Nilesh Rajaram Chodankar

List of Publications by Year
in descending order

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82 papers	5,903 citations	81743 39 h-index	74018 75 g-index
82 all docs	82 docs citations	82 times ranked	6563 citing authors

#	Article	IF	Citations
1	Towards flexible solid-state supercapacitors for smart and wearable electronics. Chemical Society Reviews, 2018, 47, 2065-2129.	18.7	1,338
2	Dendritic Nanostructured Waste Copper Wires for High-Energy Alkaline Battery. Nano-Micro Letters, 2020, 12, 1.	14.4	556
3	True Meaning of Pseudocapacitors and Their Performance Metrics: Asymmetric versus Hybrid Supercapacitors. Small, 2020, 16, e2002806.	5.2	405
4	Low-cost flexible supercapacitors with high-energy density based on nanostructured MnO2 and Fe2O3 thin films directly fabricated onto stainless steel. Scientific Reports, 2015, 5, 12454.	1.6	192
5	Polyoxometalates (POMs): from electroactive clusters to energy materials. Energy and Environmental Science, 2021, 14, 1652-1700.	15.6	184
6	Synthetic approach from polypyrrole nanotubes to nitrogen doped pyrolyzed carbon nanotubes for asymmetric supercapacitors. Journal of Power Sources, 2016, 308, 158-165.	4.0	164
7	Cu2O as an emerging photocathode for solar water splitting - A status review. International Journal of Hydrogen Energy, 2019, 44, 21351-21378.	3.8	155
8	Flexible all-solid-state MnO2 thin films based symmetric supercapacitors. Electrochimica Acta, 2015, 165, 338-347.	2.6	135
9	Direct growth of FeCo2O4 nanowire arrays on flexible stainless steel mesh for high-performance asymmetric supercapacitor. NPG Asia Materials, 2017, 9, e419-e419.	3.8	108
10	A symmetric MnO2/MnO2 flexible solid state supercapacitor operating at 1.6V with aqueous gel electrolyte. Journal of Energy Chemistry, 2016, 25, 463-471.	7.1	102
11	Temperature dependent surface morphological modifications of hexagonal WO3 thin films for high performance supercapacitor application. Electrochimica Acta, 2017, 224, 397-404.	2.6	102
12	Ionically conducting PVAâ€“LiClO 4 gel electrolyte for high performance flexible solid state supercapacitors. Journal of Colloid and Interface Science, 2015, 460, 370-376.	5.0	89
13	An innovative concept of use of redox-active electrolyte in asymmetric capacitor based on MWCNTs/MnO2 and Fe2O3 thin films. Scientific Reports, 2016, 6, 39205.	1.6	89
14	Asymmetric Supercapacitors Based on Reduced Graphene Oxide with Different Polyoxometalates as Positive and Negative Electrodes. ChemSusChem, 2017, 10, 2742-2750.	3.6	89
15	Selfâ€Assembled Nickel Pyrophosphateâ€Decorated Amorphous Bimetal Hydroxides 2Dâ€onâ€2D Nanostructure for Highâ€Energy Solidâ€State Asymmetric Supercapacitor. Small, 2019, 15, e1901145.	5.2	80
16	Tungsten Nitride Nanodots Embedded Phosphorous Modified Carbon Fabric as Flexible and Robust Electrode for Asymmetric Pseudocapacitor. Small, 2019, 15, e1804104.	5.2	77
17	Interfaceâ€Engineered Nickel Cobaltite Nanowires through NiO Atomic Layer Deposition and Nitrogen Plasma for Highâ€Energy, Longâ€Cycleâ€Life Foldable Allâ€Solidâ€State Supercapacitors. Small, 2019, 15, e1803716.	5.2	75
18	Ultrathin Mesoporous RuCo₂O₄ Nanoflakes: An Advanced Electrode for Highâ€Performance Asymmetric Supercapacitors. ChemSusChem, 2017, 10, 1771-1782.	3.6	72

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19	High mass loading of h-WO3 and Î±-MnO2 on flexible carbon cloth for high-energy aqueous asymmetric supercapacitor. Electrochimica Acta, 2019, 299, 245-252.	2.6	61
20	Bendable Allâ€Solidâ€State Asymmetric Supercapacitors based on MnO₂ and Fe₂O₃ Thin Films. Energy Technology, 2015, 3, 625-631.	1.8	59
21	Asymmetric Supercapacitors based on Hybrid CuO@Reduced Graphene Oxide@Sponge versus Reduced Graphene Oxide@Sponge Electrodes. Energy Technology, 2015, 3, 168-176.	1.8	57
22	Alcohol mediated growth of Î±-MnO₂thin films from KMnO₄precursor for high performance supercapacitors. RSC Advances, 2014, 4, 61503-61513.	1.7	55
23	Hexagonal microrods architectured MoO3 thin film for supercapacitor application. Journal of Materials Science: Materials in Electronics, 2016, 27, 3312-3317.	1.1	54
24	Aqueous asymmetric supercapacitor based on RuO2-WO3 electrodes. Electrochimica Acta, 2019, 325, 134879.	2.6	53
25	All-redox solid-state supercapacitor with cobalt manganese oxide@bimetallic hydroxides and vanadium nitride@nitrogen-doped carbon electrodes. Chemical Engineering Journal, 2021, 405, 127029.	6.6	49
26	All Transition Metal Selenide Composed Highâ€Energy Solidâ€State Hybrid Supercapacitor. Small, 2022, 18, e2200248.	5.2	49
27	Enhanced electrochemical performance of monoclinic WO 3 thin film with redox additive aqueous electrolyte. Journal of Colloid and Interface Science, 2016, 483, 261-267.	5.0	48
28	Highly efficient and stable negative electrode for asymmetric supercapacitors based on graphene/FeCo2O4 nanocomposite hybrid material. Electrochimica Acta, 2019, 295, 195-203.	2.6	48
29	Rational Design of Graphene Derivatives for Electrochemical Reduction of Nitrogen to Ammonia. ACS Nano, 2021, 15, 17275-17298.	7.3	48
30	Supercapacitive properties of chemically deposited La 2 O 3 thin film. Ceramics International, 2016, 42, 2079-2084.	2.3	47
31	An aqueous high-performance hybrid supercapacitor with MXene and polyoxometalates electrodes. Chemical Engineering Journal, 2022, 427, 131854.	6.6	45
32	Interior design engineering of CuS architecture alteration with rise in reaction bath temperature for high performance symmetric flexible solid state supercapacitor. Journal of Industrial and Engineering Chemistry, 2017, 46, 91-102.	2.9	43
33	Molybdenum Nitride Nanocrystals Anchored on Phosphorus-Incorporated Carbon Fabric as a Negative Electrode for High-Performance Asymmetric Pseudocapacitor. IScience, 2019, 16, 50-62.	1.9	43
34	Twoâ€Dimensional Materials for Highâ€Energy Solidâ€State Asymmetric Pseudocapacitors with High Mass Loadings. ChemSusChem, 2020, 13, 1582-1592.	3.6	43
35	Carbon alternative pseudocapacitive V2O5 nanobricks and Î´-MnO2 nanoflakes @ Îâ€MnO2 nanowires hetero-phase for high-energy pseudocapacitor. Journal of Power Sources, 2020, 453, 227766.	4.0	43
36	An efficient far-red emitting Ba2LaNbO6:Mn4+ nanophosphor for forensic latent fingerprint detection and horticulture lighting applications. Ceramics International, 2020, 46, 9802-9809.	2.3	42

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37	Core-shell hetero-nanostructured 1D transition metal polyphosphates decorated 2D bimetallic layered double hydroxide for sustainable hybrid supercapacitor. Journal of Power Sources, 2020, 466, 228286.	4.0	42
38	One-pot facile synthesis and electrochemical evaluation of selenium enriched cobalt selenide nanotube for supercapacitor application. Ceramics International, 2021, 47, 15293-15306.	2.3	41
39	Low-cost superior symmetric solid-state supercapacitors based on MWCNTs/MnO 2 nanocomposite thin film. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 503-510.	2.7	40
40	Superfast Electrodeposition of Newly Developed RuCo₂O₄ Nanobelts over Lowâ€Cost Stainless Steel Mesh for Highâ€Performance Aqueous Supercapacitor. Advanced Materials Interfaces, 2018, 5, 1800283.	1.9	40
41	Hybrid material passivation approach to stabilize the silicon nanowires in aqueous electrolyte for high-energy efficient supercapacitor. Chemical Engineering Journal, 2019, 362, 609-618.	6.6	40
42	Chemically prepared La2Se3 nanocubes thin film for supercapacitor application. Journal of Colloid and Interface Science, 2016, 469, 318-324.	5.0	38
43	Potentiodynamic polarization assisted phosphorus-containing amorphous trimetal hydroxide nanofibers for highly efficient hybrid supercapacitors. Journal of Materials Chemistry A, 2020, 8, 5721-5733.	5.2	38
44	Ultrathin nickel sulfide nano-flames as an electrode for high performance supercapacitor; comparison of symmetric FSS-SCs and electrochemical SCs device. RSC Advances, 2016, 6, 68388-68401.	1.7	37
45	Fluorine Engineered Selfâ€Supported Ultrathin 2D Nickel Hydroxide Nanosheets as Highly Robust and Stable Bifunctional Electrocatalysts for Oxygen Evolution and Urea Oxidation Reactions. Small, 2022, 18, e2103326.	5.2	37
46	Large interspaced layered potassium niobate nanosheet arrays as an ultrastable anode for potassium ion capacitor. Energy Storage Materials, 2021, 34, 475-482.	9.5	33
47	Surface Modified Carbon Cloth via Nitrogen Plasma for Supercapacitor Applications. Journal of the Electrochemical Society, 2018, 165, A2446-A2450.	1.3	32
48	Highly energetic flexible all-solid-state asymmetric supercapacitor with Fe₂O₃and CuO thin films. RSC Advances, 2016, 6, 58839-58843.	1.7	31
49	Ni2P2O7 micro-sheets supported ultra-thin MnO2 nanoflakes: A promising positive electrode for stable solid-state hybrid supercapacitor. Electrochimica Acta, 2019, 319, 435-443.	2.6	31
50	Solution-free self-assembled growth of ordered tricopper phosphide for efficient and stable hybrid supercapacitor. Energy Storage Materials, 2021, 39, 194-202.	9.5	30
51	Insights into the interfacial nanostructuring of NiCo2S4 and their electrochemical activity for ultra-high capacity all-solid-state flexible asymmetric supercapacitors. Journal of Colloid and Interface Science, 2019, 557, 423-437.	5.0	29
52	Nitridation-induced in situ coupling of Ni-Co4N particles in nitrogen-doped carbon nanosheets for hybrid supercapacitors. Chemical Engineering Journal, 2022, 428, 131888.	6.6	28
53	Polypyrrole Nanopipes as a Promising Cathode Material for Liâ€ion Batteries and Liâ€ion Capacitors: Twoâ€inâ€One Approach. Energy Technology, 2019, 7, 193-200.	1.8	27
54	Fabrication of high performance flexible all-solid-state asymmetric supercapacitors with a three dimensional disc-like WO₃/stainless steel electrode. RSC Advances, 2016, 6, 113442-113451.	1.7	26

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55	Supercapacitors operated at extremely low environmental temperatures. Journal of Materials Chemistry A, 2021, 9, 26603-26627.	5.2	25
56	Graphene and molybdenum disulphide hybrids for energy applications: an update. Materials Today Advances, 2020, 6, 100053.	2.5	24
57	Electroactive Ultra-Thin rGO-Enriched FeMoO4 Nanotubes and MnO2 Nanorods as Electrodes for High-Performance All-Solid-State Asymmetric Supercapacitors. Nanomaterials, 2020, 10, 289.	1.9	23
58	One-Dimensional NiSeâ€“Se Hollow Nanotubular Architecture as a Binder-Free Cathode with Enhanced Redox Reactions for High-Performance Hybrid Supercapacitors. ACS Applied Materials & Interfaces, 2020, 12, 29302-29315.	4.0	22
59	2D-on-2D coreâ€“shell Co₃(PO₄)₂ stacked micropetals@Co₂Mo₃O₈ nanosheets and binder-free 2D CNTâ€“Ti₃C₂T_Xâ€“MXene electrodes for high-energy solid-state flexible supercapacitors. Journal of Materials Chemistry A, 2021, 9, 26135-26148.	5.2	22
60	Nanoâ€Microâ€Structured Nickelâ€Cobalt Hydroxide/Ni₂P₂O₇ Assembly on Nickel Foam: An Outstanding Electrocatalyst for Alkaline Oxygen Evolution Reaction. ChemCatChem, 2019, 11, 4256-4261.	1.8	20
61	Rationalized crystal structure augmented highly efficient far-red-emitting double perovskite niobate phosphor for indoor plant growth LED applications. Journal of Alloys and Compounds, 2022, 903, 163881.	2.8	20
62	Engineering Rhynchostylis retusa-like heterostructured Î±-nickel molybdate with enhanced redox properties for high-performance rechargeable asymmetric supercapacitors. Journal of Materials Chemistry A, 2019, 7, 26893-26904.	5.2	19
63	Nickel Cobaltite: A Positive Electrode Material for Hybrid Supercapacitors. ChemSusChem, 2021, 14, 5384-5398.	3.6	17
64	Electrochemical supercapacitor properties of highly porous sponge-like selenium thin films. International Journal of Hydrogen Energy, 2016, 41, 17453-17461.	3.8	16
65	Bottomâ€up Approach for Designing Cobalt Tungstate Nanospheres through Sulfur Amendment for Highâ€Performance Hybrid Supercapacitors. ChemSusChem, 2021, 14, 1602-1611.	3.6	16
66	Piezo-supercapacitors: A new paradigm of self-powered wellbeing and biomedical devices. Nano Energy, 2021, 90, 106607.	8.2	16
67	Hierarchically designed 3D Cu3N@Ni3N porous nanorod arrays: An efficient and robust electrode for high-energy solid-state hybrid supercapacitors. Applied Materials Today, 2021, 22, 100951.	2.3	15
68	Refurbished carbon materials from waste supercapacitors as industrial-grade electrodes: Empowering electronic waste. Energy Storage Materials, 2022, 49, 564-574.	9.5	15
69	Electrochemical behavior of chemically synthesized selenium thin film. Journal of Colloid and Interface Science, 2016, 469, 257-262.	5.0	14
70	Ligninâ€derived carbon nanofibersâ€laminated redoxâ€active â€mixed metal sulfides for highâ€energy rechargeable hybrid supercapacitors. International Journal of Energy Research, 2021, 45, 8018-8029.	2.2	14
71	Nano-dimensional iron tungstate for super high energy density symmetric supercapacitor with redox electrolyte. Journal of Solid State Electrochemistry, 2019, 23, 3459-3465.	1.2	11
72	Desired warm white light emission from a highly photostable and single-component Gd2TiO5:Dy3+/Eu3+ nanophosphors for indoor illuminations. Journal of Alloys and Compounds, 2021, 875, 160019.	2.8	11

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73	Fundamentals of Binary Metal Oxideâ€“Based Supercapacitors. , 2017, , 79-98.		9
74	Self-assembled samarium selenide nanorods as a new electrode material for reliable supercapacitors. Materials Letters, 2018, 223, 45-48.	1.3	8
75	Gamma irradiation: an efficient way to enhance current carrying properties of Ag/Ppy composite. Journal of Materials Science: Materials in Electronics, 2018, 29, 11151-11158.	1.1	8
76	Development of dumbbell-shaped La2Si2O7:Eu3+ nanocrystalline phosphors for solid-state lighting applications. Ceramics International, 2021, 47, 5812-5821.	2.3	8
77	CF4 plasma-treated porous silicon nanowire arrays laminated with MnO2 nanoflakes for asymmetric pseudocapacitors. Chemical Engineering Journal, 2021, 419, 129515.	6.6	8
78	Mesoporous design of ultrathin NiO nanosheet-coated vertically aligned hexagonal CoS nanoplate coreâ€“shell array for flexible all-solid-state supercapacitors. Journal of Alloys and Compounds, 2021, 863, 158064.	2.8	7
79	Surface modified zinc ferrite as a carbon-alternative negative electrode for high-energy hybrid supercapacitor. Ceramics International, 2021, 47, 16333-16341.	2.3	7
80	A durable high-energy implantable energy storage system with binder-free electrodes useable in body fluids. Journal of Materials Chemistry A, 2022, 10, 4611-4620.	5.2	5
81	Hierarchical layer to layer of ternary heterostructure: Nanograin nickel carbonate embedded layered <scp> NiMnO ₃ â€rGOâ€Co ₃ O ₄ </scp> composite array as a highâ€performance electrode for hybrid supercapacitors. International Journal of Energy Research, 2022, 46, 15066-15080.	2.2	3
82	All Redoxâ€active 2D MXene and 0D Phosphomolybdic Acid Nanoclustersâ€Anchored Polypyrrole Nanotubes for Highâ€Performance Aqueous Hybrid Supercapacitors. Batteries and Supercaps, 0, , .	2.4	1