# Jonathan N Coleman

## List of Publications by Citations



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|---|---|---|---|
| 357 papers | 73,026 citations | 105 h-index | 269 g-index |
| 383 ext. papers | 80,297 ext. citations | 9.7 avg, IF | 8.02 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 357 | Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. *Nature Nanotechnology*, **2012**, 7, 699-712 | 28.7 | 10871 |
| 356 | Two-dimensional nanosheets produced by liquid exfoliation of layered materials. *Science*, **2011**, 331, 568-71 | 33.3 | 5221 |
| 355 | High-yield production of graphene by liquid-phase exfoliation of graphite. *Nature Nanotechnology*, **2008**, 3, 563-8 | 28.7 | 4715 |
| 354 | Small but strong: A review of the mechanical properties of carbon nanotube–polymer composites. *Carbon*, **2006**, 44, 1624-1652 | 10.4 | 3269 |
| 353 | Liquid Exfoliation of Layered Materials. *Science*, **2013**, 340, 1226419-1226419 | 33.3 | 2604 |
| 352 | Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. *Nanoscale*, **2015**, 7, 4598-810 | 7.7 | 2015 |
| 351 | Liquid phase production of graphene by exfoliation of graphite in surfactant/water solutions. *Journal of the American Chemical Society*, **2009**, 131, 3611-20 | 16.4 | 1821 |
| 350 | Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids. *Nature Materials*, **2014**, 13, 624-30 | 27 | 1627 |
| 349 | Mechanical Reinforcement of Polymers Using Carbon Nanotubes. *Advanced Materials*, **2006**, 18, 689-706 | 24 | 1399 |
| 348 | Silver Nanowire Networks as Flexible, Transparent, Conducting Films: Extremely High DC to Optical Conductivity Ratios. *ACS Nano*, **2009**, 3, 1767-74 | 16.7 | 1343 |
| 347 | Super-tough carbon-nanotube fibres. *Nature*, **2003**, 423, 703 | 50.4 | 1256 |
| 346 | Large-scale exfoliation of inorganic layered compounds in aqueous surfactant solutions. *Advanced Materials*, **2011**, 23, 3944-8 | 24 | 888 |
| 345 | High-concentration, surfactant-stabilized graphene dispersions. *ACS Nano*, **2010**, 4, 3155-62 | 16.7 | 826 |
| 344 | High-concentration solvent exfoliation of graphene. *Small*, **2010**, 6, 864-71 | 11 | 810 |
| 343 | Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. *Nature Communications*, **2015**, 6, 8563 | 17.4 | 764 |
| 342 | Ultrafast saturable absorption of two-dimensional MoS2 nanosheets. *ACS Nano*, **2013**, 7, 9260-7 | 16.7 | 754 |
| 341 | Liquid exfoliation of defect-free graphene. *Accounts of Chemical Research*, **2013**, 46, 14-22 | 24.3 | 720 |

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| 340 | Experimental observation of scaling laws for alternating current and direct current conductivity in polymer-carbon nanotube composite thin films. *Journal of Applied Physics*, **2002**, 92, 4024-4030 | 2.5 | 652 |
| 339 | Sensitive, high-strain, high-rate bodily motion sensors based on graphene-rubber composites. *ACS Nano*, **2014**, 8, 8819-30 | 16.7 | 588 |
| 338 | Morphological and mechanical properties of carbon-nanotube-reinforced semicrystalline and amorphous polymer composites. *Applied Physics Letters*, **2002**, 81, 5123-5125 | 3.4 | 550 |
| 337 | A Composite from Poly(m-phenylenevinylene-co-2,5-dioctoxy-p-phenylenevinylene) and Carbon Nanotubes: A Novel Material for Molecular Optoelectronics. *Advanced Materials*, **1998**, 10, 1091-1093 | 24 | 539 |
| 336 | Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. *Advanced Materials*, **2017**, 29, 1702678 | 24 | 538 |
| 335 | High Performance Nanotube-Reinforced Plastics: Understanding the Mechanism of Strength Increase. *Advanced Functional Materials*, **2004**, 14, 791-798 | 15.6 | 538 |
| 334 | Solvent exfoliation of transition metal dichalcogenides: dispersibility of exfoliated nanosheets varies only weakly between compounds. *ACS Nano*, **2012**, 6, 3468-80 | 16.7 | 535 |
| 333 | Liquid-Phase Exfoliation of Nanotubes and Graphene. *Advanced Functional Materials*, **2009**, 19, 3680-3695 | 15.6 | 518 |
| 332 | Sensitive electromechanical sensors using viscoelastic graphene-polymer nanocomposites. *Science*, **2016**, 354, 1257-1260 | 33.3 | 517 |
| 331 | Measurement of multicomponent solubility parameters for graphene facilitates solvent discovery. *Langmuir*, **2010**, 26, 3208-13 | 4 | 481 |
| 330 | Are there fundamental limitations on the sheet resistance and transmittance of thin graphene films?. *ACS Nano*, **2010**, 4, 2713-20 | 16.7 | 462 |
| 329 | Preparation of High Concentration Dispersions of Exfoliated MoS2 with Increased Flake Size. *Chemistry of Materials*, **2012**, 24, 2414-2421 | 9.6 | 437 |
| 328 | Broadband Nonlinear Optical Response of Graphene Dispersions. *Advanced Materials*, **2009**, 21, 2430-2435 | 24 | 428 |
| 327 | Reinforcement of Polymers with Carbon Nanotubes:The Role of Nanotube Surface Area. *Nano Letters*, **2004**, 4, 353-356 | 11.5 | 414 |
| 326 | Additive-free MXene inks and direct printing of micro-supercapacitors. *Nature Communications*, **2019**, 10, 1795 | 17.4 | 407 |
| 325 | Graphene Dispersion and Exfoliation in Low Boiling Point Solvents. *Journal of Physical Chemistry C*, **2011**, 115, 5422-5428 | 3.8 | 390 |
| 324 | Electrical connectivity in single-walled carbon nanotube networks. *Nano Letters*, **2009**, 9, 3890-5 | 11.5 | 377 |
| 323 | Oxygen radical functionalization of boron nitride nanosheets. *Journal of the American Chemical Society*, **2012**, 134, 18758-71 | 16.4 | 362 |

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| 322 | Percolation-dominated conductivity in a conjugated-polymer-carbon-nanotube composite. *Physical Review B*, **1998**, 58, R7492-R7495 | 3.3 | 362 |
| 321 | Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. *Nature Communications*, **2014**, 5, 4576 | 17.4 | 350 |
| 320 | Flexible, transparent, conducting films of randomly stacked graphene from surfactant-stabilized, oxide-free graphene dispersions. *Small*, **2010**, 6, 458-64 | 11 | 342 |
| 319 | Production of Two-Dimensional Nanomaterials via Liquid-Based Direct Exfoliation. *Small*, **2016**, 12, 272-93 | 11 | 339 |
| 318 | A Commercial Conducting Polymer as Both Binder and Conductive Additive for Silicon Nanoparticle-Based Lithium-Ion Battery Negative Electrodes. *ACS Nano*, **2016**, 10, 3702-13 | 16.7 | 320 |
| 317 | Quantitative Evaluation of Surfactant-stabilized Single-walled Carbon Nanotubes: Dispersion Quality and Its Correlation with Zeta Potential. *Journal of Physical Chemistry C*, **2008**, 112, 10692-10699 | 3.8 | 315 |
| 316 | 2D-Crystal-Based Functional Inks. *Advanced Materials*, **2016**, 28, 6136-66 | 24 | 315 |
| 315 | Large-Scale Production of Size-Controlled MoS2 Nanosheets by Shear Exfoliation. *Chemistry of Materials*, **2015**, 27, 1129-1139 | 9.6 | 310 |
| 314 | Debundling of single-walled nanotubes by dilution: observation of large populations of individual nanotubes in amide solvent dispersions. *Journal of Physical Chemistry B*, **2006**, 110, 15708-18 | 3.4 | 302 |
| 313 | All-printed thin-film transistors from networks of liquid-exfoliated nanosheets. *Science*, **2017**, 356, 69-73 | 33.3 | 301 |
| 312 | Towards Solutions of Single-Walled Carbon Nanotubes in Common Solvents. *Advanced Materials*, **2008**, 20, 1876-1881 | 24 | 299 |
| 311 | Multicomponent solubility parameters for single-walled carbon nanotube-solvent mixtures. *ACS Nano*, **2009**, 3, 2340-50 | 16.7 | 298 |
| 310 | Guidelines for Exfoliation, Characterization and Processing of Layered Materials Produced by Liquid Exfoliation. *Chemistry of Materials*, **2017**, 29, 243-255 | 9.6 | 282 |
| 309 | Solvent-exfoliated graphene at extremely high concentration. *Langmuir*, **2011**, 27, 9077-82 | 4 | 280 |
| 308 | Production of Highly Monolayer Enriched Dispersions of Liquid-Exfoliated Nanosheets by Liquid Cascade Centrifugation. *ACS Nano*, **2016**, 10, 1589-601 | 16.7 | 271 |
| 307 | Size effects and the problem with percolation in nanostructured transparent conductors. *ACS Nano*, **2010**, 4, 7064-72 | 16.7 | 269 |
| 306 | Broadband ultrafast nonlinear absorption and nonlinear refraction of layered molybdenum dichalcogenide semiconductors. *Nanoscale*, **2014**, 6, 10530-5 | 7.7 | 264 |
| 305 | Development of MoS2–CNT Composite Thin Film from Layered MoS2 for Lithium Batteries. *Advanced Energy Materials*, **2013**, 3, 798-805 | 21.8 | 263 |

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| 304 | Transparent, flexible, and highly conductive thin films based on polymer-nanotube composites. *ACS Nano*, **2009**, 3, 714-20 | 16.7 | 256 |
| 303 | Spray deposition of highly transparent, low-resistance networks of silver nanowires over large areas. *Small*, **2011**, 7, 2621-8 | 11 | 254 |
| 302 | Development of stiff, strong, yet tough composites by the addition of solvent exfoliated graphene to polyurethane. *Carbon*, **2010**, 48, 4035-4041 | 10.4 | 249 |
| 301 | Size selection of dispersed, exfoliated graphene flakes by controlled centrifugation. *Carbon*, **2012**, 50, 470-475 | 10.4 | 240 |
| 300 | Selective Interaction of a Semiconjugated Organic Polymer with Single-Wall Nanotubes. *Journal of Physical Chemistry B*, **2000**, 104, 10012-10016 | 3.4 | 234 |
| 299 | Basal-Plane Functionalization of Chemically Exfoliated Molybdenum Disulfide by Diazonium Salts. *ACS Nano*, **2015**, 9, 6018-30 | 16.7 | 232 |
| 298 | Production of Molybdenum Trioxide Nanosheets by Liquid Exfoliation and Their Application in High-Performance Supercapacitors. *Chemistry of Materials*, **2014**, 26, 1751-1763 | 9.6 | 231 |
| 297 | Improving the mechanical properties of single-walled carbon nanotube sheets by intercalation of polymeric adhesives. *Applied Physics Letters*, **2003**, 82, 1682-1684 | 3.4 | 227 |
| 296 | Liquid Phase Exfoliated MoS2 Nanosheets Percolated with Carbon Nanotubes for High Volumetric/Areal Capacity Sodium-Ion Batteries. *ACS Nano*, **2016**, 10, 8821-8 | 16.7 | 221 |
| 295 | The importance of repulsive potential barriers for the dispersion of graphene using surfactants. *New Journal of Physics*, **2010**, 12, 125008 | 2.9 | 218 |
| 294 | Inkjet deposition of liquid-exfoliated graphene and MoS2 nanosheets for printed device applications. *Journal of Materials Chemistry C*, **2014**, 2, 925-932 | 7.1 | 217 |
| 293 | Improving the mechanical properties of graphene oxide based materials by covalent attachment of polymer chains. *Carbon*, **2013**, 52, 363-371 | 10.4 | 211 |
| 292 | A generic organometallic approach toward ultra-strong carbon nanotube polymer composites. *Journal of the American Chemical Society*, **2004**, 126, 10226-7 | 16.4 | 210 |
| 291 | Electrical characteristics of molybdenum disulfide flakes produced by liquid exfoliation. *Advanced Materials*, **2011**, 23, 4178-82 | 24 | 208 |
| 290 | Reinforcement of polymers with carbon nanotubes. The role of an ordered polymer interfacial region. Experiment and modeling. *Polymer*, **2006**, 47, 8556-8561 | 3.9 | 207 |
| 289 | A Microscopic and Spectroscopic Study of Interactions between Carbon Nanotubes and a Conjugated Polymer. *Journal of Physical Chemistry B*, **2002**, 106, 2210-2216 | 3.4 | 204 |
| 288 | Continuous carbon nanotube composite fibers: properties, potential applications, and problems. *Journal of Materials Chemistry*, **2004**, 14, 1 | | 203 |
| 287 | Electrochemical ascorbic acid sensor based on DMF-exfoliated graphene. *Journal of Materials Chemistry*, **2010**, 20, 7864 | | 202 |

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| 286 | Turbulence-assisted shear exfoliation of graphene using household detergent and a kitchen blender. *Nanoscale*, **2014**, 6, 11810-9 | 7.7 | 200 |
| 285 | Inkjet printing of silver nanowire networks. *ACS Applied Materials & Interfaces*, **2015**, 7, 9254-61 | 9.5 | 199 |
| 284 | Highly flexible and transparent solid-state supercapacitors based on RuO2/PEDOT:PSS conductive ultrathin films. *Nano Energy*, **2016**, 28, 495-505 | 17.1 | 197 |
| 283 | Enhancement of Modulus, Strength, and Toughness in Poly(methyl methacrylate)-Based Composites by the Incorporation of Poly(methyl methacrylate)-Functionalized Nanotubes. *Advanced Functional Materials*, **2006**, 16, 1608-1614 | 15.6 | 196 |
| 282 | The effects of percolation in nanostructured transparent conductors. *MRS Bulletin*, **2011**, 36, 774-781 | 3.2 | 193 |
| 281 | Functionalization of liquid-exfoliated two-dimensional 2H-MoS2. *Angewandte Chemie - International Edition*, **2015**, 54, 2638-42 | 16.4 | 189 |
| 280 | Production and processing of graphene and related materials. *2D Materials*, **2020**, 7, 022001 | 5.9 | 179 |
| 279 | Ultrafast Nonlinear Excitation Dynamics of Black Phosphorus Nanosheets from Visible to Mid-Infrared. *ACS Nano*, **2016**, 10, 6923-32 | 16.7 | 178 |
| 278 | Measuring the lateral size of liquid-exfoliated nanosheets with dynamic light scattering. *Nanotechnology*, **2013**, 24, 265703 | 3.4 | 177 |
| 277 | High capacity silicon anodes enabled by MXene viscous aqueous ink. *Nature Communications*, **2019**, 10, 849 | 17.4 | 174 |
| 276 | Role of Solubility Parameters in Understanding the Steric Stabilization of Exfoliated Two-Dimensional Nanosheets by Adsorbed Polymers. *Journal of Physical Chemistry C*, **2012**, 116, 11393-11400 | 3.8 | 171 |
| 275 | High-pressure Raman spectroscopy of graphene. *Physical Review B*, **2009**, 80, | 3.3 | 168 |
| 274 | Phase Separation of Carbon Nanotubes and Turbostratic Graphite Using a Functional Organic Polymer. *Advanced Materials*, **2000**, 12, 213-216 | 24 | 162 |
| 273 | Polymer reinforcement using liquid-exfoliated boron nitride nanosheets. *Nanoscale*, **2013**, 5, 581-7 | 7.7 | 156 |
| 272 | The spatial uniformity and electromechanical stability of transparent, conductive films of single walled nanotubes. *Carbon*, **2009**, 47, 2466-2473 | 10.4 | 155 |
| 271 | High areal capacity battery electrodes enabled by segregated nanotube networks. *Nature Energy*, **2019**, 4, 560-567 | 62.3 | 153 |
| 270 | Approaching the theoretical limit for reinforcing polymers with graphene. *Journal of Materials Chemistry*, **2012**, 22, 1278-1282 | | 145 |
| 269 | Preparation of Gallium Sulfide Nanosheets by Liquid Exfoliation and Their Application As Hydrogen Evolution Catalysts. *Chemistry of Materials*, **2015**, 27, 3483-3493 | 9.6 | 144 |

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| 268 | Graphene oxide and graphene nanosheet reinforced aluminium matrix composites: Powder synthesis and prepared composite characteristics. *Materials and Design*, **2016**, 94, 87-94 | 8.1 | 143 |
| 267 | Spectroscopic metrics allow in situ measurement of mean size and thickness of liquid-exfoliated few-layer graphene nanosheets. *Nanoscale*, **2016**, 8, 4311-23 | 7.7 | 142 |
| 266 | Nanopatterning and Electrical Tuning of MoS2 Layers with a Subnanometer Helium Ion Beam. *Nano Letters*, **2015**, 15, 5307-13 | 11.5 | 138 |
| 265 | Ag-nanowire films coated with ZnO nanoparticles as a transparent electrode for solar cells. *Applied Physics Letters*, **2011**, 99, 183307 | 3.4 | 136 |
| 264 | Electrical, Mechanical, and Capacity Percolation Leads to High-Performance MoS2/Nanotube Composite Lithium Ion Battery Electrodes. *ACS Nano*, **2016**, 10, 5980-90 | 16.7 | 134 |
| 263 | Nanotube surfactant design: the versatility of water-soluble perylene bisimides. *Advanced Materials* , **2010**, 22, 788-802 | 24 | 128 |
| 262 | Reinforcement in melt-processed polymer□graphene composites at extremely low graphene loading level. *Carbon*, **2014**, 78, 243-249 | 10.4 | 120 |
| 261 | Selective Interaction in a Polymer□ingle-Wall Carbon Nanotube Composite. *Journal of Physical Chemistry B*, **2003**, 107, 478-482 | 3.4 | 120 |
| 260 | Tunable nonlinear refractive index of two-dimensional MoS_2, WS_2, and MoSe_2 nanosheet dispersions [Invited]. *Photonics Research*, **2015**, 3, A51 | 6 | 117 |
| 259 | Quantifying the factors limiting rate□performance in battery electrodes. *Nature Communications*, **2019**, 10, 1933 | 17.4 | 114 |
| 258 | Avoiding Resistance Limitations in High-Performance Transparent Supercapacitor Electrodes Based on Large-Area, High-Conductivity PEDOT:PSS Films. *ACS Applied Materials & Interfaces*, **2015**, 7, 16495-506 | 9.5 | 109 |
| 257 | Relationship between material properties and transparent heater performance for both bulk-like and percolative nanostructured networks. *ACS Nano*, **2014**, 8, 4805-14 | 16.7 | 109 |
| 256 | The dependence of the optoelectrical properties of silver nanowire networks on nanowire length and diameter. *Nanotechnology*, **2012**, 23, 185201 | 3.4 | 107 |
| 255 | Ordered DNA wrapping switches on luminescence in single-walled nanotube dispersions. *Journal of the American Chemical Society*, **2008**, 130, 12734-44 | 16.4 | 107 |
| 254 | Air-stable monodispersed Mo6S3I6nanowires. *Nanotechnology*, **2004**, 15, 635-638 | 3.4 | 107 |
| 253 | The relationship between network morphology and conductivity in nanotube films. *Journal of Applied Physics*, **2008**, 104, 044302 | 2.5 | 106 |
| 252 | Hydrogen evolution across nano-Schottky junctions at carbon supported MoS2 catalysts in biphasic liquid systems. *Chemical Communications*, **2012**, 48, 6484-6 | 5.8 | 105 |
| 251 | Very thin transparent, conductive carbon nanotube films on flexible substrates. *Applied Physics Letters*, **2010**, 97, 023114 | 3.4 | 105 |

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| 250 | Improvement of transparent conducting nanotube films by addition of small quantities of graphene. *ACS Nano*, **2010**, 4, 4238-46 | 16.7 | 102 |
| 249 | Solubility of Mo6S4.5I4.5 nanowires in common solvents: a sedimentation study. *Journal of Physical Chemistry B*, **2005**, 109, 7124-33 | 3.4 | 102 |
| 248 | Thickness Dependence and Percolation Scaling of Hydrogen Production Rate in MoS2 Nanosheet and Nanosheet-Carbon Nanotube Composite Catalytic Electrodes. *ACS Nano*, **2016**, 10, 672-83 | 16.7 | 101 |
| 247 | New Solvents for Nanotubes: Approaching the Dispersibility of Surfactants. *Journal of Physical Chemistry C*, **2010**, 114, 231-237 | 3.8 | 101 |
| 246 | Comparison of liquid exfoliated transition metal dichalcogenides reveals MoSe2 to be the most effective hydrogen evolution catalyst. *Nanoscale*, **2016**, 8, 5737-49 | 7.7 | 100 |
| 245 | Thermoelectric behavior of organic thin film nanocomposites. *Journal of Polymer Science, Part B: Polymer Physics*, **2013**, 51, 119-123 | 2.6 | 99 |
| 244 | Enhanced brightness in organic light-emitting diodes using a carbon nanotube composite as an electron-transport layer. *Journal of Applied Physics*, **2001**, 90, 969-975 | 2.5 | 98 |
| 243 | Electrifying inks with 2D materials. *Nature Nanotechnology*, **2014**, 9, 738-9 | 28.7 | 96 |
| 242 | Carbon nanotubes for reinforcement of plastics? A case study with poly(vinyl alcohol). *Composites Science and Technology*, **2007**, 67, 1640-1649 | 8.6 | 96 |
| 241 | The preparation of hybrid films of carbon nanotubes and nano-graphite/graphene with excellent mechanical and electrical properties. *Carbon*, **2010**, 48, 2825-2830 | 10.4 | 94 |
| 240 | Material Investigation and Optical Limiting Properties of Carbon Nanotube and Nanoparticle Dispersions. *Journal of Physical Chemistry B*, **2003**, 107, 958-964 | 3.4 | 92 |
| 239 | Liquid exfoliation of interlayer spacing-tunable 2D vanadium oxide nanosheets: High capacity and rate handling Li-ion battery cathodes. *Nano Energy*, **2017**, 39, 151-161 | 17.1 | 91 |
| 238 | Improved adhesive strength and toughness of polyvinyl acetate glue on addition of small quantities of graphene. *ACS Applied Materials & Interfaces*, **2013**, 5, 1423-8 | 9.5 | 91 |
| 237 | Spontaneous Debundling of Single-Walled Carbon Nanotubes in DNA-Based Dispersions. *Journal of Physical Chemistry C*, **2007**, 111, 66-74 | 3.8 | 89 |
| 236 | High-Yield, Nondestructive Purification and Quantification Method for Multiwalled Carbon Nanotubes. *Journal of Physical Chemistry B*, **2002**, 106, 3087-3091 | 3.4 | 89 |
| 235 | Mapping of Low-Frequency Raman Modes in CVD-Grown Transition Metal Dichalcogenides: Layer Number, Stacking Orientation and Resonant Effects. *Scientific Reports*, **2016**, 6, 19476 | 4.9 | 88 |
| 234 | Photoconductivity of solution-processed MoS2 films. *Journal of Materials Chemistry C*, **2013**, 1, 6899 | 7.1 | 88 |
| 233 | Observation of Percolation-like Scaling Far from the Percolation Threshold In High Volume Fraction, High Conductivity Polymer-Nanotube Composite Films. *Advanced Materials*, **2007**, 19, 4443-4447 | 24 | 84 |

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|---|---|---|---|
| 232 | Optimisation of the arc-discharge production of multi-walled carbon nanotubes. *Carbon*, **2002**, 40, 923-928 | 28.4 | 84 |
| 231 | Physical Doping of a Conjugated Polymer with Carbon Nanotubes. *Synthetic Metals*, **1999**, 102, 1174-1175 | 3.6 | 84 |
| 230 | Effect of percolation on the capacitance of supercapacitor electrodes prepared from composites of manganese dioxide nanoplatelets and carbon nanotubes. *ACS Nano*, **2014**, 8, 9567-79 | 16.7 | 82 |
| 229 | Reinforcement of poly(vinyl chloride) and polystyrene using chlorinated polypropylene grafted carbon nanotubes. *Journal of Materials Chemistry*, **2006**, 16, 4206 | | 81 |
| 228 | Carbon-nanotube nucleated crystallinity in a conjugated polymer based composite. *Chemical Physics Letters*, **2004**, 391, 329-333 | 2.5 | 81 |
| 227 | Percolation effects in supercapacitors with thin, transparent carbon nanotube electrodes. *ACS Nano*, **2012**, 6, 1732-41 | 16.7 | 80 |
| 226 | Evolution and evaluation of the polymer/nanotube composite. *Synthetic Metals*, **1999**, 103, 2559-2562 | 3.6 | 80 |
| 225 | Electrochemical Applications of Two-Dimensional Nanosheets: The Effect of Nanosheet Length and Thickness. *Chemistry of Materials*, **2016**, 28, 2641-2651 | 9.6 | 79 |
| 224 | High-strength, high-toughness composite fibers by swelling Kevlar in nanotube suspensions. *Small*, **2009**, 5, 466-9 | 11 | 78 |
| 223 | Charge transport effects in field emission from carbon nanotube-polymer composites. *Applied Physics Letters*, **2005**, 87, 263105 | 3.4 | 77 |
| 222 | Liquid Exfoliated Co(OH)2 Nanosheets as Low-Cost, Yet High-Performance, Catalysts for the Oxygen Evolution Reaction. *Advanced Energy Materials*, **2018**, 8, 1702965 | 21.8 | 75 |
| 221 | DMF-exfoliated graphene for electrochemical NADH detection. *Physical Chemistry Chemical Physics*, **2011**, 13, 7747-50 | 3.6 | 74 |
| 220 | Influence of hard segment content and nature on polyurethane/multiwalled carbon nanotube composites. *Composites Science and Technology*, **2011**, 71, 1030-1038 | 8.6 | 73 |
| 219 | Equipartition of Energy Defines the Size-Thickness Relationship in Liquid-Exfoliated Nanosheets. *ACS Nano*, **2019**, 13, 7050-7061 | 16.7 | 71 |
| 218 | Percolation scaling in composites of exfoliated MoS2 filled with nanotubes and graphene. *Nanoscale*, **2012**, 4, 6260-4 | 7.7 | 71 |
| 217 | High-Performance Transparent Conductors from Networks of Gold Nanowires. *Journal of Physical Chemistry Letters*, **2011**, 2, 3058-3062 | 6.4 | 71 |
| 216 | Enhancing the mechanical properties of BN nanosheet-polymer composites by uniaxial drawing. *Nanoscale*, **2014**, 6, 4889-95 | 7.7 | 70 |
| 215 | Reinforcement of macroscopic carbon nanotube structures by polymer intercalation: The role of polymer molecular weight and chain conformation. *Physical Review B*, **2005**, 72, | 3.3 | 70 |

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| 214 | Large variations in both dark- and photoconductivity in nanosheet networks as nanomaterial is varied from MoS2 to WTe2. *Nanoscale*, **2015**, 7, 198-208 | 7.7 | 68 |
| 213 | Strong dependence of mechanical properties on fiber diameter for polymer-nanotube composite fibers: differentiating defect from orientation effects. *ACS Nano*, **2010**, 4, 6989-97 | 16.7 | 68 |
| 212 | Large Populations of Individual Nanotubes in Surfactant-Based Dispersions without the Need for Ultracentrifugation. *Journal of Physical Chemistry C*, **2008**, 112, 972-977 | 3.8 | 68 |
| 211 | Helium ion microscopy of graphene: beam damage, image quality and edge contrast. *Nanotechnology*, **2013**, 24, 335702 | 3.4 | 65 |
| 210 | Manipulating connectivity and electrical conductivity in metallic nanowire networks. *Nano Letters*, **2012**, 12, 5966-71 | 11.5 | 65 |
| 209 | Carbon-nanotube-polymer nanocomposites for field-emission cathodes. *Small*, **2009**, 5, 826-31 | 11 | 65 |
| 208 | Chemical functionalisation of titania nanotubes and their utilisation for the fabrication of reinforced polystyrene composites. *Journal of Materials Chemistry*, **2007**, 17, 2351 | | 65 |
| 207 | Generalizing solubility parameter theory to apply to one- and two-dimensional solutes and to incorporate dipolar interactions. *Journal of Applied Polymer Science*, **2013**, 127, 4483-4491 | 2.9 | 64 |
| 206 | Covalently functionalized hexagonal boron nitride nanosheets by nitrene addition. *Chemistry - A European Journal*, **2012**, 18, 10808-12 | 4.8 | 64 |
| 205 | Nonlinear optical response of multiwalled carbon-nanotube dispersions. *Journal of the Optical Society of America B: Optical Physics*, **2003**, 20, 49 | 1.7 | 63 |
| 204 | Biomolecules as selective dispersants for carbon nanotubes. *Carbon*, **2005**, 43, 1879-1884 | 10.4 | 62 |
| 203 | Photoluminescence from Liquid-Exfoliated WS2 Monomers in Poly(Vinyl Alcohol) Polymer Composites. *Advanced Functional Materials*, **2016**, 26, 1028-1039 | 15.6 | 62 |
| 202 | Transition metal dichalcogenide growth via close proximity precursor supply. *Scientific Reports*, **2014**, 4, 7374 | 4.9 | 60 |
| 201 | Electroconductive Biohybrid Collagen/Pristine Graphene Composite Biomaterials with Enhanced Biological Activity. *Advanced Materials*, **2018**, 30, e1706442 | 24 | 60 |
| 200 | Production of Ni(OH)2 nanosheets by liquid phase exfoliation: from optical properties to electrochemical applications. *Journal of Materials Chemistry A*, **2016**, 4, 11046-11059 | 13 | 60 |
| 199 | Observation of mechanical percolation in functionalized graphene oxide/elastomer composites. *Carbon*, **2012**, 50, 4489-4494 | 10.4 | 60 |
| 198 | Microscopy studies of nanotube-conjugated polymer interactions. *Synthetic Metals*, **2001**, 121, 1225-1226 | 3.6 | 60 |
| 197 | Mechanisms of Liquid-Phase Exfoliation for the Production of Graphene. *ACS Nano*, **2020**, 14, 10976-10985 | 15.7 | 59 |

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| 196 | The Effect of Nanotube Content and Orientation on the Mechanical Properties of Polymer–Nanotube Composite Fibers: Separating Intrinsic Reinforcement from Orientational Effects. *Advanced Functional Materials*, **2011**, 21, 364-371 | 15.6 | 59 |
| 195 | Binding Kinetics and SWNT Bundle Dissociation in Low Concentration Polymer–Nanotube Dispersions. *Journal of Physical Chemistry B*, **2004**, 108, 3446-3450 | 3.4 | 59 |
| 194 | Enabling Flexible Heterostructures for Li-Ion Battery Anodes Based on Nanotube and Liquid-Phase Exfoliated 2D Gallium Chalcogenide Nanosheet Colloidal Solutions. *Small*, **2017**, 13, 1701677 | 11 | 57 |
| 193 | Dibromocarbene Functionalization of Boron Nitride Nanosheets: Toward Band Gap Manipulation and Nanocomposite Applications. *Chemistry of Materials*, **2014**, 26, 7039-7050 | 9.6 | 57 |
| 192 | Autophagy induction by silver nanowires: a new aspect in the biocompatibility assessment of nanocomposite thin films. *Toxicology and Applied Pharmacology*, **2012**, 264, 451-61 | 4.6 | 57 |
| 191 | Biological recognition of graphene nanoflakes. *Nature Communications*, **2018**, 9, 1577 | 17.4 | 55 |
| 190 | High Quality Dispersions of Functionalized Single Walled Nanotubes at High Concentration. *Journal of Physical Chemistry C*, **2008**, 112, 3519-3524 | 3.8 | 55 |
| 189 | Strong, Tough, Electrospun Polymer–Nanotube Composite Membranes with Extremely Low Density. *Advanced Functional Materials*, **2008**, 18, 2618-2624 | 15.6 | 55 |
| 188 | Multifunctional Carbon Nanotube Composite Fibers. *Advanced Engineering Materials*, **2004**, 6, 801-804 | 3.5 | 55 |
| 187 | Observation of site selective binding in a polymer nanotube composite. *Journal of Materials Science Letters*, **2000**, 19, 2239-2241 | | 55 |
| 186 | All-printed capacitors from graphene-BN-graphene nanosheet heterostructures. *Applied Physics Letters*, **2016**, 109, 023107 | 3.4 | 54 |
| 185 | Solubility of Mo6S4.5I4.5 nanowires. *Chemical Physics Letters*, **2005**, 401, 13-18 | 2.5 | 53 |
| 184 | White Graphene undergoes Peroxidase Degradation. *Angewandte Chemie - International Edition*, **2016**, 55, 5506-11 | 16.4 | 51 |
| 183 | Arbitrarily Shaped Fiber Assemblies from Spun Carbon Nanotube Gel Fibers. *Advanced Functional Materials*, **2007**, 17, 2918-2924 | 15.6 | 50 |
| 182 | Comparison of carbon nanotubes and nanodisks as percolative fillers in electrically conductive composites. *Scripta Materialia*, **2008**, 58, 69-72 | 5.6 | 49 |
| 181 | Multiwalled carbon nanotube nucleated crystallization and reinforcement in poly (vinyl alcohol) composites. *Synthetic Metals*, **2006**, 156, 332-335 | 3.6 | 49 |
| 180 | Nitrogen assisted etching of graphene layers in a scanning electron microscope. *Applied Physics Letters*, **2011**, 98, 243117 | 3.4 | 48 |
| 179 | The effect of solvent choice on the mechanical properties of carbon nanotube–polymer composites. *Composites Science and Technology*, **2007**, 67, 3158-3167 | 8.6 | 48 |

| | | | |
|---|---|---|---|
| 178 | A Technique To Pretreat Graphite Which Allows the Rapid Dispersion of Defect-Free Graphene in Solvents at High Concentration. *Journal of Physical Chemistry C*, **2013**, 117, 19212-19218 | 3.8 | 46 |
| 177 | Optical Spectroscopy of Isolated and Aggregate Hexabenzocoronene Derivatives: A Study of Self-Assembling Molecular Nanowires. *Journal of Physical Chemistry B*, **2003**, 107, 37-43 | 3.4 | 46 |
| 176 | Boron nitride nanosheets as barrier enhancing fillers in melt processed composites. *Nanoscale*, **2015**, 7, 4443-50 | 7.7 | 45 |
| 175 | A functional conjugated polymer to process, purify and selectively interact with single wall carbon nanotubes. *Synthetic Metals*, **2001**, 121, 1217-1218 | 3.6 | 45 |
| 174 | Mechanical properties of individual electrospun polymer-nanotube composite nanofibers. *Carbon*, **2009**, 47, 2253-2258 | 10.4 | 44 |
| 173 | On the factors controlling the mechanical properties of nanotube films. *Carbon*, **2008**, 46, 41-47 | 10.4 | 44 |
| 172 | Spectroscopic Size and Thickness Metrics for Liquid-Exfoliated h-BN. *Chemistry of Materials*, **2018**, 30, 1998-2005 | 9.6 | 43 |
| 171 | High quality dispersions of hexabenzocoronene in organic solvents. *Journal of the American Chemical Society*, **2012**, 134, 12168-79 | 16.4 | 43 |
| 170 | Exfoliation in ecstasy: liquid crystal formation and concentration-dependent debundling observed for single-wall nanotubes dispersed in the liquid drug γ-butyrolactone. *Nanotechnology*, **2007**, 18, 455705 | 3.4 | 43 |
| 169 | Exfoliation of 2D materials by high shear mixing. *2D Materials*, **2019**, 6, 015008 | 5.9 | 43 |
| 168 | Probing the local nature of excitons and plasmons in few-layer MoS2. *Npj 2D Materials and Applications*, **2017**, 1, | 8.8 | 41 |
| 167 | Selective Mechanical Reinforcement of Thermoplastic Polyurethane by Targeted Insertion of Functionalized SWCNTs. *Journal of Physical Chemistry C*, **2010**, 114, 11401-11408 | 3.8 | 41 |
| 166 | Kevlar coated carbon nanotubes for reinforcement of polyvinylchloride. *Journal of Materials Chemistry*, **2008**, 18, 5585 | | 41 |
| 165 | Observation of van der Waals Driven Self-Assembly of MoSI Nanowires into a Low-Symmetry Structure Using Aberration-Corrected Electron Microscopy. *Advanced Materials*, **2007**, 19, 543-547 | 24 | 41 |
| 164 | Geometric constraints in the growth of nanotube-templated polymer monolayers. *Applied Physics Letters*, **2004**, 84, 798-800 | 3.4 | 41 |
| 163 | High strength composite fibres from polyester filled with nanotubes and graphene. *Journal of Materials Chemistry*, **2012**, 22, 12907 | | 40 |
| 162 | Control of Optical Limiting of Carbon Nanotube Dispersions by Changing Solvent Parameters. *Journal of Physical Chemistry C*, **2010**, 114, 6148-6156 | 3.8 | 39 |
| 161 | Negative Gauge Factor Piezoresistive Composites Based on Polymers Filled with MoS Nanosheets. *ACS Nano*, **2019**, 13, 6845-6855 | 16.7 | 37 |

| | | | |
|---|---|---|---|
| 160 | Experimental and theoretical study of the influence of the state of dispersion of graphene on the percolation threshold of conductive graphene/polystyrene nanocomposites. *ACS Applied Materials & Interfaces*, **2014**, 6, 15113-21 | 9.5 | 37 |
| 159 | Fabrication of stable dispersions containing up to 70% individual carbon nanotubes in a common organic solvent. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 3058-3062 | 1.3 | 37 |
| 158 | Controlling the optical properties of a conjugated co-polymer through variation of backbone isomerism and the introduction of carbon nanotubes. *Journal of Photochemistry and Photobiology A: Chemistry*, **2001**, 144, 31-41 | 4.7 | 37 |
| 157 | Non-resonant light scattering in dispersions of 2D nanosheets. *Nature Communications*, **2018**, 9, 4553 | 17.4 | 37 |
| 156 | Industrial grade 2D molybdenum disulphide (MoS 2 ): an in vitro exploration of the impact on cellular uptake, cytotoxicity, and inflammation. *2D Materials*, **2017**, 4, 025065 | 5.9 | 36 |
| 155 | The Rate Performance of Two-Dimensional Material-Based Battery Electrodes May Not Be as Good as Commonly Believed. *ACS Nano*, **2020**, 14, 3129-3140 | 16.7 | 36 |
| 154 | Graphene-coated polymer foams as tuneable impact sensors. *Nanoscale*, **2018**, 10, 5366-5375 | 7.7 | 36 |
| 153 | Surface coatings of silver nanowires lead to effective, high conductivity, high-strain, ultrathin sensors. *Nanoscale*, **2017**, 9, 18507-18515 | 7.7 | 36 |
| 152 | Study of the mechanical, electrical and morphological properties of PU/MWCNT composites obtained by two different processing routes. *Composites Science and Technology*, **2012**, 72, 235-242 | 8.6 | 36 |
| 151 | Polymer grafting to single-walled carbon nanotubes: effect of chain length on solubility, graft density and mechanical properties of macroscopic structures. *Small*, **2013**, 9, 552-60 | 11 | 36 |
| 150 | Polymer Reinforcement with Kevlar-Coated Carbon Nanotubes. *Journal of Physical Chemistry C*, **2009**, 113, 20184-20192 | 3.8 | 36 |
| 149 | Physical properties of novel free-standing polymer nanotube thin films. *Carbon*, **2006**, 44, 1525-1529 | 10.4 | 35 |
| 148 | Nonlinear photoluminescence from van Hove singularities in multiwalled carbon nanotubes. *Optics Letters*, **2003**, 28, 266-8 | 3 | 35 |
| 147 | Complex nano-assemblies of polymers and carbon nanotubes. *Nanotechnology*, **2001**, 12, 187-190 | 3.4 | 35 |
| 146 | Optical Absorption and Fluorescence of a Multi-walled Nanotube-Polymer Composite. *Synthetic Metals*, **1999**, 102, 1176-1177 | 3.6 | 34 |
| 145 | Quantifying the Effect of Electronic Conductivity on the Rate Performance of Nanocomposite Battery Electrodes. *ACS Applied Energy Materials*, **2020**, 3, 2966-2974 | 6.1 | 34 |
| 144 | High stiffness nano-composite fibres from polyvinylalcohol filled with graphene and boron nitride. *Carbon*, **2016**, 99, 280-288 | 10.4 | 33 |
| 143 | Development of transparent, conducting composites by surface infiltration of nanotubes into commercial polymer films. *Carbon*, **2009**, 47, 1983-1988 | 10.4 | 33 |

| | | | |
|---|---|---|---|
| 142 | Flexible, transparent dielectric capacitors with nanostructured electrodes. *Applied Physics Letters*, **2012**, 101, 103106 | 3.4 | 33 |
| 141 | Observation of extremely low percolation threshold in MoSI nanowire/polymer composites. *Scripta Materialia*, **2006**, 54, 417-420 | 5.6 | 33 |
| 140 | Dispersion and purification of Mo6S3I6 nanowires in organic solvents. *Journal of Applied Physics*, **2007**, 101, 014317 | 2.5 | 33 |
| 139 | Size-dependent saturable absorption and mode-locking of dispersed black phosphorus nanosheets. *Optical Materials Express*, **2016**, 6, 3159 | 2.6 | 33 |
| 138 | Slow and fast absorption saturation of black phosphorus: experiment and modelling. *Nanoscale*, **2016**, 8, 17374-17382 | 7.7 | 33 |
| 137 | Functionalization of Liquid-Exfoliated Two-Dimensional 2H-MoS2. *Angewandte Chemie*, **2015**, 127, 2676-2680 | 3.6 | 32 |
| 136 | Electrochemical water oxidation: The next five years. *Current Opinion in Electrochemistry*, **2018**, 7, 31-35 | 7.2 | 32 |
| 135 | Insulator-Conductor Type Transitions in Graphene-Modified Silver Nanowire Networks: A Route to Inexpensive Transparent Conductors. *Advanced Functional Materials*, **2014**, 24, 7580-7587 | 15.6 | 32 |
| 134 | Electron paramagnetic resonance as a quantitative tool for the study of multiwalled carbon nanotubes. *Journal of Chemical Physics*, **2000**, 113, 9788-9793 | 3.9 | 32 |
| 133 | Electronic Polarizability as the Fundamental Variable in the Dielectric Properties of Two-Dimensional Materials. *Nano Letters*, **2020**, 20, 841-851 | 11.5 | 31 |
| 132 | Liquid phase exfoliation of carbonate-intercalated layered double hydroxides. *Chemical Communications*, **2019**, 55, 3315-3318 | 5.8 | 30 |
| 131 | Tuning the mechanical properties of composites from elastomeric to rigid thermoplastic by controlled addition of carbon nanotubes. *Small*, **2011**, 7, 1579-86 | 11 | 30 |
| 130 | Exploring the versatility of liquid phase exfoliation: producing 2D nanosheets from talcum powder, cat litter and beach sand. *2D Materials*, **2017**, 4, 025054 | 5.9 | 29 |
| 129 | Liquid phase exfoliation of MoO2 nanosheets for lithium ion battery applications. *Nanoscale Advances*, **2019**, 1, 1560-1570 | 5.1 | 29 |
| 128 | Mechanochromic and Thermochromic Sensors Based on Graphene Infused Polymer Opals. *Advanced Functional Materials*, **2020**, 30, 2002473 | 15.6 | 29 |
| 127 | Spontaneous exfoliation of single-walled carbon nanotubes dispersed using a designed amphiphilic peptide. *Biomacromolecules*, **2008**, 9, 598-602 | 6.9 | 29 |
| 126 | Towards tough, yet stiff, composites by filling an elastomer with single-walled nanotubes at very high loading levels. *Nanotechnology*, **2008**, 19, 415709 | 3.4 | 29 |
| 125 | A carbon nanotube composite as an electron transport layer for M3EH-PPV based light-emitting diodes. *Synthetic Metals*, **2001**, 121, 1683-1684 | 3.6 | 29 |

| | | | |
|---|---|---|---|
| 124 | Quantifying the Trade-Off between Absolute Capacity and Rate Performance in Battery Electrodes. *Advanced Energy Materials*, **2019**, 9, 1901359 | 21.8 | 28 |
| 123 | Selective electrochemical production of hydrogen peroxide at zigzag edges of exfoliated molybdenum telluride nanoflakes. *National Science Review*, **2020**, 7, 1360-1366 | 10.8 | 27 |
| 122 | Relating the optical absorption coefficient of nanosheet dispersions to the intrinsic monolayer absorption. *Carbon*, **2016**, 107, 733-738 | 10.4 | 27 |
| 121 | The Effect of Network Formation on the Mechanical Properties of 1D:2D Nano:Nano Composites. *Chemistry of Materials*, **2018**, 30, 5245-5255 | 9.6 | 27 |
| 120 | Debundling by dilution: Observation of significant populations of individual MoSI nanowires in high concentration dispersions. *Chemical Physics Letters*, **2006**, 425, 89-93 | 2.5 | 27 |
| 119 | Length- and Thickness-Dependent Optical Response of Liquid-Exfoliated Transition Metal Dichalcogenides. *Chemistry of Materials*, **2019**, 31, 10049-10062 | 9.6 | 27 |
| 118 | Solvent exfoliation stabilizes TiS nanosheets against oxidation, facilitating lithium storage applications. *Nanoscale*, **2019**, 11, 6206-6216 | 7.7 | 26 |
| 117 | Increased response/recovery lifetimes and reinforcement of polyaniline nanofiber films using carbon nanotubes. *Carbon*, **2012**, 50, 1447-1454 | 10.4 | 26 |
| 116 | Understanding the Dispersion and Assembly of Bacterial Cellulose in Organic Solvents. *Biomacromolecules*, **2016**, 17, 1845-53 | 6.9 | 25 |
| 115 | Cobalt hydroxide nanoflakes and their application as supercapacitors and oxygen evolution catalysts. *Nanotechnology*, **2017**, 28, 375401 | 3.4 | 25 |
| 114 | Upper bound for the conductivity of nanotube networks. *Applied Physics Letters*, **2009**, 95, 123106 | 3.4 | 25 |
| 113 | Spectroscopic investigation of conjugated polymer/single-walled carbon nanotube interactions. *Chemical Physics Letters*, **2001**, 350, 27-32 | 2.5 | 25 |
| 112 | Quantifying the Role of Nanotubes in Nano:Nano Composite Supercapacitor Electrodes. *Advanced Energy Materials*, **2018**, 8, 1702364 | 21.8 | 25 |
| 111 | Physical mechanism for the mechanical reinforcement in nanotube-polymer composite materials. *Physical Review B*, **2005**, 71, | 3.3 | 24 |
| 110 | Quantifying the contributions of inner-filter, re-absorption and aggregation effects in the photoluminescence of high-concentration conjugated polymer solutions. *Journal of Luminescence*, **2008**, 128, 31-40 | 3.8 | 23 |
| 109 | Enhanced adsorption affinity of anionic perylene-based surfactants towards smaller-diameter SWCNTs. *Chemistry - A European Journal*, **2010**, 16, 13185-92 | 4.8 | 22 |
| 108 | Covalently interconnected transition metal dichalcogenide networks via defect engineering for high-performance electronic devices. *Nature Nanotechnology*, **2021**, 16, 592-598 | 28.7 | 22 |
| 107 | Low wavenumber Raman spectroscopy of highly crystalline MoSe2 grown by chemical vapor deposition. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 2385-2389 | 1.3 | 21 |

| | | | |
|---|---|---|---|
| 106 | Inverting Polyurethanes Synthesis: Effects on Nano/Micro-Structure and Mechanical Properties. *Soft Materials*, **2010**, 9, 79-93 | 1.7 | 21 |
| 105 | Toughening of artificial silk by incorporation of carbon nanotubes. *Biomacromolecules*, **2007**, 8, 3973-6 | 6.9 | 21 |
| 104 | The electrical conductivity of solution-processed nanosheet networks. *Nature Reviews Materials*, | 73.3 | 21 |
| 103 | Differentiating Defect and Basal Plane Contributions to the Surface Energy of Graphite Using Inverse Gas Chromatography. *Chemistry of Materials*, **2016**, 28, 6355-6366 | 9.6 | 21 |
| 102 | Extra lithium-ion storage capacity enabled by liquid-phase exfoliated indium selenide nanosheets conductive network. *Energy and Environmental Science*, **2020**, 13, 2124-2133 | 35.4 | 20 |
| 101 | Robustness of Size Selection and Spectroscopic Size, Thickness and Monolayer Metrics of Liquid-Exfoliated WS2. *Physica Status Solidi (B): Basic Research*, **2017**, 254, 1700443 | 1.3 | 20 |
| 100 | Production of Quasi-2D Platelets of Nonlayered Iron Pyrite (FeS) by Liquid-Phase Exfoliation for High Performance Battery Electrodes. *ACS Nano*, **2020**, 14, 13418-13432 | 16.7 | 20 |
| 99 | Lateral size selection of surfactant-stabilised graphene flakes using size exclusion chromatography. *Chemical Physics Letters*, **2012**, 531, 169-172 | 2.5 | 19 |
| 98 | Additive Manufacturing of Ti C MXene-Functionalized Conductive Polymer Hydrogels for Electromagnetic-Interference Shielding. *Advanced Materials*, **2021**, e2106253 | 24 | 19 |
| 97 | Charge trapping and coalescence dynamics in few layer MoS 2. *2D Materials*, **2018**, 5, 015011 | 5.9 | 18 |
| 96 | Whiskey-phase exfoliation: exfoliation and printing of nanosheets using Irish whiskey. *2D Materials*, **2019**, 6, 045036 | 5.9 | 18 |
| 95 | Density controlled conductivity of pristine graphene films. *Carbon*, **2013**, 64, 435-443 | 10.4 | 18 |
| 94 | Production of monolayer-rich gold-decorated 2H WS2 nanosheets by defect engineering. *Npj 2D Materials and Applications*, **2017**, 1, | 8.8 | 18 |
| 93 | Liquid phase exfoliation of GeS nanosheets in ambient conditions for lithium ion battery applications. *2D Materials*, **2020**, 7, 035015 | 5.9 | 18 |
| 92 | Quantitative comparison of ultracentrifuged and diluted single walled nanotube dispersions; differences in dispersion quality. *Chemical Physics Letters*, **2009**, 474, 122-126 | 2.5 | 17 |
| 91 | Liquid Exfoliated SnP3 Nanosheets for Very High Areal Capacity Lithium-Ion Batteries. *Advanced Energy Materials*, **2021**, 11, 2002364 | 21.8 | 17 |
| 90 | Carbon nanotubes-bridged molybdenum trioxide nanosheets as high performance anode for lithium ion batteries. *2D Materials*, **2018**, 5, 015024 | 5.9 | 17 |
| 89 | Percolation Effects in Electrolytically Gated WS/Graphene Nano:Nano Composites. *ACS Applied Materials & Interfaces*, **2019**, 11, 8545-8555 | 9.5 | 16 |

| | | | |
|---|---|---|---|
| 88 | Pristine graphene induces innate immune training. *Nanoscale*, **2020**, 12, 11192-11200 | 7.7 | 16 |
| 87 | Dispersion and Exfoliation of Nanotubes with Synthetic Oligonucleotides: Variation of Dispersion Efficiency and Oligo-Nanotube Interaction with Base Type. *Journal of Physical Chemistry C*, **2010**, 114, 11741-11747 | 3.8 | 16 |
| 86 | Effects of Ambient Conditions on Solvent□Nanotube Dispersions: Exposure to Water and Temperature Variation. *Journal of Physical Chemistry C*, **2009**, 113, 1260-1266 | 3.8 | 16 |
| 85 | Effect of Surfactant Choice and Concentration on the Dimensions and Yield of Liquid-Phase-Exfoliated Nanosheets. *Chemistry of Materials*, **2020**, 32, 2852-2862 | 9.6 | 15 |
| 84 | An investigation of the energy storage properties of a 2D □MoO 3 -SWCNTs composite films. *2D Materials*, **2017**, 4, 015005 | 5.9 | 15 |
| 83 | Using solution thermodynamics to describe the dispersion of rod-like solutes: application to dispersions of carbon nanotubes in organic solvents. *Nanotechnology*, **2012**, 23, 265604 | 3.4 | 15 |
| 82 | Preparation of buckypaper-copper composites and investigation of their conductivity and mechanical properties. *ChemPhysChem*, **2009**, 10, 774-7 | 3.2 | 15 |
| 81 | Exfoliation of Mo6SxI9-xnanowires in common solvents. *EPJ Applied Physics*, **2007**, 37, 149-159 | 1.1 | 15 |
| 80 | Nonlinear optical response of Mo6S4.5I4.5 nanowires. *Chemical Physics Letters*, **2007**, 435, 109-113 | 2.5 | 15 |
| 79 | High Performance Na-O Batteries and Printed Microsupercapacitors Based on Water-Processable, Biomolecule-Assisted Anodic Graphene. *ACS Applied Materials & Interfaces*, **2020**, 12, 494-506 | 9.5 | 15 |
| 78 | Ru Photosensitizer-Functionalized Two-Dimensional MoS for Light-Driven Hydrogen Evolution. *Chemistry - A European Journal*, **2018**, 24, 351-355 | 4.8 | 15 |
| 77 | Dependence of Photocurrent Enhancements in Quantum Dot (QD)-Sensitized MoS2 Devices on MoS2 Film Properties. *Advanced Functional Materials*, **2018**, 28, 1706149 | 15.6 | 14 |
| 76 | Preparation of Liquid-exfoliated Transition Metal Dichalcogenide Nanosheets with Controlled Size and Thickness: A State of the Art Protocol. *Journal of Visualized Experiments*, **2016**, | 1.6 | 14 |
| 75 | Materials science of graphene: a flagship perspective. *2D Materials*, **2016**, 3, 010401 | 5.9 | 14 |
| 74 | Systematic trends in the synthesis of (meta-phenylene vinylene) copolymers. *Synthetic Metals*, **2001** , 119, 151-152 | 3.6 | 14 |
| 73 | White Graphene undergoes Peroxidase Degradation. *Angewandte Chemie*, **2016**, 128, 5596-5601 | 3.6 | 14 |
| 72 | The dependence of the measured surface energy of graphene on nanosheet size. *2D Materials*, **2017**, 4, 015040 | 5.9 | 13 |
| 71 | Yielding and flow of highly concentrated, few-layer graphene suspensions. *Soft Matter*, **2015**, 11, 3159-64 | 3.6 | 13 |

| | | | |
|---|---|---|---|
| 70 | Optical properties of Mo6S3I6 nanowires. *Physical Review B*, **2007**, 76, | 3.3 | 13 |
| 69 | Measurement of nanotube content in pyrolytically generated carbon soot. *Chemical Communications*, **2000**, 2001-2002 | 5.8 | 13 |
| 68 | Ferroelectric Behavior in Exfoliated 2D Aurivillius Oxide Flakes of Sub-Unit Cell Thickness. *Advanced Electronic Materials*, **2020**, 6, 1901264 | 6.4 | 13 |
| 67 | A comparison of catabolic pathways induced in primary macrophages by pristine single walled carbon nanotubes and pristine graphene. *RSC Advances*, **2016**, 6, 65299-65310 | 3.7 | 12 |
| 66 | Carbon Nanotube Nucleated Polymer Crystallization. *Fullerenes Nanotubes and Carbon Nanostructures*, **2005**, 13, 431-434 | 1.8 | 12 |
| 65 | Solubility and purity of nanotubes in arc discharge carbon powder. *Synthetic Metals*, **2001**, 121, 1229-1230 | 3.6 | 12 |
| 64 | Optimising composite viscosity leads to high sensitivity electromechancial sensors. *2D Materials*, **2018**, 5, 035042 | 5.9 | 11 |
| 63 | Reinforcement of metal with liquid-exfoliated inorganic nano-platelets. *Applied Physics Letters*, **2013**, 103, 163106 | 3.4 | 11 |
| 62 | A Simple Model Relating Gauge Factor to Filler Loading in Nanocomposite Strain Sensors.. *ACS Applied Nano Materials*, **2021**, 4, 2876-2886 | 5.6 | 11 |
| 61 | On the relationship between morphology and conductivity in nanosheet networks. *Carbon*, **2021**, 171, 306-319 | 10.4 | 11 |
| 60 | Graphene-MoS2nanosheet composites as electrodes for dye sensitised solar cells. *Materials Research Express*, **2016**, 3, 035007 | 1.7 | 10 |
| 59 | Tuneable photoconductivity and mobility enhancement in printed MoS 2 /graphene composites. *2D Materials*, **2017**, 4, 041006 | 5.9 | 10 |
| 58 | Nonlinear photoluminescence in multiwall carbon nanotubes. *Synthetic Metals*, **2001**, 119, 641-642 | 3.6 | 10 |
| 57 | All-Printed Dielectric Capacitors from High-Permittivity, Liquid-Exfoliated BiOCl Nanosheets. *ACS Applied Electronic Materials*, **2020**, 2, 3233-3241 | 4 | 10 |
| 56 | Sub-5 nm graphene nanopore fabrication by nitrogen ion etching induced by a low-energy electron beam. *Nanotechnology*, **2016**, 27, 195302 | 3.4 | 10 |
| 55 | Revealing the nature of excitons in liquid exfoliated monolayer tungsten disulphide. *Nanotechnology*, **2016**, 27, 425701 | 3.4 | 10 |
| 54 | Using chronoamperometry to rapidly measure and quantitatively analyse rate-performance in battery electrodes. *Journal of Power Sources*, **2020**, 468, 228220 | 8.9 | 9 |
| 53 | Magnetism in nanoscale graphite flakes as seen via electron spin resonance. *Physical Review B*, **2012**, 85, | 3.3 | 9 |

| | | | |
|---|---|---|---|
| 52 | Long-chain amine-templated synthesis of gallium sulfide and gallium selenide nanotubes. *Nanoscale*, **2016**, 8, 11698-706 | 7.7 | 9 |
| 51 | In vitrolocalisation and degradation of few-layer MoS2submicrometric plates in human macrophage-like cells: a label free Raman micro-spectroscopic study. *2D Materials*, **2020**, 7, 025003 | 5.9 | 8 |
| 50 | Quantifying the Dependence of Battery Rate Performance on Electrode Thickness. *ACS Applied Energy Materials*, **2020**, 3, 10154-10163 | 6.1 | 8 |
| 49 | Self-Assembly of Atomically Thin Chiral Copper Heterostructures Templated by Black Phosphorus. *Advanced Functional Materials*, **2019**, 29, 1903120 | 15.6 | 7 |
| 48 | Alternating and direct current characterization and photoinduced absorption studies of modified conjugated polymer thin films. *Journal of Applied Physics*, **2004**, 95, 6138-6144 | 2.5 | 7 |
| 47 | Developing models to fit capacity fade data in battery systems. *Current Opinion in Electrochemistry*, **2020**, 21, 1-6 | 7.2 | 7 |
| 46 | Printable G-Putty for Frequency- and Rate-Independent, High-Performance Strain Sensors. *Small*, **2021**, 17, e2006542 | 11 | 7 |
| 45 | Exfoliation in Endotoxin-Free Albumin Generates Pristine Graphene with Reduced Inflammatory Properties. *Advanced Biology*, **2018**, 2, 1800102 | 3.5 | 7 |
| 44 | Transparent conducting films from NbSe3 nanowires. *Nanotechnology*, **2011**, 22, 285202 | 3.4 | 6 |
| 43 | Efficient dispersion and exfoliation of single-walled nanotubes in 3-aminopropyltriethoxysilane and its derivatives. *Nanotechnology*, **2008**, 19, 485702 | 3.4 | 6 |
| 42 | High electron injection currents from a nanotube composite in an organic heterojunction. *Synthetic Metals*, **2001**, 121, 1227-1228 | 3.6 | 6 |
| 41 | Highly Conductive Graphene and Polyelectrolyte Multilayer Thin Films Produced From Aqueous Suspension. *Macromolecular Rapid Communications*, **2016**, 37, 1790-1794 | 4.8 | 6 |
| 40 | Liquid-phase Exfoliation of Nonlayered non-van der Waals Crystals into Nanoplatelets.. *Advanced Materials*, **2022**, e2202164 | 24 | 6 |
| 39 | Light scattering and random lasing in aqueous suspensions of hexagonal boron nitride nanoflakes. *Nanotechnology*, **2017**, 28, 47LT02 | 3.4 | 5 |
| 38 | Nanotube Content in Arc Generated Carbon Powder. *Monatshefte F□ Chemie*, **2001**, 132, 53-61 | 1.4 | 5 |
| 37 | Distributed response analysis of conductive behavior in single molecules. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99 Suppl 2, 6514-7 | 11.5 | 5 |
| 36 | Low cost, high performance ultrafiltration membranes from glass fiber-PTFE-graphene composites. *Scientific Reports*, **2020**, 10, 21123 | 4.9 | 5 |
| 35 | Effect of Solvents and Dispersants on the Bundle Dissociation of Single-walled Carbon Nanotube. *AIP Conference Proceedings*, **2005**, | 0 | 4 |

| | | | |
|---|---|---|---|
| 34 | 2D nanosheets from fools gold by LPE: High performance lithium-ion battery anodes made from stone. *FlatChem*, **2021**, 30, 100295 | 5.1 | 4 |
| 33 | Liquid phase exfoliation of nonlayered non-van der Waals iron trifluoride (FeF3) into 2D-platelets for high-capacity lithium storing cathodes. *FlatChem*, **2022**, 33, 100360 | 5.1 | 4 |
| 32 | Synthesis of layered platelets by self-assembly of rhenium-based clusters directed by long-chain amines. *Npj 2D Materials and Applications*, **2017**, 1, | 8.8 | 3 |
| 31 | Quantification of ADF STEM images of molybdenum chalcogenide nanowires. *Journal of Physics: Conference Series*, **2006**, 26, 280-283 | 0.3 | 3 |
| 30 | Mechanical and thermal properties of carbon-nanotube-reinforced polymer composites **2003**, 4876, 676 | | 3 |
| 29 | Effect of solvent and dispersant on the bundle dissociation of single-walled carbon nanotube **2005**, | | 3 |
| 28 | Label-free screening of biochemical changes in macrophage-like cells following MoS exposure using Raman micro-spectroscopy. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 246, 118916 | 4.4 | 3 |
| 27 | Quantifying the Effect of Separator Thickness on Rate Performance in Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2022**, 169, 030503 | 3.9 | 3 |
| 26 | Effect of the Gate Volume on the Performance of Printed Nanosheet Network-Based Transistors. *ACS Applied Electronic Materials*, **2020**, 2, 2164-2170 | 4 | 2 |
| 25 | Monolayer-enriched production of Au-decorated WS2 Nanosheets via Defect Engineering. *MRS Advances*, **2018**, 3, 2435-2440 | 0.7 | 2 |
| 24 | Prussian blue-functionalised graphene in the amperometric detection of peroxide and hydrazine **2013**, 01, 58-62 | | 2 |
| 23 | Mo6S4.5I4.5Nanowires: Structure Studies by HRTEM and Aberration Corrected STEM. *Journal of Physics: Conference Series*, **2006**, 26, 260-263 | 0.3 | 2 |
| 22 | Characterization of nanotube-based artificial muscle materials **2003**, | | 2 |
| 21 | Quantifying the Piezoresistive Mechanism in High-Performance Printed Graphene Strain Sensors.. *ACS Applied Materials & Interfaces*, **2022**, 14, 7141-7151 | 9.5 | 2 |
| 20 | High Charge and Discharge Rate Limitations in Ordered Macroporous Li-ion Battery Materials. *Journal of the Electrochemical Society*, **2020**, 167, 140532 | 3.9 | 2 |
| 19 | Tuning the Photo-electrochemical Performance of Ru -Sensitized Two-Dimensional MoS. *Chemistry - A European Journal*, **2021**, 27, 984-992 | 4.8 | 2 |
| 18 | Highly Conductive Networks of Silver Nanosheets.. *Small*, **2022**, e2105996 | 11 | 2 |
| 17 | Spray deposition of Silver Nanowire transparent conductive networks **2012**, | | 1 |

| | | | |
|---|---|---|---|
| 16 | A new solution to graphene production. *SPIE Newsroom*, **2008**, | | 1 |
| 15 | Intermolecular vibronic coupling in self-assembling molecular nanowires of hexabenzocoronene derivatives **2003**, 4991, 460 | | 1 |
| 14 | Optical Absorption and Photo-Luminescence Spectra of Molecular van der Waals Systems: Frenkel Exciton Resonance Effects. *Macromolecular Symposia*, **2005**, 230, 116-125 | 0.8 | 1 |
| 13 | Characterisation of Single-walled Carbon Nanotube Bundle Dissociation in Amide Solvents. *AIP Conference Proceedings*, **2005**, | 0 | 1 |
| 12 | Nonlinear photoluminescence from multiwalled carbon nanotubes **2001**, 4461, 56 | | 1 |
| 11 | Enhanced brightness in organic light-emitting diodes using a carbon nanotube composite as an electron-transport layer **2002**, | | 1 |
| 10 | Transparent Conductors: Insulator-Conductor Type Transitions in Graphene-Modified Silver Nanowire Networks: A Route to Inexpensive Transparent Conductors (Adv. Funct. Mater. 48/2014). *Advanced Functional Materials*, **2014**, 24, 7562-7562 | 15.6 | |
| 9 | Three-dimensional Characterisation of Nanomaterials Using Aberration-Corrected STEM. *Microscopy and Microanalysis*, **2006**, 12, 1338-1339 | 0.5 | |
| 8 | Carbon Nanotube Composites as Efficient Charge Transport Media in Organic Optoelectronic Devices **2003**, 4876, 338 | | |
| 7 | Third-order nonlinear optical response and nonlinear photoluminescence in multiwalled carbon nanotubes **2003**, 4876, 649 | | |
| 6 | Optical limiting properties of carbon nanostructure and polymer dispersions **2003**, 4991, 194 | | |
| 5 | Purification and processing of carbon nanotubes using self-assembly and selective interaction with a semiconjugated polymer **2001**, 4468, 112 | | |
| 4 | Purity and Solubility of Nanotubes in Arc Discharge Carbon Powder. *Materials Research Society Symposia Proceedings*, **2000**, 633, 1361 | | |
| 3 | Solubility of carbon nanotubes. *Materials Research Society Symposia Proceedings*, **2000**, 633, 531 | | |
| 2 | MRS 2001 (Boston): Design and Quantification of a Nanoscale Field Effect Transistor: Distributed Response Analysis for Investigating Conductive Behaviour.. *Materials Research Society Symposia Proceedings*, **2001**, 706, 1 | | |
| 1 | EFFECT OF SOLVENT AND DISPERSANT ON THE BUNDLE DISSOCIATION OF SINGLE-WALLED CARBON NANOTUBES. *NATO Science Series Series II, Mathematics, Physics and Chemistry*, **2006**, 211-212 | | |