## Nikhil A Koratkar

List of Publications by Year in descending order

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6471 8755 25,452 169 75 citations h-index papers

g-index 174 174 174 30706 docs citations times ranked citing authors all docs

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| #  | Article  | IF           | CITATIONS |
|----|--|--------------|-----------|
| 1  | Enhanced Mechanical Properties of Nanocomposites at Low Graphene Content. ACS Nano, 2009, 3, 3884-3890.  | 14.6         | 2,381     |
| 2  | Wetting transparency of graphene. Nature Materials, 2012, 11, 217-222.   | <b>27.</b> 5 | 971       |
| 3  | Miniaturized gas ionization sensors using carbon nanotubes. Nature, 2003, 424, 171-174.  | 27.8         | 929       |
| 4  | Fracture and Fatigue in Graphene Nanocomposites. Small, 2010, 6, 179-183.  | 10.0         | 781       |
| 5  | Multifunctional and Waterâ€Resistant MXeneâ€Decorated Polyester Textiles with Outstanding Electromagnetic Interference Shielding and Joule Heating Performances. Advanced Functional Materials, 2019, 29, 1806819. | 14.9         | 584       |
| 6  | Toughening in Graphene Ceramic Composites. ACS Nano, 2011, 5, 3182-3190.   | 14.6         | 568       |
| 7  | Effect of defects on the intrinsic strength and stiffness of graphene. Nature Communications, 2014, 5, 3186.   | 12.8         | 560       |
| 8  | A graphene foam electrode with high sulfur loading for flexible and high energy Li-S batteries. Nano Energy, 2015, 11, 356-365.  | 16.0         | 526       |
| 9  | Graphene-Based Chemical Sensors. Journal of Physical Chemistry Letters, 2012, 3, 1746-1753.  | 4.6          | 516       |
| 10 | Graphene–aluminum nanocomposites. Materials Science & Description A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7933-7937.  | 5.6          | 514       |
| 11 | High Sensitivity Gas Detection Using a Macroscopic Three-Dimensional Graphene Foam Network.<br>Scientific Reports, 2011, 1, 166.   | 3.3          | 503       |
| 12 | Nanograssed Micropyramidal Architectures for Continuous Dropwise Condensation. Advanced Functional Materials, 2011, 21, 4617-4623.   | 14.9         | 500       |
| 13 | Viscoelasticity in carbon nanotube composites. Nature Materials, 2005, 4, 134-137.   | 27.5         | 443       |
| 14 | Nanostructured Copper Interfaces for Enhanced Boiling. Small, 2008, 4, 1084-1088.  | 10.0         | 404       |
| 15 | Largeâ€Area Freestanding Graphene Paper for Superior Thermal Management. Advanced Materials, 2014, 26, 4521-4526.  | 21.0         | 386       |
| 16 | Defect-induced plating of lithium metal within porous graphene networks. Nature Communications, 2014, 5, 3710.   | 12.8         | 381       |
| 17 | Self-heating–induced healing of lithium dendrites. Science, 2018, 359, 1513-1516.  | 12.6         | 378       |
| 18 | Nanostructured Silicon Anodes for Lithium Ion Rechargeable Batteries. Small, 2009, 5, 2236-2242.   | 10.0         | 377       |

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|----|--|------|-----------|
| 19 | Enhanced Thermal Conductivity in a Nanostructured Phase Change Composite due to Low Concentration Graphene Additives. Journal of Physical Chemistry C, 2011, 115, 8753-8758.                                     | 3.1  | 377       |
| 20 | Defect-Induced Photoluminescence in Monolayer Semiconducting Transition Metal Dichalcogenides. ACS Nano, 2015, 9, 1520-1527.   | 14.6 | 376       |
| 21 | Aging of Transition Metal Dichalcogenide Monolayers. ACS Nano, 2016, 10, 2628-2635.  | 14.6 | 359       |
| 22 | Superhydrophobic to Superhydrophilic Wetting Control in Graphene Films. Advanced Materials, 2010, 22, 2151-2154.   | 21.0 | 352       |
| 23 | Photothermally Reduced Graphene as High-Power Anodes for Lithium-lon Batteries. ACS Nano, 2012, 6, 7867-7878.  | 14.6 | 320       |
| 24 | Nanostructured electrodes for high-power lithium ion batteries. Nano Energy, 2012, 1, 518-533.   | 16.0 | 306       |
| 25 | Phosphorene as a Polysulfide Immobilizer and Catalyst in Highâ€Performance Lithium–Sulfur Batteries.<br>Advanced Materials, 2017, 29, 1602734.   | 21.0 | 289       |
| 26 | Tunable Bandgap in Graphene by the Controlled Adsorption of Water Molecules. Small, 2010, 6, 2535-2538.  | 10.0 | 279       |
| 27 | Graphene Nanoribbon Composites. ACS Nano, 2010, 4, 7415-7420.  | 14.6 | 264       |
| 28 | Carbon science in 2016: Status, challenges and perspectives. Carbon, 2016, 98, 708-732.  | 10.3 | 261       |
| 29 | Thermally Conductive Phase Change Composites Featuring Anisotropic Graphene Aerogels for<br>Realâ€Time and Fastâ€Charging Solarâ€Thermal Energy Conversion. Advanced Functional Materials, 2018, 28,<br>1805365. | 14.9 | 260       |
| 30 | Highly sensitive, reliable and flexible piezoresistive pressure sensors featuring polyurethane sponge coated with MXene sheets. Journal of Colloid and Interface Science, 2019, 542, 54-62.                      | 9.4  | 248       |
| 31 | Vertically Oriented Arrays of ReS <sub>2</sub> Nanosheets for Electrochemical Energy Storage and Electrocatalysis. Nano Letters, 2016, 16, 3780-3787.  | 9.1  | 241       |
| 32 | Enhanced Electrical Conductivity in Polystyrene Nanocomposites at Ultra-Low Graphene Content. ACS Applied Materials & Diterfaces, 2011, 3, 3130-3133.  | 8.0  | 234       |
| 33 | High sensitivity detection of NO2 and NH3 in air using chemical vapor deposition grown graphene. Applied Physics Letters, 2012, 100, .   | 3.3  | 216       |
| 34 | Suppression of wear in graphene polymer composites. Carbon, 2012, 50, 3178-3183.   | 10.3 | 213       |
| 35 | Transitionâ€Metal Substitution Doping in Synthetic Atomically Thin Semiconductors. Advanced Materials, 2016, 28, 9735-9743.  | 21.0 | 208       |
| 36 | Harvesting Energy from Water Flow over Graphene. Nano Letters, 2011, 11, 3123-3127.  | 9.1  | 206       |

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|----|--|------|-----------|
| 37 | Enhanced thermal stability in graphene oxide covalently functionalized with 2-amino-4,6-didodecylamino-1,3,5-triazine. Carbon, 2011, 49, 1258-1265.  | 10.3 | 206       |
| 38 | Graphene–Nanotube–Iron Hierarchical Nanostructure as Lithium Ion Battery Anode. ACS Nano, 2013, 7, 4242-4251.  | 14.6 | 192       |
| 39 | Enhanced lithiation in defective graphene. Carbon, 2014, 80, 305-310.  | 10.3 | 186       |
| 40 | Wetting of Mono and Few-Layered WS <sub>2</sub> and MoS <sub>2</sub> Films Supported on Si/SiO <sub>2</sub> Substrates. ACS Nano, 2015, 9, 3023-3031.  | 14.6 | 186       |
| 41 | Superhydrophobic Graphene Foams. Small, 2013, 9, 75-80.  | 10.0 | 183       |
| 42 | Polarity-Dependent Electrochemically Controlled Transport of Water through Carbon Nanotube Membranes. Nano Letters, 2007, 7, 697-702.  | 9.1  | 176       |
| 43 | Alignment and dispersion of functionalized carbon nanotubes in polymer composites induced by an electric field. Carbon, 2008, 46, 706-710.   | 10.3 | 170       |
| 44 | Air-dried, high-density graphene hybrid aerogels for phase change composites with exceptional thermal conductivity and shape stability. Journal of Materials Chemistry A, 2016, 4, 18067-18074.  | 10.3 | 167       |
| 45 | Graphene Supported Platinum Nanoparticle Counter-Electrode for Enhanced Performance of Dye-Sensitized Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cells. Solar Cells. ACS Applied Materials & Solar Cells. Solar Cel | 8.0  | 153       |
| 46 | Epoxy Nanocomposites with Two-Dimensional Transition Metal Dichalcogenide Additives. ACS Nano, 2014, 8, 5282-5289.   | 14.6 | 152       |
| 47 | Alignment of multiwalled carbon nanotubes in bulk epoxy composites via electric field. Journal of Applied Physics, 2009, 105, .  | 2.5  | 147       |
| 48 | Stabilizing sulfur cathodes using nitrogen-doped graphene as a chemical immobilizer for Li S batteries. Carbon, 2016, 108, 120-126.  | 10.3 | 134       |
| 49 | Recent advances in phosphorene as a sensing material. Nano Today, 2018, 20, 13-32.   | 11.9 | 134       |
| 50 | In situ thermal reduction of graphene oxide for high electrical conductivity and low percolation threshold in polyamide 6 nanocomposites. Composites Science and Technology, 2012, 72, 284-289.  | 7.8  | 130       |
| 51 | Energy dissipation in carbon nanotube composites: a review. Journal of Materials Science, 2008, 43, 4370-4382.   | 3.7  | 129       |
| 52 | Controlled Crumpling of Graphene Oxide Films for Tunable Optical Transmittance. Advanced Materials, 2015, 27, 3256-3265.   | 21.0 | 129       |
| 53 | A novel approach to enhance the thermal conductivity of epoxy nanocomposites using graphene core–shell additives. Carbon, 2016, 101, 239-244.  | 10.3 | 128       |
| 54 | A Foldable Lithium–Sulfur Battery. ACS Nano, 2015, 9, 11342-11350.   | 14.6 | 125       |

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|----|--|------|-----------|
| 55 | Passivation of microbial corrosion using a graphene coating. Carbon, 2013, 56, 45-49.  | 10.3 | 121       |
| 56 | Characterizing energy dissipation in single-walled carbon nanotube polycarbonate composites. Applied Physics Letters, 2005, 87, 063102.  | 3.3  | 119       |
| 57 | Organic–Inorganic Heterointerfaces for Ultrasensitive Detection of Ultraviolet Light. Nano Letters, 2015, 15, 3787-3792.   | 9.1  | 117       |
| 58 | Graphene supported nickel nanoparticle as a viable replacement for platinum in dye sensitized solar cells. Nanoscale, 2012, 4, 926-930.  | 5.6  | 116       |
| 59 | Protecting Silicon Film Anodes in Lithium-Ion Batteries Using an Atomically Thin Graphene Drape. ACS Nano, 2017, 11, 5051-5061.  | 14.6 | 113       |
| 60 | Multifunctional structural reinforcement featuring carbon nanotube films. Composites Science and Technology, 2003, 63, 1525-1531.  | 7.8  | 109       |
| 61 | Temperature-Activated Interfacial Friction Damping in Carbon Nanotube Polymer Composites. Nano<br>Letters, 2006, 6, 219-223.   | 9.1  | 104       |
| 62 | Porous Graphene Films with Unprecedented Elastomeric Scaffold‣ike Folding Behavior for Foldable Energy Storage Devices. Advanced Materials, 2018, 30, e1707025.  | 21.0 | 102       |
| 63 | Functionally Strain-Graded Nanoscoops for High Power Li-lon Battery Anodes. Nano Letters, 2011, 11, 377-384.   | 9.1  | 101       |
| 64 | Heterogeneity in Epoxy Nanocomposites Initiates Crazing: Significant Improvements in Fatigue Resistance and Toughening. Small, 2009, 5, 1403-1407.   | 10.0 | 100       |
| 65 | Wettingâ€Transparent Graphene Films for Hydrophobic Waterâ€Harvesting Surfaces. Advanced Materials, 2014, 26, 5166-5172.   | 21.0 | 97        |
| 66 | Multifunctional Bioâ€Nanocomposite Coatings for Perishable Fruits. Advanced Materials, 2020, 32, e1908291.   | 21.0 | 97        |
| 67 | Tellurene based chemical sensor. Journal of Materials Chemistry A, 2019, 7, 26326-26333.   | 10.3 | 95        |
| 68 | Adsorption and Diffusion of Lithium and Sodium on Defective Rhenium Disulfide: A First Principles Study. ACS Applied Materials & Study.  | 8.0  | 92        |
| 69 | Flame Synthesis of Superhydrophilic Carbon Nanotubes/Ni Foam Decorated with Fe <sub>2</sub> O <sub>3</sub> Nanoparticles for Water Purification via Solar Steam Generation. ACS Applied Materials & Decorated Applied Materials & Decorate Applied Materials & Decorated Applied & Decorated Applied & Decorated Applied & Decorated Applied & Decorated | 8.0  | 92        |
| 70 | Nanostructuring versus microstructuring in battery electrodes. Nature Reviews Materials, 2022, 7, 736-746.   | 48.7 | 92        |
| 71 | Utilizing interfaces in carbon nanotube reinforced polymer composites for structural damping.<br>Journal of Materials Science, 2006, 41, 7824-7829.  | 3.7  | 88        |
| 72 | Effects of adatom and gas molecule adsorption on the physical properties of tellurene: a first principles investigation. Physical Chemistry Chemical Physics, 2018, 20, 4058-4066.   | 2.8  | 87        |

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|----|---|------|-----------|
| 73 | Wind tunnel testing of a Mach-scaled rotor model with trailing-edge flaps. Smart Materials and Structures, 2001, 10, 1-14.  | 3.5  | 83        |
| 74 | A carbon science perspective in 2018: Current achievements and future challenges. Carbon, 2018, 132, 785-801.   | 10.3 | 80        |
| 75 | In situ healing of dendrites in a potassium metal battery. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5588-5594.   | 7.1  | 79        |
| 76 | Directed rebounding of droplets by microscale surface roughness gradients. Applied Physics Letters, 2010, 96, .   | 3.3  | 78        |
| 77 | Highly sulfiphilic Ni-Fe bimetallic oxide nanoparticles anchored on carbon nanotubes enable effective immobilization and conversion of polysulfides for stable lithium-sulfur batteries. Carbon, 2019, 142, 32-39.          | 10.3 | 78        |
| 78 | Carbon science perspective in 2020: Current research and future challenges. Carbon, 2020, 161, 373-391.   | 10.3 | 77        |
| 79 | Fullerene–epoxy nanocomposites-enhanced mechanical properties at low nanofiller loading. Journal of Nanoparticle Research, 2011, 13, 733-737.   | 1.9  | 76        |
| 80 | Synthesis and electrochemical performance characterization of Ce-doped Li $3V2$ (PO $4)3/C$ as cathode materials for lithium-ion batteries. Journal of Power Sources, 2013, 243, 33-39.                                     | 7.8  | 74        |
| 81 | Control of Epoxy Creep Using Graphene. Small, 2012, 8, 1676-1682.   | 10.0 | 73        |
| 82 | Vanadium disulfide flakes with nanolayered titanium disulfide coating as cathode materials in lithium-ion batteries. Nature Communications, 2019, 10, 1764.   | 12.8 | 73        |
| 83 | Efficient Polysulfide Redox Enabled by Lattice-Distorted Ni <sub>3</sub> Fe Intermetallic<br>Electrocatalyst-Modified Separator for Lithium–Sulfur Batteries. ACS Applied Materials &<br>Interfaces, 2020, 12, 19572-19580. | 8.0  | 72        |
| 84 | Raman study of interfacial load transfer in graphene nanocomposites. Applied Physics Letters, 2011, 98, .   | 3.3  | 71        |
| 85 | Cl-Doped ZnO Nanowire Arrays on 3D Graphene Foam with Highly Efficient Field Emission and Photocatalytic Properties. Small, 2015, 11, 4785-4792.  | 10.0 | 71        |
| 86 | Hexagonal Boron Nitride: The Thinnest Insulating Barrier to Microbial Corrosion. ACS Nano, 2018, 12, 2242-2252.   | 14.6 | 71        |
| 87 | Folding insensitive, high energy density lithium-ion battery featuring carbon nanotube current collectors. Carbon, 2015, 87, 292-298.   | 10.3 | 70        |
| 88 | Self-assembly and morphological control of three-dimensional macroporous architectures built of two-dimensional materials. Nano Today, 2017, 14, 100-123.   | 11.9 | 69        |
| 89 | Shape memory fiber supercapacitors. Nano Energy, 2015, 17, 330-338.   | 16.0 | 67        |
| 90 | Carbon nanotube sponges as conductive networks for supercapacitor devices. Nano Energy, 2013, 2, 1025-1030.   | 16.0 | 61        |

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|-----|--|------|-----------|
| 91  | NiO nanoparticles deposited on graphene platelets as a cost-effective counter electrode in a dye sensitized solar cell. Carbon, 2013, 56, 56-63.   | 10.3 | 56        |
| 92  | An Environmentally Stable and Leadâ€Free Chalcogenide Perovskite. Advanced Functional Materials, 2020, 30, 2001387.  | 14.9 | 52        |
| 93  | Raman spectroscopic imaging of graphene dispersion in polymer composites. Carbon, 2013, 62, 510-513.   | 10.3 | 51        |
| 94  | Highly Bendable Ionic Soft Actuator Based on Nitrogenâ€Enriched 3D Heteroâ€Nanostructure Electrode.<br>Advanced Functional Materials, 2018, 28, 1802464.   | 14.9 | 51        |
| 95  | Superiority of Graphene over Polymer Coatings for Prevention of Microbially Induced Corrosion. Scientific Reports, 2015, 5, 13858.   | 3.3  | 50        |
| 96  | Utilizing a graphene matrix to overcome the intrinsic limitations of red phosphorus as an anode material in lithium-ion batteries. Carbon, 2018, 127, 588-595.   | 10.3 | 50        |
| 97  | Exploiting self-heat in a lithium metal battery for dendrite healing. Energy Storage Materials, 2019, 20, 291-298.   | 18.0 | 50        |
| 98  | Utilizing van der Waals Slippery Interfaces to Enhance the Electrochemical Stability of Silicon Film Anodes in Lithium-lon Batteries. ACS Applied Materials & Electrochemical Stability of Silicon Film Anodes in Lithium-lon Batteries. | 8.0  | 48        |
| 99  | Wind Tunnel Testing of a Smart Rotor Model with Trailing-Edge Flaps. Journal of the American Helicopter Society, 2002, 47, 263.  | 0.8  | 47        |
| 100 | Graphene Drape Minimizes the Pinning and Hysteresis of Water Drops on Nanotextured Rough Surfaces. ACS Nano, 2013, 7, 3512-3521.   | 14.6 | 46        |
| 101 | Facet-insensitive graphene growth on copper. Physical Review B, 2012, 85, .  | 3.2  | 45        |
| 102 | Effect of Platelet Thickness on Wear of Graphene–Polytetrafluoroethylene (PTFE) Composites. Tribology Letters, 2015, 59, 1.  | 2.6  | 45        |
| 103 | Sculpting Artificial Edges in Monolayer MoS <sub>2</sub> for Controlled Formation of Surface-Enhanced Raman Hotspots. ACS Nano, 2020, 14, 6258-6268.   | 14.6 | 45        |
| 104 | Effects of Defects on the Temperatureâ€Dependent Thermal Conductivity of Suspended Monolayer Molybdenum Disulfide Grown by Chemical Vapor Deposition. Advanced Functional Materials, 2017, 27, 1704357.                                  | 14.9 | 44        |
| 105 | Maleic anhydride-functionalized graphene nanofillers render epoxy coatings highly resistant to corrosion and microbial attack. Carbon, 2020, 159, 586-597.   | 10.3 | 44        |
| 106 | Water electrolysis activated by Ru nanorod array electrodes. Applied Physics Letters, 2006, 88, 263106.  | 3.3  | 42        |
| 107 | Aqueous lithium-ion batteries with niobium tungsten oxide anodes for superior volumetric and rate capability. Energy Storage Materials, 2020, 27, 506-513.   | 18.0 | 40        |
| 108 | Temperature Effects on Resistance of Aligned Multiwalled Carbon Nanotube Films. Journal of Nanoscience and Nanotechnology, 2004, 4, 744-748.   | 0.9  | 39        |

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|-----|---|------|-----------|
| 109 | A flexible carbon/sulfur-cellulose core-shell structure for advanced lithium–sulfur batteries. Energy Storage Materials, 2018, 15, 388-395.   | 18.0 | 38        |
| 110 | Wetting and Electrowetting Properties of Carbon Nanotube Templated Parylene Films. Journal of Physical Chemistry B, 2007, 111, 4296-4299.   | 2.6  | 36        |
| 111 | First-principles study of interaction of molecular hydrogen with Li-doped carbon nanotube peapod structures. Physical Review B, 2008, 77, .   | 3.2  | 36        |
| 112 | Graphene-coated meshes for electroactive flow control devices utilizing two antagonistic functions of repellency and permeability. Nature Communications, 2016, 7, 13345.                                 | 12.8 | 36        |
| 113 | Reversible Alloying of Phosphorene with Potassium and Its Stabilization Using Reduced Graphene Oxide Buffer Layers. ACS Nano, 2019, 13, 14094-14106.  | 14.6 | 36        |
| 114 | Theoretical and Experimental Insight into the Mechanism for Spontaneous Vertical Growth of ReS 2 Nanosheets. Advanced Functional Materials, 2018, 28, 1801286.  | 14.9 | 35        |
| 115 | Catalystâ€Free and Morphologyâ€Controlled Growth of 2D Perovskite Nanowires for Polarized Light Detection. Advanced Optical Materials, 2019, 7, 1900039.  | 7.3  | 35        |
| 116 | Nano-engineered biocatalyst-electrode structures for next generation microbial fuel cells. Nano Energy, 2012, 1, 3-5.   | 16.0 | 34        |
| 117 | Analysis and Testing of Mach-Scaled Rotor with Trailing-Edge Flaps. AIAA Journal, 2000, 38, 1113-1124.  | 2.6  | 33        |
| 118 | Scalable and rapid Far Infrared reduction of graphene oxide for high performance lithium ion batteries. Energy Storage Materials, 2015, 1, 9-16.  | 18.0 | 33        |
| 119 | Improvement in fatigue life of carbon fibre reinforced polymer composites via a Nano-Silica Modified<br>Matrix. Carbon, 2020, 170, 220-224.   | 10.3 | 33        |
| 120 | Far-infrared reduced graphene oxide as high performance electrodes for supercapacitors. Carbon, 2014, 75, 201-208.  | 10.3 | 32        |
| 121 | Screening-Level Life Cycle Assessment of Graphene-Poly(ether imide) Coatings Protecting Unalloyed Steel from Severe Atmospheric Corrosion. ACS Sustainable Chemistry and Engineering, 2017, 5, 2656-2667. | 6.7  | 32        |
| 122 | Ultrathin and Strong Electrospun Porous Fiber Separator. ACS Applied Energy Materials, 2018, 1, 4794-4803.  | 5.1  | 32        |
| 123 | Nanocomposites of a Cashew Nut Shell Derived Epoxy Resin and Graphene Platelets: From Flexible to Tough. ACS Sustainable Chemistry and Engineering, 2016, 4, 1715-1721.                                   | 6.7  | 31        |
| 124 | Solidâ€State Hybrid Fibrous Supercapacitors Produced by Deadâ€End Tube Membrane Ultrafiltration. Advanced Functional Materials, 2017, 27, 1606461.  | 14.9 | 31        |
| 125 | Influence of releasing graphene oxide into a clayey sand: physical and mechanical properties. RSC Advances, 2017, 7, 18060-18067.   | 3.6  | 31        |
| 126 | Bandgap Tuning in BaZrS <sub>3</sub> Perovskite Thin Films. ACS Applied Electronic Materials, 2021, 3, 3306-3312.   | 4.3  | 31        |

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|-----|---|------|-----------|
| 127 | Short period sinusoidal thermal modulation for quantitative identification of gas species. Nanoscale, 2020, 12, 220-229.  | 5.6  | 30        |
| 128 | Experimental Investigation of the Machinability of Epoxy Reinforced With Graphene Platelets. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2013, 135, .             | 2.2  | 28        |
| 129 | Fast Triggering of Shape Memory Polymers using an Embedded Carbon Nanotube Sponge Network.<br>Scientific Reports, 2016, 6, 24148.   | 3.3  | 28        |
| 130 | Repurposing paper by-product lignosulfonate as a sulfur donor/acceptor for high performance lithium–sulfur batteries. Sustainable Energy and Fuels, 2018, 2, 422-429.                             | 4.9  | 26        |
| 131 | Examining the electron transport in chalcogenide perovskite BaZrS <sub>3</sub> . Journal of Materials Chemistry C, 2021, 9, 3892-3900.  | 5.5  | 24        |
| 132 | Structural transformation and embrittlement during lithiation and delithiation cycles in an amorphous silicon electrode. Acta Materialia, 2019, 175, 11-20.                                       | 7.9  | 22        |
| 133 | Nanocarbon aerogel complexes inspired by the leaf structure. Carbon, 2014, 77, 637-644.   | 10.3 | 21        |
| 134 | Corrosion Resistance of Sulfur–Selenium Alloy Coatings. Advanced Materials, 2021, 33, e2104467.   | 21.0 | 21        |
| 135 | Substitutional transition metal doping in MoS <sub>2</sub> : a first-principles study. Nano Express, 2020, 1, 010008.   | 2.4  | 20        |
| 136 | Reversing fatigue in carbon-fiber reinforced vitrimer composites. Carbon, 2022, 187, 108-114.   | 10.3 | 20        |
| 137 | High-strain rate compressive behavior of multi-walled carbon nanotube dispersed thermoset epoxy resin. Journal of Composite Materials, 2015, 49, 903-910.   | 2.4  | 18        |
| 138 | Graphene oxide colloidal suspensions mitigate carbon diffusion during diamond turning of steel. Journal of Manufacturing Processes, 2015, 17, 41-47.  | 5.9  | 16        |
| 139 | Recent advances in the mitigation of dendrites in lithium-metal batteries. Journal of Applied Physics, 2020, 128, .   | 2.5  | 14        |
| 140 | ESSENCE – A rapid, shear-enhanced, flow-through, capacitive electrochemical platform for rapid detection of biomolecules. Biosensors and Bioelectronics, 2021, 182, 113163.                       | 10.1 | 14        |
| 141 | Graphene's Partial Transparency to van der Waals and Electrostatic Interactions. Langmuir, 2019, 35, 12306-12316.   | 3.5  | 13        |
| 142 | Local ferroelectric polarization in antiferroelectric chalcogenide perovskite BaZrS3 thin films. Physical Review B, 2020, 102, .  | 3.2  | 13        |
| 143 | Alloying of Alkali Metals with Tellurene. Advanced Energy Materials, 2021, 11, 2003248.   | 19.5 | 11        |
| 144 | Mechanical Property Enhancement of Layered Reduced Graphene Oxide Papers by Nonâ€Covalent Modification with Terephthalic Acid. Particle and Particle Systems Characterization, 2014, 31, 337-341. | 2.3  | 10        |

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|-----|--|--------------------|---------------|
| 145 | A dual-ion accepting vanadium carbide nanowire cathode integrated with carbon cloths for high cycling stability. Nanoscale, 2020, 12, 20868-20874.   | 5.6                | 10            |
| 146 | Virtual Alternating Current Measurements Advance Semiconductor Gas Sensors' Performance in the Internet of Things. IEEE Internet of Things Journal, 2022, 9, 5502-5510.  | 8.7                | 10            |
| 147 | Enhanced photoemission from nanostructured surface topologies. Applied Physics Letters, 2006, 89, 193116.  | 3.3                | 9             |
| 148 | Sustainability of renewable fuel infrastructure: a screening LCA case study of anticorrosive graphene oxide epoxy liners in steel tanks for the storage of biodiesel and its blends. Environmental Sciences: Processes and Impacts, 2017, 19, 141-153. | 3.5                | 9             |
| 149 | Localized transformation of few-layered graphene producing graphitic shells with nanoparticle cores for catalytic applications. Carbon, 2015, 85, 406-413.   | 10.3               | 8             |
| 150 | Micromilling Responses of Hierarchical Graphene Composites. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .   | 2.2                | 8             |
| 151 | Nanocomposite Creep: Control of Epoxy Creep Using Graphene (Small 11/2012). Small, 2012, 8, 1675-1675.   | 10.0               | 7             |
| 152 | Graphene Foams: Superhydrophobic Graphene Foams (Small 1/2013). Small, 2013, 9, 2-2.   | 10.0               | 7             |
| 153 | Sensible graphene oxide differentiates macrophages and <i>Leishmania</i> : a bio-nano interplay in attenuating intracellular parasite. RSC Advances, 2020, 10, 27502-27511.  | 3.6                | 7             |
| 154 | Oxygen Reduction Reaction with Manganese Oxide Nanospheres in Microbial Fuel Cells. ACS Omega, 2022, 7, 11777-11787.   | 3.5                | 7             |
| 155 | Electrical Transport and Breakdown in Graphene Multilayers Loaded with Electron Beam Induced Deposited Platinum. ACS Applied Materials & Emp; Interfaces, 2013, 5, 3424-3430.  | 8.0                | 6             |
| 156 | Heterogeneity-induced mesoscale toughening in polymer nanocomposites. Materialia, 2020, 11, 100673.  | 2.7                | 6             |
| 157 | Controlled Re doping in MoS2 by chemical vapor deposition. Inorganic Chemistry Communication, 2021, 123, 108329.   | 3.9                | 6             |
| 158 | Orientation-Controlled Large-Area Epitaxial Pbl2 Thin Films with Tunable Optical Properties. ACS Applied Materials & Description (2011), 13, 32450-32460.  | 8.0                | 6             |
| 159 | Phase transformation and enhanced blue photoluminescence of zirconium oxide poly-crystalline thin film induced by Ni ion beam irradiation. Scientific Reports, 2021, 11, 17672.  | 3.3                | 6             |
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