Vipin Kumar

List of Publications by Year
in descending order

68 papers	3,098 citations	172457 29 h-index	155660 55 g-index
70 all docs	70 docs citations	70 times ranked	4569 citing authors

#	Article	IF	Citations
1	Highly Transparent, Stretchable, and Selfâ€Healing Ionicâ€Skin Triboelectric Nanogenerators for Energy Harvesting and Touch Applications. Advanced Materials, 2017, 29, 1702181.	21.0	322
2	Enhanced Piezoelectric Energy Harvesting Performance of Flexible PVDF-TrFE Bilayer Films with Graphene Oxide. ACS Applied Materials & Interfaces, 2016, 8, 521-529.	8.0	284
3	Metal Organic Frameworkâ€Derived Metal Phosphates as Electrode Materials for Supercapacitors. Advanced Energy Materials, 2016, 6, 1501833.	19.5	212
4	Ultra-large optical modulation of electrochromic porous WO₃film and the local monitoring of redox activity. Chemical Science, 2016, 7, 1373-1382.	7.4	198
5	MOFs-derived copper sulfides embedded within porous carbon octahedra for electrochemical capacitor applications. Chemical Communications, 2015, 51, 3109-3112.	4.1	145
6	Carbon Coated Bimetallic Sulfide Hollow Nanocubes as Advanced Sodium Ion Battery Anode. Advanced Energy Materials, 2017, 7, 1700180.	19.5	130
7	Self-powered pressure sensor for ultra-wide range pressure detection. Nano Research, 2017, 10, 3557-3570.	10.4	117
8	Fast charging self-powered electric double layer capacitor. Journal of Power Sources, 2017, 342, 70-78.	7.8	98
9	An artificial metal-alloy interphase for high-rate and long-life sodiumâ€“sulfur batteries. Energy Storage Materials, 2020, 29, 1-8.	18.0	91
10	Formation of hexagonal-molybdenum trioxide (h-MoO₃) nanostructures and their pseudocapacitive behavior. Nanoscale, 2015, 7, 11777-11786.	5.6	85
11	Redox Active Polyaniline-h-MoO₃Hollow Nanorods for Improved Pseudocapacitive Performance. Journal of Physical Chemistry C, 2015, 119, 9041-9049.	3.1	74
12	Factors affecting direct lightning strike damage to fiber reinforced composites: A review. Composites Part B: Engineering, 2020, 183, 107688.	12.0	68
13	Interleaved MWCNT buckypaper between CFRP laminates to improve through-thickness electrical conductivity and reducing lightning strike damage. Composite Structures, 2019, 210, 581-589.	5.8	65
14	Highly conductive graphene oxide/polyaniline hybrid polymer nanocomposites with simultaneously improved mechanical properties. Composites Part A: Applied Science and Manufacturing, 2016, 82, 100-107.	7.6	63
15	Effect of through-thickness electrical conductivity of CFRPs on lightning strike damages. Composites Part A: Applied Science and Manufacturing, 2018, 114, 429-438.	7.6	60
16	Topotactic Phase Transformation of Hexagonal MoO₃ to Layered MoO₃-II and Its Two-Dimensional (2D) Nanosheets. Chemistry of Materials, 2014, 26, 5533-5539.	6.7	55
17	Mechanical and electrical properties of PANI-based conductive thermosetting composites. Journal of Reinforced Plastics and Composites, 2015, 34, 1298-1305.	3.1	54
18	Enhanced thermomechanical and electrical properties of multiwalled carbon nanotube paper reinforced epoxy laminar composites. Composites Part A: Applied Science and Manufacturing, 2018, 104, 129-138.	7.6	50

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19	A Biphasic Interphase Design Enabling High Performance in Room Temperature Sodium-Sulfur Batteries. Cell Reports Physical Science, 2020, 1, 100044.	5.6	47
20	Insights on the Fundamental Capacitive Behavior: A Case Study of MnO₂. Small, 2014, 10, 3568-3578.	10.0	45
21	Aniline Tetramerâ€Graphene Oxide Composites for High Performance Supercapacitors. Advanced Energy Materials, 2014, 4, 1400781.	19.5	44
22	Ti-Doped WO₃ synthesized by a facile wet bath method for improved electrochromism. Journal of Materials Chemistry C, 2017, 5, 9995-10000.	5.5	43
23	Polyaniline-based all-polymeric adhesive layer: An effective lightning strike protection technology for high residual mechanical strength of CFRPs. Composites Science and Technology, 2019, 172, 49-57.	7.8	42
24	Multi-responsive supercapacitors: Smart solution to store electrical energy. Materials Today Energy, 2017, 4, 41-57.	4.7	39
25	Improved environmental stability, electrical and EMI shielding properties of vaporâ€grown carbon fiberâ€filled polyanilineâ€based nanocomposite. Polymer Engineering and Science, 2019, 59, 956-963.	3.1	39
26	Synthesis and characterization of PANI-DBSA/DVB composite using roll-milled PANI-DBSA complex. Polymer, 2016, 86, 129-137.	3.8	38
27	Improved thermomechanical and electrical properties of reduced graphene oxide reinforced polyaniline â€“ dodecylbenzenesulfonic acid/divinylbenzene nanocomposites. Journal of Colloid and Interface Science, 2019, 533, 548-560.	9.4	36
28	Design of Mixedâ€Metal Silver Decamolybdate Nanostructures for High Specific Energies at High Power Density. Advanced Materials, 2016, 28, 6966-6975.	21.0	35
29	Synthesis of pyramidal and prismatic hexagonal MoO3 nanorods using thiourea. CrystEngComm, 2013, 15, 7663.	2.6	29
30	Irreversible tunability of through-thickness electrical conductivity of polyaniline-based CFRP by de-doping. Composites Science and Technology, 2017, 152, 20-26.	7.8	29
31	The effect of deposition time on the structural and optical properties of Î²-Ga2O3 nanowires grown using CVD technique. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	28
32	Design and construction of a threeâ€dimensional electrode with biomassâ€derived carbon current collector and waterâ€soluble binder for highâ€sulfurâ€loading lithiumâ€sulfur batteries. , 2020, 2, 635-645.		27
33	Processing and mechanical characterization of short carbon fiber-reinforced epoxy composites for material extrusion additive manufacturing. Composites Part B: Engineering, 2021, 223, 109122.	12.0	27
34	Investigation of Charge Transfer Kinetics at Carbon/Hydroquinone Interfaces for Redox-Active-Electrolyte Supercapacitors. ACS Applied Materials & Interfaces, 2017, 9, 33728-33734.	8.0	25
35	Design of MWCNT bucky paper reinforced PANIâ€“DBSAâ€“DVB composites with superior electrical and mechanical properties. Journal of Materials Chemistry C, 2018, 6, 12396-12406.	5.5	25
36	Recent advances in cathode engineering to enable reversible room-temperature aluminiumâ€“sulfur batteries. Nanoscale Advances, 2021, 3, 1569-1581.	4.6	25

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37	Unveiling the physiochemical aspects of the matrix in improving sulfur-loading for room-temperature sodiumâ€“sulfur batteries. Materials Advances, 2021, 2, 4165-4189.	5.4	22
38	Internal arcing and lightning strike damage in short carbon fiber reinforced thermoplastic composites. Composites Science and Technology, 2021, 201, 108525.	7.8	21
39	Challenges in regulating interfacialâ€chemistry of the sodiumâ€metal anode for roomâ€temperature <scp>sodiumâ€sulfur</scp> batteries. Energy Storage, 2022, 4, e264.	4.3	18
40	Reduced de-doping and enhanced electrical conductivity of polyaniline filled phenol-divinylbenzene composite for potential lightning strike protection application. Synthetic Metals, 2019, 249, 81-89.	3.9	17
41	Performance evaluation of Ag/SnO2 nanocomposite materials as coating material with high capability on antibacterial activity. Ain Shams Engineering Journal, 2020, 11, 767-776.	6.1	16
42	Study on effective thermal conductivity of zinc sulphide/poly(methyl methacrylate) nanocomposites. Applied Nanoscience (Switzerland), 2015, 5, 697-702.	3.1	15
43	Polymer Light-Emitting Electrochemical Cell Blends Based on Selection of Lithium Salts, LiX [X = Trifluoromethanesulfonate, Hexafluorophosphate, and Bis(trifluoromethylsulfonyl)imide] with Low Turn-On Voltage. Journal of Physical Chemistry C, 2016, 120, 11324-11330.	3.1	15
44	Strain sensing behavior of multifunctional polyaniline-based thermoset polymer under static loading conditions. Polymer Testing, 2019, 77, 105916.	4.8	15
45	Exploration of the Unique Structural Chemistry of Sulfur Cathode for Highâ€Energy Rechargeable Beyondâ€Li Batteries. Advanced Energy and Sustainability Research, 2022, 3, 2100157.	5.8	15
46	Frequency independent AC electrical conductivity and dielectric properties of polyaniline-based conductive thermosetting composite. Journal of Polymer Engineering, 2018, 38, 955-961.	1.4	14
47	Melt extruded versus extrusion compression molded glass-polypropylene long fiber thermoplastic composites. Composites Part A: Applied Science and Manufacturing, 2021, 144, 106349.	7.6	13
48	Scavenging phenomenon and improved electrical and mechanical properties of polyanilineâ€“divinylbenzene composite in presence of MWCNT. International Journal of Mechanics and Materials in Design, 2018, 14, 697-708.	3.0	12
49	Cationic scavenging by polyaniline: Boon or bane from synthesis point of view of its nanocomposites. Polymer, 2018, 149, 169-177.	3.8	12
50	Evaluating the Lightning Strike Damage Tolerance for CFRP Composite Laminates Containing Conductive Nanofillers. Applied Composite Materials, 2022, 29, 1537-1554.	2.5	12
51	High-performance molded composites using additively manufactured preforms with controlled fiber and pore morphology. Additive Manufacturing, 2021, 37, 101733.	3.0	11
52	Localized Charge Transfer in Two-Dimensional Molybdenum Trioxide. ACS Applied Materials & Interfaces, 2017, 9, 27045-27053.	8.0	10
53	Simulated lightning strike investigation of CFRP comprising a novel polyaniline/phenol based electrically conductive resin matrix. Composites Science and Technology, 2021, 214, 108971.	7.8	10
54	Structures and UV resistance of Ag/SnO2 nanocomposite materials synthesized by horizontal vapor phase growth for coating applications. Journal of Materials Research and Technology, 2020, 9, 4806-4816.	5.8	9

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55	MXene Reinforced Thermosetting Composite for Lightning Strike Protection of Carbon Fiber Reinforced Polymer. Advanced Materials Interfaces, 2021, 8, 2100803.	3.7	7
56	Large-scale additive manufacturing tooling for extrusion-compression molds. Additive Manufacturing Letters, 2021, 1, 100007.	2.1	7
57	Synthesis and characterization of PANI/Pâ€2M conductive composites: Thermal, rheological, mechanical, and electrical properties. Polymer Composites, 2019, 40, 4321-4328.	4.6	6
58	Tri-rutile layered niobium-molybdates for all solid-state symmetric supercapacitors. Journal of Materials Chemistry A, 2020, 8, 20141-20150.	10.3	6
59	Comparison of semi-doped PANI/DBSA complex achieved by thermal doping and roll-mill process: A new perspective for application. Polymer, 2020, 202, 122723.	3.8	6
60	Oxygenâ€ionsâ€Mediated Pseudocapacitive Charge Storage in Molybdenum Trioxide Nanobelts. ChemNanoMat, 2015, 1, 403-408.	2.8	4
61	Introducing a curable dopant with methacrylate functionality for polyaniline based composites. Polymer Testing, 2019, 73, 171-177.	4.8	4
62	Electrically conductive carbon fiber layers as lightning strike protection for non-conductive epoxy-based CFRP substrate. Journal of Composite Materials, 2020, 54, 4547-4555.	2.4	4
63	Thickness threshold study of polyaniline-based lightning strike protection coating for carbon/glass fiber reinforced polymer composites. Composite Structures, 2022, 280, 114954.	5.8	2
64	Volumetric nondestructive evaluation for damage in carbon fiber reinforced polymer panels subjected to artificial lightning strikes. , 2022, , .		1
65	Introduction to 3D Printing Technology for Biomedical Applications. Gels Horizons: From Science To Smart Materials, 2021, , 1-26.	0.3	0
66	Effectively Reduced Damages with Increased Through-thickness Electrical Conductivity of CFRPs Against Artificial Lighting Strike. , 0, , .		0
67	Lightning Strike Damage of CF/Epoxy Composite Laminates with Conductive Polymer Layers. Lecture Notes in Mechanical Engineering, 2020, , 1022-1030.	0.4	0
68	Anisotropic mechanical properties of polymer composites from a hybrid additive manufacturing-compression molding process using x-ray computer tomography. , 2022, , .		0