoflowers based humidity sensor and cytotoxic activity.. <i>RSC Advances</i> , 2020 , 10, 29378-29384	3.7	8
51	Development of pristine and Au-decorated BiO/BiWO nanocomposites for supercapacitor electrodes.. <i>RSC Advances</i> , 2019 , 9, 32573-32580	3.7	8
50	Efficient Photoelectrocatalytic Activity of CuWO_4 Nanoplates towards the Oxidation of NADH Driven in Visible Light. <i>ChemistrySelect</i> , 2018 , 3, 9008-9012	1.8	7
49	Understanding the phase dependent energy storage performance of MnO_2 nanostructures. <i>Journal of Applied Physics</i> , 2019 , 126, 045112	2.5	7
48	Theoretical Insight on the Biosensing Applications of 2D Materials. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 11098-11122	3.4	7
47	Bifunctional WO_3 microrods decorated RGO composite as catechol sensor and optical limiter. <i>Applied Surface Science</i> , 2021 , 536, 147669	6.7	7
46	An experimental and computational study of enhanced charge storage capacity of chemical vapor deposited Ni_3S_2 -reduced graphene oxide hybrids. <i>Applied Surface Science</i> , 2019 , 497, 143789	6.7	6

45	Synthesis of GeSe nano plates and a reduced graphene oxide composite of GeSe for electrochemical energy storage application. <i>Dalton Transactions</i> , 2019 , 48, 15955-15961	4.3	6
44	High capacity reversible hydrogen storage in zirconium doped 2D-covalent triazine frameworks: Density Functional Theory investigations. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 14520-14531	6.7	6
43	Field emission applications of graphene-analogous two-dimensional materials: recent developments and future perspectives. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 11059-11078	7.1	6
42	Magnetic gas sensing: working principles and recent developments. <i>Nanoscale Advances</i> , 2021 , 3, 1551-1568	5.8	6
41	Experimental and theoretical realization of an advanced bifunctional 2D MnO ₂ electrode for supercapacitor and oxygen evolution reaction via defect engineering. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28028-28042	6.7	6
40	Nano-sized biosensors for medical applications 2012 , 65-102		5
39	A green and sustainable cellulosic-carbon-shielded Pd/MNP hybrid material for catalysis and energy storage applications. <i>Journal of Nanostructure in Chemistry</i> , 2021 , 11, 395-407	7.6	5
38	Future Prospects of 2D Materials for Sensing Applications 2019 , 481-482		4
37	1T-VS ₂ /MXene Hybrid as a Superior Electrode Material for Asymmetric Supercapacitors: Experimental and Theoretical Investigations. <i>ACS Applied Energy Materials</i> ,	6.1	4
36	Nanoribbons of 2D materials: A review on emerging trends, recent developments and future perspectives. <i>Coordination Chemistry Reviews</i> , 2022 , 453, 214335	23.2	4
35	Ternary VS ₂ /ZnS/CdS hybrids as efficient electrocatalyst for hydrogen evolution reaction: Experimental and theoretical insights. <i>AIP Advances</i> , 2021 , 11, 105010	1.5	4
34	Facile synthesis of manganese-doped 2D vanadium diselenide nanosheets for high-performance supercapacitor applications. <i>Emergent Materials</i> , 2021 , 4, 1037-1046	3.5	4
33	Stabilization of Orthorhombic CoSe ₂ by 2D-rGO/MWCNT Heterostructures for Efficient Hydrogen Evolution Reaction and Flexible Energy Storage Device Applications. <i>ACS Applied Energy Materials</i> ,	6.1	4
32	Heterostructured Metallic 1T-VSe ₂ /Ti ₃ C ₂ T _x MXene Nanosheets for Energy Storage. <i>ACS Applied Nano Materials</i> , 2022 , 5, 4423-4436	5.6	4
31	Partially Graphitized Iron/Carbon Hybrid Composite as an Electrochemical Supercapacitor Material. <i>ChemElectroChem</i> , 2020 , 7, 1928-1934	4.3	3
30	Fundamentals and Properties of 2D Materials in General and Sensing Applications 2019 , 5-24		3
29	Self-charging supercapacitors for smart electronic devices: a concise review on the recent trends and future sustainability. <i>Journal of Materials Science</i> , 2022 , 57, 4399-4440	4.3	3
28	Microfluidic sensors based on two-dimensional materials for chemical and biological assessments. <i>Materials Advances</i> ,	3.3	3

27	NHC-Pd complex heterogenized on graphene oxide for cross-coupling reactions and supercapacitor applications. <i>Applied Organometallic Chemistry</i> , 2020 , 34, e5924	3.1	3
26	Co-Decorated Tellurium Nanotubes for Energy Storage Applications. <i>ACS Applied Nano Materials</i> , 2021 , 4, 9008-9021	5.6	3
25	Waste biomass-derived carbon-supported palladium-based catalyst for cross-coupling reactions and energy storage applications. <i>Applied Surface Science</i> , 2021 , 570, 151156	6.7	3
24	Iron-carbon nanohybrid particles as environmentally benign electrode for supercapacitor. <i>Journal of Solid State Electrochemistry</i> , 2017 , 21, 1665-1674	2.6	2
23	Transition Metal Dichalcogenides in Sensors 2019 , 293-329		2
22	Wearable and Flexible Sensors Based on 2D and Nanomaterials 2019 , 437-463		2
21	Vertically Aligned Graphene-Analogous Low-Dimensional Materials: A Review on Emerging Trends, Recent Developments, and Future Perspectives. <i>Advanced Materials Interfaces</i> , 2101959	4.6	2
20	2D Vanadium diselenide supported on reduced graphene oxide for water electrolysis: a comprehensive study in alkaline media. <i>Emergent Materials</i> , 2021 , 4, 1047-1053	3.5	2
19	Tuning the synergistic effects of MoS ₂ and spinel NiFe ₂ O ₄ nanostructures for high performance energy storage and conversion applications. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 3906-3917	5.8	2
18	Enrichment of the field emission properties of NiCo ₂ O ₄ nanostructures by UV/ozone treatment. <i>Materials Advances</i> , 2021 , 2, 2658-2666	3.3	2
17	Miniaturized energy storage: microsupercapacitor based on two-dimensional materials 2021 , 311-358		2
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