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|------|--|----|-----------|
| 2296 | Surface plasmon resonance for characterization of large-area atomic-layer graphene film. 2016 , 3, 151 | | |
| 2295 | A Review on Graphene Derivatives-Based Nanofluids: Investigation on Properties and Heat Transfer Characteristics. | | |
| 2294 | Anisotropy Enhancement of Thermal Energy Transport in Supported Black Phosphorene. | | |
| 2293 | In-Plane Thermal Conductivity of Polycrystalline Chemical Vapor Deposition Graphene with Controlled Grain Sizes. | | |
| 2292 | Polypyrrole/Graphene/Polyaniline Ternary Nanocomposite with High Thermoelectric Power Factor. | | |
| 2291 | Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS2 by Raman Thermometry. | | |
| 2290 | Use of Response Surface Methodology To Develop and Optimize the Composition of a ChitosanPolyethyleneimineGraphene Oxide Nanocomposite Membrane Coating To More Effectively Remove Cr(VI) and Cu(II) from Water. | | |
| 2289 | Optomechanical Measurement of Thermal Transport in Two-Dimensional MoSe2 Lattices. | | |
| 2288 | Simultaneous Nitrogen Doping and Pore Generation in Thermo-Insulating Graphene Films via Colloidal Templating. | | |
| 2287 | The hobbling of coal: policy and regulatory uncertainties. 1978 , 200, 153-8 | | 16 |
| 2286 | Pellet-plasma interaction: Local disturbances caused by pellet ablation in tokamaks. 1989 , 29, 37-48 | | 21 |
| 2285 | The Computational Complexity of Approximation Algorithms for Robust Stability in Rank-Two Matrix Polytopes. 1993 , | | 1 |
| 2284 | Optical Transitions in a Self-Assembled Ge Quantum Dot/Si Superlattice Measured by Photoreflectance Spectroscopy. 2005 , 44, L1045-L1047 | | |
| 2283 | Raman spectroscopy and imaging of graphene. 2008 , 1, 273-291 | | 989 |
| 2282 | Lattice anharmonicity in low-dimensional carbon systems. 2008, 245, 2149-2154 | | 24 |
| 2281 | Deoxygenation of Exfoliated Graphite Oxide under Alkaline Conditions: A Green Route to Graphene Preparation. 2008 , 20, 4490-4493 | | 1517 |
| 2280 | Predictions of effective physical properties of complex multiphase materials. 2008 , 63, 1-30 | | 446 |

| 2279 | Tuning the electronic structure of graphene by ion irradiation. 2008 , 78, | | 179 |
|------|--|------|------|
| 2278 | Self-organization of Novel Carbon Composite Structure: Graphene Multi-Layers Combined Perpendicularly with Aligned Carbon Nanotubes. 2008 , 1, 074003 | | 93 |
| 2277 | Graphene-based atomic-scale switches. <i>Nano Letters</i> , 2008 , 8, 3345-9 | 11.5 | 289 |
| 2276 | Vibrational modes and low-temperature thermal properties of graphene and carbon nanotubes: Minimal force-constant model. 2008 , 78, | | 107 |
| 2275 | Comparison of the effective conductivity between composites reinforced by graphene nanosheets and carbon nanotubes. 2008 , 92, 243121 | | 189 |
| 2274 | Macroscopic graphene membranes and their extraordinary stiffness. <i>Nano Letters</i> , 2008 , 8, 2442-6 | 11.5 | 528 |
| 2273 | Heat transport in low-dimensional systems. 2008 , 57, 457-537 | | 660 |
| 2272 | Extremely high thermal conductivity of graphene: Prospects for thermal management applications in nanoelectronic circuits. 2008 , 92, 151911 | | 1469 |
| 2271 | Extremely high thermal conductivity of graphene: Prospects for thermal management applications in silicon nanoelectronics. 2008 , | | 6 |
| 2270 | Dominance of Broken Bonds and Unpaired Nonbonding Ælectrons in the Band Gap Expansion and Edge States Generation in Graphene Nanoribbons. 2008 , 112, 18927-18934 | | 51 |
| 2269 | Nanoscale mechanical drumming visualized by 4D electron microscopy. <i>Nano Letters</i> , 2008 , 8, 3557-62 | 11.5 | 75 |
| 2268 | High-temperature quenching of electrical resistance in graphene interconnects. 2008 , 92, 202108 | | 173 |
| 2267 | Catalyst-Free Growth of Networked Nanographite on Si and SiO2 Substrates by Photoemission-Assisted Plasma-Enhanced Chemical Vapor Deposition. 2009 , 7, 882-890 | | 35 |
| 2266 | Thermal conductance of graphene and dimerite. 2009 , 79, | | 108 |
| 2265 | Nonequilibrium breakdown of quantum Hall state in graphene. 2009 , 80, | | 23 |
| 2264 | Revivals, classical periodicity, and zitterbewegung of electron currents in monolayer graphene. 2009 , 80, | | 53 |
| 2263 | Intrinsic anisotropy of thermal conductance in graphene nanoribbons. 2009 , 95, 233116 | | 158 |
| 2262 | Thermal rectification in asymmetric graphene ribbons. 2009 , 95, 033107 | | 273 |

| 2261 | Thermal properties of char obtained by pyrolysis: A molecular dynamics simulation study. 2009 , 95, 181908 | 10 |
|------------------------------|---|-------------------------------|
| 2260 | Meso-origami: Folding multilayer graphene sheets. 2009 , 95, 123121 | 161 |
| 2259 | Bistable electrical switching and electronic memory effect in a solution-processable graphene oxide-donor polymer complex. 2009 , 95, 253301 | 106 |
| 2258 | Interfacial thermal transport between nanotubes. 2009 , 106, 084302 | 18 |
| 2257 | Alternate State Variables for Emerging Nanoelectronic Devices. 2009, 8, 66-75 | 32 |
| 2256 | Thermal contact resistance between graphene and silicon dioxide. 2009 , 95, 161910 | 251 |
| 2255 | Synthesis of Few-Layer and Multi-Layer Graphene and Fabrication of Top-Gated Field Effect Transistors without Using Transferring Processes. 2009 , 1205, 32401 | 1 |
| 2254 | Heat Transfer in Encased Graphene. 2009, | 1 |
| 2253 | Thermal Conductivity of Graphene Layers Encased in Oxide. 2009, | |
| | | |
| 2252 | Recent progress in graphene-related nanotechnologies. 2009 , 3, 164-76 | 23 |
| 2252 | Recent progress in graphene-related nanotechnologies. 2009, 3, 164-76 FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009, 04, 351-358 | 23 |
| 2251 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND | |
| 2251 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009 , 04, 351-358 | 2 |
| 2251 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009, 04, 351-358 Modeling, Analysis, and Design of Graphene Nano-Ribbon Interconnects. 2009, 56, 1567-1578 Carbon Nanomaterials for Next-Generation Interconnects and Passives: Physics, Status, and Prospects. 2009, 56, 1799-1821 | 2 240 |
| 2251 2250 2249 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009, 04, 351-358 Modeling, Analysis, and Design of Graphene Nano-Ribbon Interconnects. 2009, 56, 1567-1578 Carbon Nanomaterials for Next-Generation Interconnects and Passives: Physics, Status, and Prospects. 2009, 56, 1799-1821 | 2 240 297 |
| 2251 2250 2249 2248 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009, 04, 351-358 Modeling, Analysis, and Design of Graphene Nano-Ribbon Interconnects. 2009, 56, 1567-1578 Carbon Nanomaterials for Next-Generation Interconnects and Passives: Physics, Status, and Prospects. 2009, 56, 1799-1821 Liquid-Phase Exfoliation of Nanotubes and Graphene. 2009, 19, 3680-3695 | 2 240 297 518 |
| 2251 2250 2249 2248 | FABRICATION AND MEASUREMENT OF SUSPENDED SILICON CARBIDE NANOWIRE DEVICES AND DEFLECTION. 2009, 04, 351-358 Modeling, Analysis, and Design of Graphene Nano-Ribbon Interconnects. 2009, 56, 1567-1578 Carbon Nanomaterials for Next-Generation Interconnects and Passives: Physics, Status, and Prospects. 2009, 56, 1799-1821 Liquid-Phase Exfoliation of Nanotubes and Graphene. 2009, 19, 3680-3695 Carbon Nanosheets for Polymeric Nanocomposites with High Thermal Conductivity. 2009, 21, 2088-2092 | 2 240 297 518 299 |

(2009-2009)

| 2243 | Facile, noncovalent decoration of graphene oxide sheets with nanocrystals. 2009 , 2, 192-200 | | 136 |
|------|---|------|-------|
| 2242 | Photoconductivity of bulk-film-based graphene sheets. 2009 , 5, 1682-7 | | 75 |
| 2241 | Selling graphene by the ton. 2009 , 4, 612-4 | | 331 |
| 2240 | Chemical methods for the production of graphenes. 2009 , 4, 217-24 | | 5501 |
| 2239 | Quantized long-wavelength optical phonon modes in graphene nanoribbon in the elastic continuum model. 2009 , 46, 881-888 | | 19 |
| 2238 | Raman nanometrology of graphene: Temperature and substrate effects. 2009 , 149, 1132-1135 | | 100 |
| 2227 | 4D ultrafast electron microscopy: imaging of atomic motions, acoustic resonances, and moir[fringe dynamics. 2009 , 110, 7-19 | | 55 |
| 2236 | The electronic properties of graphene and its bilayer. 2009 , 83, 1248-1252 | | 74 |
| 2235 | Spin current in the MBius cyclacene belts. 2009 , 471, 276-279 | | 9 |
| 2234 | InorganicBrganic hybrid porous materials based on graphite oxide sheets. 2009 , 47, 2993-3000 | | 123 |
| 2233 | Highly efficient and large-scale synthesis of graphene by electrolytic exfoliation. 2009 , 47, 3242-3246 | | 276 |
| 2232 | Heat conduction in graphene: experimental study and theoretical interpretation. 2009, 11, 095012 | | 187 |
| 2231 | Colloidal suspensions of highly reduced graphene oxide in a wide variety of organic solvents. <i>Nano Letters</i> , 2009 , 9, 1593-7 | 11.5 | 1382 |
| 2230 | The transport properties of graphene. 2009 , 21, 323201 | | 63 |
| 2229 | Fundamental metrology in the future: Measuring the single quantum. 2009, 172, 399-408 | | 3 |
| 2228 | Graphene: status and prospects. 2009 , 324, 1530-4 | | 10415 |
| 2227 | Phonon softening and crystallographic orientation of strained graphene studied by Raman spectroscopy. 2009 , 106, 7304-8 | | 498 |
| 2226 | Direct imaging of soft-hard interfaces enabled by graphene. <i>Nano Letters</i> , 2009 , 9, 3365-9 | 11.5 | 119 |

| 2225 | Low-frequency electronic noise in the double-gate single-layer graphene transistors. 2009 , 95, 033103 | 11 | 15 |
|------|--|-------|-----|
| 2224 | Thermal Expansion of Graphene Composites. 2009 , 42, 5251-5255 | 32 | 23 |
| 2223 | Covalent polymer functionalization of graphene nanosheets and mechanical properties of composites. 2009 , 19, 7098 | 11 | 107 |
| 2222 | Lattice thermal conductivity of single-walled carbon nanotubes: Beyond the relaxation time approximation and phonon-phonon scattering selection rules. 2009 , 80, | 13 | 33 |
| 2221 | Fabrication of Graphene/Polyaniline Composite Paper via In Situ Anodic Electropolymerization for High-Performance Flexible Electrode. 2009 , 3, 1745-52 | 13 | 355 |
| 2220 | Thermal conductivity and thermal rectification in graphene nanoribbons: a molecular dynamics study. <i>Nano Letters</i> , 2009 , 9, 2730-5 | .5 63 | 35 |
| 2219 | Hierarchical nanostructures are crucial to mitigate ultrasmall thermal point loads. <i>Nano Letters</i> , 2009 , 9, 2065-72 | .5 29 | 9 |
| 2218 | Thermal conductivity of graphene nanoribbons. 2009 , 95, 163103 | 3∠ | 40 |
| 2217 | Current Status of Graphene Transistors. 2009 , 156-158, 499-509 | 38 | 8 |
| 2216 | What is graphene?. 2009 , 39, 1-1 | 1 | |
| 2215 | Optical absorption and thermal transport of individual suspended carbon nanotube bundles. <i>Nano Letters</i> , 2009 , 9, 590-4 | .5 63 | 3 |
| 2214 | A simple route to enhance the interface between graphite oxide nanoplatelets and a semi-crystalline polymer for stress transfer. 2009 , 20, 315708 | 80 | O |
| 2213 | Flicker Noise in Bilayer Graphene Transistors. 2009 , 30, 288-290 | 97 | 7 |
| 2212 | Probing charged impurities in suspended graphene using Raman spectroscopy. 2009 , 3, 569-74 | 17 | 77 |
| 2211 | Thermal Modeling of Graphene Layer on the Peak Channel Temperature of AlGaN G aN High Electron Mobility Transistors. 2009 , 12, H29 | 11 | 1 |
| 2210 | Superparamagnetic graphene oxideHe3O4nanoparticles hybrid for controlled targeted drug carriers. 2009 , 19, 2710 | 88 | 89 |
| | | | |
| 2209 | Imaging of photocurrent generation and collection in single-layer graphene. <i>Nano Letters</i> , 2009 , 9, 1742-61. | .5 29 | 93 |

(2009-2009)

| Vertically aligned ZnO nanostructures grown on graphene layers. 2009 , 95, 213101 | 141 |
|---|-------|
| 2206 Ultraviolet Raman microscopy of single and multilayer graphene. 2009 , 106, 043509 | 195 |
| 2205 Strain controlled thermomutability of single-walled carbon nanotubes. 2009 , 20, 185701 | 115 |
| An electrical method for the measurement of the thermal and electrical conductivity of reduced graphene oxide nanostructures. 2009 , 20, 405704 | 113 |
| Density Functional Investigation of Thioepoxidated and Thiolated Graphene. 2009 , 113, 5612-5619 | 98 |
| 2202 Energy dissipation in graphene field-effect transistors. <i>Nano Letters</i> , 2009 , 9, 1883-8 | 5 304 |
| Aqueous Dispersion of Graphene Sheets Stabilized by Pluronic Copolymers: Formation of Supramolecular Hydrogel. 2009 , 113, 13651-13657 | 378 |
| Convenient preparation of tunably loaded chemically converted graphene oxide/epoxy resin nanocomposites from graphene oxide sheets through two-phase extraction. 2009 , 19, 8856 | 150 |
| 2199 Control of electric current by graphene edge structure engineering. 2009 , 95, 082109 | 20 |
| 2198 Theory of thermopower in two-dimensional graphene. 2009 , 80, | 137 |
| Thermal transport of isotopic-superlattice graphene nanoribbons with zigzag edge. 2009 , 88, 28002 | 70 |
| 2196 Reduced graphene oxide for room-temperature gas sensors. 2009 , 20, 445502 | 556 |
| Gas detection using low-temperature reduced graphene oxide sheets. 2009 , 94, 083111 | 325 |
| 2194 Thermoelectric and magnetothermoelectric transport measurements of graphene. 2009 , 102, 096807 | 552 |
| 2193 Wettability and surface free energy of graphene films. 2009 , 25, 11078-81 | 782 |
| The effect of sublattice symmetry breaking on the electronic properties of doped graphene. 2009 , 11, 095023 | 22 |
| Functionalized graphene sheet colloids for enhanced fuel/propellant combustion. 2009 , 3, 3945-54 | 185 |
| 2190 First-principles analysis of lattice thermal conductivity in monolayer and bilayer graphene. 2009 , 80, | 151 |

| 2189 | Lattice thermal conductivity of graphene flakes: Comparison with bulk graphite. 2009 , 94, 203103 | 404 |
|--------------------------------------|--|--------------------------------|
| 2188 | Dirac electrons in graphene-based quantum wires and quantum dots. 2009 , 21, 344202 | 32 |
| 2187 | Mesoscopic size effects on the thermal conductance of silicon nanowire. <i>Nano Letters</i> , 2009 , 9, 1861-5 11.5 | 88 |
| 2186 | Clean and highly ordered graphene synthesized in the gas phase. 2009 , 6095-7 | 72 |
| 2185 | Heat Removal in Silicon-on-Insulator Integrated Circuits With Graphene Lateral Heat Spreaders. 2009 , 30, 1281-1283 | 92 |
| 2184 | Thermal mitigation using thermal through silicon via (TTSV) in 3-D ICs. 2009, | 4 |
| 2183 | Graphene Oxide Sheets Chemically Cross-Linked by Polyallylamine. 2009, 113, 15801-15804 | 447 |
| 2182 | Chemically converted graphene induced molecular flattening of 5,10,15,20-tetrakis(1-methyl-4-pyridinio)porphyrin and its application for optical detection of cadmium(II) ions. 2009 , 131, 13490-7 | 455 |
| 2181 | Polymer functionalization and solubilization of carbon nanosheets. 2009 , 2565-7 | 173 |
| | | |
| 2180 | Uniaxial strain in graphene by Raman spectroscopy: G peak splitting, Grfleisen parameters, and sample orientation. 2009 , 79, | 1422 |
| 2180 2179 | | 1422 318 |
| 2179 | sample orientation. 2009 , 79, | |
| 2179 | Infrared-Triggered Actuators from Graphene-Based Nanocomposites. 2009 , 113, 9921-9927 | 318 |
| 2179 2178 2177 | Infrared-Triggered Actuators from Graphene-Based Nanocomposites. 2009, 113, 9921-9927 Ballistic thermal conductance of electrons in graphene ribbons. 2009, 80, Electrical and Spectroscopic Characterizations of Ultra-Large Reduced Graphene Oxide Monolayers. | 318 |
| 2179 2178 2177 | Infrared-Triggered Actuators from Graphene-Based Nanocomposites. 2009, 113, 9921-9927 Ballistic thermal conductance of electrons in graphene ribbons. 2009, 80, Electrical and Spectroscopic Characterizations of Ultra-Large Reduced Graphene Oxide Monolayers. 2009, 21, 5674-5680 | 318 16 425 |
| 2179 2178 2177 2176 | Infrared-Triggered Actuators from Graphene-Based Nanocomposites. 2009, 113, 9921-9927 Ballistic thermal conductance of electrons in graphene ribbons. 2009, 80, Electrical and Spectroscopic Characterizations of Ultra-Large Reduced Graphene Oxide Monolayers. 2009, 21, 5674-5680 Breakdown current density of graphene nanoribbons. 2009, 94, 243114 | 318 16 425 297 |
| 2179 2178 2177 2176 2175 | Infrared-Triggered Actuators from Graphene-Based Nanocomposites. 2009, 113, 9921-9927 Ballistic thermal conductance of electrons in graphene ribbons. 2009, 80, Electrical and Spectroscopic Characterizations of Ultra-Large Reduced Graphene Oxide Monolayers. 2009, 21, 5674-5680 Breakdown current density of graphene nanoribbons. 2009, 94, 243114 Modification of graphene properties due to electron-beam irradiation. 2009, 94, 013101 Phonon thermal conduction in graphene: Role of Umklapp and edge roughness scattering. 2009, | 318 16 425 297 359 |

(2010-2009)

| 2171 Growth of semiconducting graphene on palladium. <i>Nano Letters</i> , 2009 , 9, 3985-90 | 11.5 | 283 |
|---|--------------------------------|------|
| 2170 Gating of single layer graphene using DNA. 2009 , | | 1 |
| 2169 Simulation of Phonon Transmission Through Graphene With a Green Function Met | hod. 2009 , | |
| $_{2168}$ Anomalous behavior of dielectric permittivity of graphene-filled polymer composite | e. 2010 , 36, 1115-1117 | 9 |
| 2167 Effect of gap opening on the quasiparticle properties of doped graphene sheets. 20 |)10 , 74, 479-485 | 3 |
| 2166 Synthesis of phase transferable graphene sheets using ionic liquid polymers. 2010 , | 4, 1612-8 | 208 |
| 2165 Graphene: Materially Better Carbon. 2010 , 35, 289-295 | | 164 |
| Stable aqueous dispersions of noncovalently functionalized graphene from graphite multifunctional high-performance applications. <i>Nano Letters</i> , 2010 , 10, 4295-301 | e and their | 405 |
| Optimized Tersoff and Brenner empirical potential parameters for lattice dynamics thermal transport in carbon nanotubes and graphene. 2010 , 81, | and phonon | 751 |
| 2162 High-temperature stability of suspended single-layer graphene. 2010 , 4, 302-304 | | 80 |
| 2161 Graphene-based materials in electrochemistry. 2010 , 39, 3157-80 | | 1200 |
| 2160 The chemistry of graphene. 2010 , 20, 2277 | | 1222 |
| Thin Film Fabrication and Simultaneous Anodic Reduction of Deposited Graphene C by Electrophoretic Deposition. 2010 , 1, 1259-1263 |)xide Platelets | 388 |
| $_{2158}$ Thermal conductivity and phonon transport in empty and water-filled carbon nanot | ubes. 2010 , 81, | 115 |
| Exfoliation and characterization of bismuth telluride atomic quintuples and quasi-ty crystals. <i>Nano Letters</i> , 2010 , 10, 1209-18 | wo-dimensional 11.5 | 371 |
| 2156 Enhanced Mechanical Properties of Graphene-Based Poly(vinyl alcohol) Composites | s. 2010 , 43, 2357-2363 | 1173 |
| 2155 Graphene/Polymer Nanocomposites. 2010 , 43, 6515-6530 | | 2683 |
| 2154 Graphene-based antibacterial paper. 2010 , 4, 4317-23 | | 1540 |

| 2153 | Exfoliation and chemical modification using microwave irradiation affording highly functionalized graphene. 2010 , 4, 7499-507 | 131 |
|------|---|------|
| 2152 | Electronic states of graphene nanoribbons and analytical solutions. 2010 , 11, 054504 | 255 |
| 2151 | Graphene-based SELDI probe with ultrahigh extraction and sensitivity for DNA oligomer. 2010 , 132, 10976-7 | 252 |
| 2150 | Simple photoreduction of graphene oxide nanosheet under mild conditions. 2010 , 2, 3461-6 | 190 |
| 2149 | Quantifying the Stacking Registry Matching in Layered Materials. 2010 , 50, 506-514 | 24 |
| 2148 | Preparation and properties of graphene nanosheetspolystyrene nanocomposites via in situ emulsion polymerization. 2010 , 484, 247-253 | 349 |
| 2147 | In situ imaging of layer-by-layer sublimation of suspended graphene. 2010 , 3, 43-50 | 37 |
| 2146 | Lithography-free fabrication of high quality substrate-supported and freestanding graphene devices. 2010 , 3, 98-102 | 74 |
| 2145 | Water-borne graphene-derived conductive SBR prepared by latex heterocoagulation. 2010, 18, 558-565 | 44 |
| 2144 | Modeling of Thermal Conductivity of Graphite Nanosheet Composites. 2010 , 39, 268-272 | 63 |
| 2143 | Electrical Conductivity of Graphene Composites with In and In-Ga Alloy. 2010 , 39, 1268-1276 | 22 |
| 2142 | Probing mechanical properties of graphene with Raman spectroscopy. 2010 , 45, 5135-5149 | 167 |
| 2141 | Remarkable diversity of carbonBarbon bonds: structures and properties of fullerenes, carbon nanotubes, and graphene. 2010 , 21, 1155-1169 | 108 |
| 2140 | Low-Swing Signaling on Monolithically Integrated Global Graphene Interconnects. 2010 , 57, 3418-3425 | 17 |
| 2139 | Composites of molecular-anchored graphene and nanotubes with multitubular structure: a new type of carbon electrode. 2010 , 3, 261-5 | 18 |
| 2138 | Thinnest two-dimensional nanomaterial-graphene for solar energy. 2010 , 3, 782-96 | 185 |
| 2137 | Graphene Based Electrochemical Sensors and Biosensors: A Review. 2010 , 22, 1027-1036 | 2430 |
| 2136 | Graphene Nanosheets Modified Glassy Carbon Electrode as a Highly Sensitive and Selective Voltammetric Sensor for Rutin. 2010 , 22, 2399-2406 | 40 |

(2010-2010)

| 2135 | FeCl3-Based Few-Layer Graphene Intercalation Compounds: Single Linear Dispersion Electronic Band Structure and Strong Charge Transfer Doping. 2010 , 20, 3504-3509 | 138 |
|------|--|------|
| 2134 | A Graphene OxideBtreptavidin Complex for Biorecognition Fowards Affinity Purification. 2010 , 20, 2857-2865 | 61 |
| 2133 | A magneto-catalytic writing technique for etching complex channel patterns into graphenic carbons. 2010 , 22, 337-41 | 12 |
| 2132 | Aqueous-processable noncovalent chemically converted graphene-quantum dot composites for flexible and transparent optoelectronic films. 2010 , 22, 638-42 | 277 |
| 2131 | Peptide/graphene hybrid assembly into core/shell nanowires. 2010 , 22, 2060-4 | 230 |
| 2130 | Chemically derived graphene oxide: towards large-area thin-film electronics and optoelectronics. 2010 , 22, 2392-415 | 1818 |
| 2129 | Graphene and graphene oxide: synthesis, properties, and applications. 2010 , 22, 3906-24 | 7620 |
| 2128 | Interfacial Engineering by Proteins: Exfoliation and Functionalization of Graphene by Hydrophobins. 2010 , 122, 5066-5069 | 23 |
| 2127 | Fabrication of Graphene-Encapsulated Oxide Nanoparticles: Towards High-Performance Anode Materials for Lithium Storage. 2010 , 122, 8586-8589 | 95 |
| 2126 | Interfacial engineering by proteins: exfoliation and functionalization of graphene by hydrophobins. 2010 , 49, 4946-9 | 146 |
| 2125 | Fabrication of graphene-encapsulated oxide nanoparticles: towards high-performance anode materials for lithium storage. 2010 , 49, 8408-11 | 948 |
| 2124 | Recent advances in graphene based polymer composites. 2010 , 35, 1350-1375 | 2609 |
| 2123 | Graphene oxide/ferric hydroxide composites for efficient arsenate removal from drinking water. 2010 , 182, 162-8 | 261 |
| 2122 | The adsorption properties of Pb(II) and Cd(II) on functionalized graphene prepared by electrolysis method. 2010 , 183, 923-30 | 311 |
| 2121 | Strong nonlocalization induced by small scale parameter on terahertz flexural wave dispersion characteristics of a monolayer graphene. 2010 , 43, 423-430 | 23 |
| 2120 | Simulation of deformation and fracture of graphene: effect of size, defects and surface modification. 2010 , 13, 329-336 | 8 |
| 2119 | Electrically conductive polyethylene terephthalate/graphene nanocomposites prepared by melt compounding. 2010 , 51, 1191-1196 | 609 |
| 2118 | Polypropylene-graphite nanocomposites made by solid-state shear pulverization: Effects of significantly exfoliated, unmodified graphite content on physical, mechanical and electrical properties. 2010 , 51, 5525-5531 | 83 |

| 2117 | In-situ synthesis and characterization of electrically conductive polypyrrole/graphene nanocomposites. 2010 , 51, 5921-5928 | 417 |
|------|---|------|
| 2116 | Highly sensitive and selective detection of NO2 using epitaxial graphene on 6H-SiC. 2010 , 150, 301-307 | 122 |
| 2115 | Effect of a gap opening on the conductance of graphene superlattices. 2010 , 150, 655-659 | 16 |
| 2114 | The influence of structure on the thermal conductivities of low-dimensional carbon materials. 2010 , 150, 1321-1324 | 7 |
| 2113 | Electronic properties of disordered bilayer graphene. 2010 , 150, 2366-2369 | 9 |
| 2112 | Density functional theory prediction for oxidation and exfoliation of graphite to graphene. 2010 , 256, 7596-7599 | 14 |
| 2111 | Transformation of graphene into graphane in the absence of hydrogen. 2010 , 48, 981-986 | 25 |
| 2110 | Fabrication of highly conducting and transparent graphene films. 2010 , 48, 1815-1823 | 253 |
| 2109 | Fast and simple fabrication of a large transparent chemically-converted graphene film by spray-coating. 2010 , 48, 1945-1951 | 271 |
| 2108 | Formation of highly stable dispersions of silane-functionalized reduced graphene oxide. 2010 , 501, 68-74 | 191 |
| 2107 | Mn3O4 nanoparticles embedded into graphene nanosheets: Preparation, characterization, and electrochemical properties for supercapacitors. 2010 , 55, 6812-6817 | 215 |
| 2106 | Stimuli-responsive polymer hydrogels containing partially exfoliated graphite. 2010 , 48, 5375-5381 | 48 |
| 2105 | Optical and thermal properties of graphene field-effect transistors. 2010 , 247, 2895-2903 | 7 |
| 2104 | Intracellular imaging with a graphene-based fluorescent probe. 2010 , 6, 1686-92 | 243 |
| 2103 | Theoretical efficiency of nanostructured graphene-based photovoltaics. 2010 , 6, 313-8 | 89 |
| 2102 | Graphene oxide, highly reduced graphene oxide, and graphene: versatile building blocks for carbon-based materials. 2010 , 6, 711-23 | 2103 |
| 2101 | High-concentration solvent exfoliation of graphene. 2010 , 6, 864-71 | 810 |
| 2100 | Gating of single-layer graphene with single-stranded deoxyribonucleic acids. 2010 , 6, 1150-5 | 48 |

(2010-2010)

| 2099 Dimensional crossover of thermal transport in few-layer graphene. 2010 , 9, 555-8 | 1028 |
|---|-----------------|
| 2098 Spontaneous high-concentration dispersions and liquid crystals of graphene. 2010 , 5, 406-11 | 488 |
| 2097 Graphene transistors. 2010 , 5, 487-96 | 4190 |
| 2096 Thermal infrared emission from biased graphene. 2010 , 5, 497-501 | 205 |
| 2095 Isotope Effect on the Thermal Conductivity of Graphene. 2010 , 2010, 1-5 | 34 |
| 2094 Thermal Conductivity Measurement of Graphene Exfoliated on Silicon Dioxide. 2010 , | 1 |
| Thermal Conductivity of a Monolayer of Exfoliated Graphite Nanoplatelets Prepared by Liquid-Liquid Interfacial Self-Assembly. 2010 , 2010, 1-6 | 7 |
| 2092 Preparation of Bulk13C-Enriched Graphene Materials. 2010 , 2010, 1-5 | 15 |
| 2091 Evaluation of Thermal Insulation Properties of Fibrous Mineral Fine Powders. 2010 , 178, 339-343 | |
| Large-Scale Automated Identification and Quality Control of Exfoliated and CVD Graphene via Image Processing Technique. 2010 , 33, 201-209 | 3 |
| 2089 Tuning electronic structure of graphene via tailoring structure: Theoretical study. 2010 , 107, 114322 | 17 |
| | |
| 2088 Hot carrier diffusion in graphene. 2010 , 82, | 63 |
| 2088 Hot carrier diffusion in graphene. 2010 , 82, 2087 Aperiodic conductivity oscillations in quasiballistic graphene heterojunctions. 2010 , 97, 122106 | 63 7 |
| | Ť |
| Aperiodic conductivity oscillations in quasiballistic graphene heterojunctions. 2010 , 97, 122106 Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope | 7 |
| Aperiodic conductivity oscillations in quasiballistic graphene heterojunctions. 2010 , 97, 122106 Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope engineering: A molecular dynamics study. 2010 , 97, 133107 | 7 |
| Aperiodic conductivity oscillations in quasiballistic graphene heterojunctions. 2010 , 97, 122106 Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope engineering: A molecular dynamics study. 2010 , 97, 133107 2085 Flexural phonons and thermal transport in graphene. 2010 , 82, | 7 134 532 |

| 2081 | Measurement of the thermal conductance of the graphene/SiO2 interface. 2010 , 97, 221904 | 148 |
|------|--|-----|
| 2080 | Stripe/kink microstructures formed in mechanical peeling of highly orientated pyrolytic graphite. 2010 , 96, 201909 | 12 |
| 2079 | Nanostructured Pt Dispersed on Graphene-Multiwalled Carbon Nanotube Hybrid Nanomaterials as Electrocatalyst for PEMFC. 2010 , 157, B874 | 96 |
| 2078 | Detection of CO2 absorption in graphene using surface acoustic waves. 2010 , | 2 |
| 2077 | Modified phonon confinement model for Raman spectroscopy of nanostructured materials. 2010 , 82, | 43 |
| 2076 | Probing charging and localization in the quantum Hall regime by graphene p ${\tt B}{\tt B}$ junctions. 2010 , 81, | 29 |
| 2075 | Ballistic thermal rectification in asymmetric three-terminal graphene nanojunctions. 2010 , 82, | 52 |
| 2074 | Caraphene-on-insulator Fabricated on atomically controlled solid surfaces. 2010, 43, 374014 | 5 |
| 2073 | Thermal Transport in Graphene Nanostructures: Experiments and Simulations. 2010 , 28, 73-83 | 93 |
| 2072 | Electrical Characterization of 5 MeV Proton-Irradiated Few Layer Graphene. 2010 , 13, K32 | 11 |
| 2071 | Flux-mediated diffuse mismatch model. 2010 , 97, 121917 | 14 |
| 2070 | Thermal conductivity measurement of individual CdS nanowires using microphotoluminescence spectroscopy. 2010 , 108, 054310 | 19 |
| 2069 | 1D-to-3D transition of phonon heat conduction in polyethylene using molecular dynamics simulations. 2010 , 82, | 88 |
| 2068 | Thermal management with graphene lateral heat spreaders: A feasibility study. 2010 , | 3 |
| 2067 | Electrical and noise characteristics of graphene field-effect transistors: ambient effects, noise sources and physical mechanisms. 2010 , 22, 395302 | 83 |
| 2066 | Thermal transport in hexagonal boron nitride nanoribbons. 2010 , 21, 245701 | 140 |
| 2065 | Topological effect on thermal conductivity in graphene. 2010 , 108, 064307 | 17 |
| 2064 | Alternate Multilayer Films of Poly(vinyl alcohol) and Exfoliated Graphene Oxide Fabricated via a Facial Layer-by-Layer Assembly. 2010 , 43, 9411-9416 | 184 |

(2010-2010)

| 2063 | Extraordinary thermal conductivity of graphene: Possibility of thermal management applications. 2010 , | 1 |
|------|--|------|
| 2062 | Thermal conductance and phonon transmissivity of metal graphite interfaces. 2010 , 107, 104907 | 154 |
| 2061 | Thermal transport in graphene junctions and quantum dots. 2010 , 81, | 86 |
| 2060 | Phonon and electron transport in graphene nanoribbons. 2010 , | О |
| 2059 | Facile covalent immobilization of cadmium sulfide quantum dots on graphene oxide nanosheets: preparation, characterization, and optical properties. 2010 , 21, 465603 | 76 |
| 2058 | pH-Responsive chitosan-mediated graphene dispersions. 2010 , 26, 16771-4 | 168 |
| 2057 | Growth of large-area graphene films from metal-carbon melts. 2010 , 108, 094321 | 109 |
| 2056 | Self-assembled graphene hydrogel via a one-step hydrothermal process. 2010 , 4, 4324-30 | 2678 |
| 2055 | Nanoelectronics in retrospect, prospect and principle. 2010 , | 2 |
| 2054 | Applications of Carbon Nanomaterials as Electrical Interconnects and Thermal Interface Materials. 2010 , 87-138 | 5 |
| 2053 | Effects of mismatch strain and substrate surface corrugation on morphology of supported monolayer graphene. 2010 , 107, 123531 | 114 |
| 2052 | Experimental investigation on thermal conductivity of nanofluids containing graphene oxide nanosheets. 2010 , 107, 094317 | 119 |
| 2051 | Large energy pulse generation modulated by graphene epitaxially grown on silicon carbide. 2010 , 4, 7582-6 | 84 |
| 2050 | Transient photoconductivity and femtosecond nonlinear optical properties of a conjugated polymer-graphene oxide composite. 2010 , 21, 415203 | 36 |
| 2049 | Molecular Dynamics Simulations of Heat Conduction in Nanostructures: Effect of Heat Bath. 2010 , 79, 074604 | 71 |
| 2048 | A universal exponential factor in the dimensional crossover from graphene to graphite. 2010 , 108, 124311 | 1 |
| 2047 | Noncovalent DNA decorations of graphene oxide and reduced graphene oxide toward water-soluble metal@arbon hybrid nanostructures via self-assembly. 2010 , 20, 900-906 | 156 |
| 2046 | Diameter dependence of carbon nanotube thermal conductivity and extension to the graphene limit. 2010 , 82, | 138 |

| 2045 | Modeling of Thermal Conductance at Transverse CNTCINT Interfaces. 2010, 114, 16223-16228 | | 70 |
|------|---|----|-----|
| 2044 | Covalent modification and exfoliation of graphene oxide using ferrocene. 2010 , 2, 1762-6 | | 77 |
| 2043 | Reduced graphene oxide films used as matrix of MALDI-TOF-MS for detection of octachlorodibenzo-p-dioxin. 2010 , 46, 6974-6 | | 118 |
| 2042 | A roadmap to high quality chemically prepared graphene. 2010 , 43, 374015 | | 48 |
| 2041 | Investigation of thermal and electrical conductivity of graphene based nanofluids. 2010 , 108, 124308 | | 187 |
| 2040 | Thickness-dependent thermal conductivity of encased graphene and ultrathin graphite. <i>Nano Letters</i> , 2010 , 10, 3909-13 | .5 | 251 |
| 2039 | Chemical functionalization of graphene enabled by phage displayed peptides. <i>Nano Letters</i> , 2010 , 10, 4559-65 | .5 | 171 |
| 2038 | Mechanical properties of graphene cantilever from atomic force microscopy and density functional theory. 2010 , 21, 185503 | | 59 |
| 2037 | Study on Thermoelectric Properties of Graphene. 2010 , 49, 100207 | | 10 |
| 2036 | Flexible, Magnetic, and Electrically Conductive Graphene/Fe3O4 Paper and Its Application for Magnetic-Controlled Switches. 2010 , 114, 17465-17471 | | 162 |
| 2035 | Recent advance in functionalized graphene/polymer nanocomposites. 2010, 20, 7906 | | 415 |
| 2034 | ssDNA binding reveals the atomic structure of graphene. 2010 , 26, 18078-82 | | 75 |
| 2033 | Preparation of covalently functionalized graphene using residual oxygen-containing functional groups. 2010 , 2, 3092-9 | | 324 |
| 2032 | Heat conduction across monolayer and few-layer graphenes. <i>Nano Letters</i> , 2010 , 10, 4363-8 | .5 | 312 |
| 2031 | Suppression of thermal conductivity in graphene nanoribbons with rough edges. 2010 , 82, | | 139 |
| 2030 | Hexagonal Array of Gold Nanotriangles: Modeling the Electric Field Distribution. 2010 , 114, 19952-19957 | | 13 |
| 2029 | Low-Temperature Synthesis of Graphene and Fabrication of Top-Gated Field Effect Transistors without Using Transfer Processes. 2010 , 3, 025102 | | 86 |
| 2028 | Graphene Oxide-Assisted Dispersion of Pristine Multiwalled Carbon Nanotubes in Aqueous Media. 2010 , 114, 11435-11440 | | 272 |

| 2027 | Single nanowire thermal conductivity measurements by Raman thermography. 2010, 4, 4908-14 | 94 |
|------|---|------|
| 2026 | Scanning tunneling microscopy, spectroscopy, and nanolithography of epitaxial graphene chemically modified with aryl moieties. 2010 , 132, 15399-403 | 132 |
| 2025 | Highly sensitive and selective NO2 sensing using epitaxial graphene on 6H-SiC. 2010, | 2 |
| 2024 | Hot phonons in an electrically biased graphene constriction. <i>Nano Letters</i> , 2010 , 10, 466-71 | 88 |
| 2023 | Toward all-carbon electronics: fabrication of graphene-based flexible electronic circuits and memory cards using maskless laser direct writing. 2010 , 2, 3310-7 | 47 |
| 2022 | Reliability study of bilayer graphene - material for future transistor and interconnect. 2010 , | 1 |
| 2021 | Cluster scattering effects on phonon conduction in graphene. 2010 , 81, | 80 |
| 2020 | Impacts of doping on thermal and thermoelectric properties of nanomaterials. 2010 , 2, 1058-68 | 118 |
| 2019 | Phonon transport in large scale carbon-based disordered materials: Implementation of an efficient order-N and real-space Kubo methodology. 2010 , 82, | 39 |
| 2018 | Hot electron transport in suspended multilayer graphene. 2010 , 82, | 14 |
| 2017 | Supercapacitors based on flexible graphene/polyaniline nanofiber composite films. 2010 , 4, 1963-70 | 1934 |
| 2016 | Preparation and properties of a graphene reinforced nanocomposite conducting plate. 2010 , 20, 8496 | 105 |
| 2015 | Detailed kinetic Monte Carlo simulations of graphene-edge growth. 2010 , 114, 689-703 | 106 |
| 2014 | Graphene-based supercapacitor with an ultrahigh energy density. <i>Nano Letters</i> , 2010 , 10, 4863-8 | 2543 |
| 2013 | Transparent conductive graphene electrode in GaN-based ultra-violet light emitting diodes. 2010 , 18, 23030-4 | 36 |
| 2012 | Evolution of the Raman spectra from single-, few-, and many-layer graphene with increasing disorder. 2010 , 82, | 503 |
| 2011 | Graphene-based long-wave infrared TM surface plasmon modulator. 2010 , 27, 818 | 60 |
| 2010 | Covalent functionalization of graphene oxide with polyglycerol and their use as templates for anchoring magnetic nanoparticles. 2010 , 160, 2028-2036 | 101 |

| A novel nonenzymatic hydrogen peroxide sensor based on MnO2/graphene oxide nanocomposite. 2009 2010 , 82, 1637-41 | 299 |
|--|--------|
| 2008 Edge-carboxylated graphene nanoflakes from nitric acid oxidised arc-discharge material. 2010 , 20, 314-319 | 9 38 |
| 2007 Graphene Platelets and their Manganese Composites for Lithium- Ion Batteries. 2010 , 33, 23-32 | 7 |
| 2006 Photo-thermoelectric effect at a graphene interface junction. <i>Nano Letters</i> , 2010 , 10, 562-6 | .5 451 |
| Electromagnetic properties of carbon-based nanocomposites: The effect of filler and resin characteristics. 2010 , | 6 |
| 2004 Solvent-Assisted Thermal Reduction of Graphite Oxide. 2010 , 114, 14819-14825 | 241 |
| 2003 Two-dimensional phonon transport in supported graphene. 2010 , 328, 213-6 | 1461 |
| A new approach to fabricate graphene nanosheets in organic medium: combination of reduction and dispersion. 2010 , 20, 1722 | 205 |
| 2001 Stability Analysis in Graphene Nanoribbon Interconnects. 2010 , 31, 1458-1460 | 65 |
| 2000 Self-healable graphene polymer composites. 2010 , 20, 3508 | 143 |
| Two-dimensional carbon nanostructures: Fundamental properties, synthesis, characterization, and potential applications. 2010 , 108, 071301 | 216 |
| Pillaring chemically exfoliated graphene oxide with carbon nanotubes for photocatalytic degradation of dyes under visible light irradiation. 2010 , 4, 7030-6 | 229 |
| Scalable growth of free-standing graphene wafers with copper(Cu) catalyst on SiO2/Si substrate: Thermal conductivity of the wafers. 2010 , 96, 083101 | 50 |
| Atomic-scale observation of rotational misorientation in suspended few-layer graphene sheets. 2010 , 2, 700-8 | 38 |
| 1995 Raman Spectroscopic Characterization of Graphene. 2010 , 45, 369-407 | 170 |
| 1994 Enhancement of phonon-drag thermopower in bilayer graphene. 2010 , 82, | 25 |
| 1993 Thermal conductivity of graphene in corbino membrane geometry. 2010 , 4, 1889-92 | 296 |
| 1992 . 2010 , 31, 237-239 | 116 |

| 1991 Temperature Dependent Raman Spectra of Carbon Nanobuds. 2010 , 114, 13540-13545 | | 20 |
|---|------|-----|
| 1990 Atomically-thin crystalline films and ribbons of bismuth telluride. 2010 , 96, 053107 | | 117 |
| Photothermal Deoxygenation of Graphite Oxide with Laser Excitation in Solution and Graphene-Aided Increase in Water Temperature. 2010 , 1, 2804-2809 | | 243 |
| $_{f 19}88$ In situ Polymerization Approach to Graphene-Reinforced Nylon-6 Composites. 2010 , 43, 6716-6723 | | 569 |
| Graphene/TiO2 nanocomposites: synthesis, characterization and application in hydrogen evolution from water photocatalytic splitting. 2010 , 20, 2801 | | 936 |
| 1986 Controllable N-doping of graphene. <i>Nano Letters</i> , 2010 , 10, 4975-80 | 11.5 | 726 |
| Environment-Friendly Method To Produce Graphene That Employs Vitamin C and Amino Acid. 2010 , 22, 2213-2218 | | 621 |
| 1984 Mechanical properties of monolayer graphene oxide. 2010 , 4, 6557-64 | | 831 |
| Simulation of phonon transmission through graphene and graphene nanoribbons with a Green function method. 2010 , 108, 094319 | | 51 |
| Contact Resistance for End-Contacted Metal Graphene and Metal Manotube Interfaces from Quantum Mechanics. 2010 , 114, 17845-17850 | | 155 |
| 1981 Thermal Conduction in Suspended Graphene Layers. 2010 , 18, 474-486 | | 50 |
| 1980 Materials science. Graphene spreads the heat. 2010 , 328, 185-6 | | 176 |
| 1979 Nano-Bio- Electronic, Photonic and MEMS Packaging. 2010 , | | 29 |
| $_{1978}$ Preparation of graphene relying on porphyrin exfoliation of graphite. 2010 , 46, 5091-3 | | 140 |
| Probing strain-induced electronic structure change in graphene by Raman spectroscopy. <i>Nano Letters</i> , 2010 , 10, 4074-9 | 11.5 | 313 |
| 1976 Dual graphene films growth process based on plasma-assisted chemical vapor deposition. 2010 , | | 12 |
| 1975 Formation of atomic carbon chains from graphene nanoribbons. 2010 , 81, | | 50 |
| Extraordinary Thermal Conductivity of Graphene: Prospects of Thermal Management Applications. 2010 , | | 1 |

| 1973 | Thermal transport in suspended and supported monolayer graphene grown by chemical vapor deposition. <i>Nano Letters</i> , 2010 , 10, 1645-51 | 940 |
|------|--|------|
| 1972 | Highly efficient restoration of graphitic structure in graphene oxide using alcohol vapors. 2010 , 4, 5285-92 | 227 |
| 1971 | Click chemistry as a route for the immobilization of well-defined polystyrene onto graphene sheets. 2010 , 20, 5605 | 131 |
| 1970 | Advanced Materials and Technologies for Micro/Nano-Devices, Sensors and Actuators. 2010, | 5 |
| 1969 | Graphene/Polyaniline Nanocomposite for Hydrogen Sensing. 2010 , 114, 16168-16173 | 387 |
| 1968 | Ballistic thermal conductance of graphene ribbons. <i>Nano Letters</i> , 2010 , 10, 1652-6 | 169 |
| 1967 | Thermal conductivity of graphene ribbons from equilibrium molecular dynamics: Effect of ribbon width, edge roughness, and hydrogen termination. 2010 , 96, 203112 | 270 |
| 1966 | Enhanced thermal conductivities of nanofluids containing graphene oxide nanosheets. 2010 , 21, 055705 | 158 |
| 1965 | Resonant splitting of phonon transport in periodic T-shaped graphene nanoribbons. 2010 , 91, 46006 | 9 |
| 1964 | Isotopic effects on the thermal conductivity of graphene nanoribbons: Localization mechanism. 2010 , 107, 054314 | 112 |
| 1963 | Geometry controls conformation of graphene sheets: membranes, ribbons, and scrolls. 2010 , 4, 3869-76 | 203 |
| 1962 | Triple-mode single-transistor graphene amplifier and its applications. 2010 , 4, 5532-8 | 148 |
| 1961 | Modeling of thermal transport in pillared-graphene architectures. 2010 , 4, 1153-61 | 242 |
| 1960 | Tuning the Fermi Level of SiO2-Supported Single-Layer Graphene by Thermal Annealing. 2010 , 114, 6894-690 | 0062 |
| 1959 | Thermal conductivity of multi-walled carbon nanotube sheets: radiation losses and quenching of phonon modes. 2010 , 21, 035709 | 175 |
| 1958 | Thermoelectric power in graphene. 2010 , 22, 315502 | 22 |
| 1957 | Stretchable graphene: a close look at fundamental parameters through biaxial straining. <i>Nano Letters</i> , 2010 , 10, 3453-8 | 275 |
| 1956 | Electrically switchable optical response in graphene. 2010, | |

| 1955 Dominance of broken bonds and nonbonding electrons at the na | anoscale. 2010 , 2, 1930-61 115 |
|--|---|
| 1954 . 2010 , | 6 |
| 1953 Heat conduction in two-dimensional disk models. 2010 , 82, 0301 | 101 21 |
| 1952 Graphite nanoplatelet/silicone composites for thermal interface | e applications. 2010 , 8 |
| Enhanced thermoelectric figure of merit in edge-disordered zigz 81, | zag graphene nanoribbons. 2010 , |
| 1950 Bilayer Graphene System: Current-Induced Reliability Limit. 2010 | 0 , 31, 1155-1157 28 |
| Studies of Physical and Chemical Properties of Two-Dimensional First-Principles Calculation. 2010 , 79, 064602 | l Hexagonal Crystals by 40 |
| 1948 Wave packet revivals in a graphene quantum dot in a perpendicu | ular magnetic field. 2010 , 82, 11 |
| 1947 The effect of gas environment on electrical heating in suspende | ed carbon nanotubes. 2010 , 108, 084307 33 |
| 1946 Power Factor Enhancement for Few-Layered Graphene Films by | Molecular Attachments. 2011 , 115, 1780-1785 ₃₂ |
| Simple and scalable route for the Bottom-upßynthesis of few-lage films. 2011 , 21, 3378 | yer graphene platelets and thin 48 |
| 1944 Flexible field emission devices using transparent ZnO nanowires | s on reduced graphene films. 2011 , |
| 1943 Nanostructuration of Graphene Nanoribbons for thermoelectric | c applications. 2011 , 1 |
| A magnetite/oxidized carbon nanotube composite used as an ad 1942 MALDI-TOF-MS for the determination of benzo[a]pyrene. 2011 , | |
| 1941 Size-dependent interaction of Au nanoparticles and graphene sh | heet. 2011 , 47, 3610-2 |
| Enhanced Current Drivability of CVD Graphene Interconnect in C 2011 , 32, 1591-1593 | Oxygen-Deficient Environment. |
| 1939 Gyrotropy and non-reciprocity of graphene for microwave applic | cations. 2011 , |
| Highly conductive and flexible mesoporous graphitic films prepared of graphene oxide and nanodiamond. 2011 , 21, 7154 | ared by graphitizing the composites 7^8 |

| 1937 | Transfer printing of graphene strip from the graphene grown on copper wires. 2011 , 22, 185309 | 26 |
|------|---|-----|
| 1936 | Breakdown Current Density of CVD-Grown Multilayer Graphene Interconnects. 2011 , 32, 557-559 | 56 |
| 1935 | Hydrogen-passivated graphene antidot structures for thermoelectric applications. 2011, | |
| 1934 | Directed motion of C60 on a graphene sheet subjected to a temperature gradient. 2011 , 83, 042601 | 31 |
| 1933 | Time-resolved charge detection in graphene quantum dots. 2011 , 83, | 42 |
| 1932 | Thermal rectification in thickness-asymmetric graphene nanoribbons. 2011 , 99, 193104 | 56 |
| 1931 | High quality factor graphene varactors for wireless sensing applications. 2011 , 99, 163105 | 22 |
| 1930 | Bilayer Graphene/Copper Hybrid On-Chip Interconnect: A Reliability Study. 2011 , 10, 710-714 | 21 |
| 1929 | Heat conduction across multiwalled carbon nanotube/graphene hybrid films. 2011, | |
| 1928 | On the accuracy of classical and long wavelength approximations for phonon transport in graphene. 2011 , 110, 113510 | 29 |
| 1927 | Lattice thermal conductivity of graphene nanoribbons: Anisotropy and edge roughness scattering. 2011 , 98, 141919 | 152 |
| 1926 | Fluctuation Effects of the Electric Field Induced by Water on a Graphene Dot Band Gap. 2011 , 115, 4381-4386 | 7 |
| 1925 | Control of Graphene Etching by Atomic Structures of the Supporting Substrate Surfaces. 2011 , 115, 8580-858 | 528 |
| 1924 | Chemical vapor deposition-grown graphene: the thinnest solid lubricant. 2011 , 5, 5107-14 | 388 |
| 1923 | A Facile Route for the Large Scale Fabrication of Graphene Oxide Papers and Their Mechanical Enhancement by Cross-linking with Glutaraldehyde. 2011 , 3, 215-222 | 51 |
| 1922 | Preparation and Tribological Study of Functionalized Graphenell Nanocomposite Ultrathin Lubrication Films on Si Substrates. 2011 , 115, 13275-13284 | 72 |
| 1921 | The preparation and electrical properties of the functionalized graphene/poly (ether sulfone) nanocomposites. 2011 , 23, 592-601 | 11 |
| 1920 | Strain engineering of thermal conductivity in graphene sheets and nanoribbons: a demonstration of magic flexibility. 2011 , 22, 105705 | 291 |

| 1919 | Quantitative measurement with scanning thermal microscope by preventing the distortion due to the heat transfer through the air. 2011 , 5, 8700-9 | 104 |
|------|--|-----|
| 1918 | High-performance transparent conductive films using rheologically derived reduced graphene oxide. 2011 , 5, 870-8 | 78 |
| 1917 | Mechanism of thermal conductivity reduction in few-layer graphene. 2011 , 110, 044317 | 112 |
| 1916 | Facile one-step transfer process of graphene. 2011 , 22, 225606 | 14 |
| 1915 | Localized States and resultant band bending in graphene antidot superlattices. <i>Nano Letters</i> , 2011 , 11, 1254-8 | 44 |
| 1914 | Graphene nucleation on transition metal surface: structure transformation and role of the metal step edge. 2011 , 133, 5009-15 | 273 |
| 1913 | Surface enhanced Raman scattering of aged graphene: Effects of annealing in vacuum. 2011 , 99, 233103 | 20 |
| 1912 | Stretching-enhanced ballistic thermal conductance in graphene nanoribbons. 2011 , 96, 16002 | 29 |
| 1911 | Anisotropic Electrical Transport Properties of Graphene Nanoplatelets/Pyrene Composites by Electric-Field-Assisted Thermal Annealing. 2011 , 115, 16652-16656 | 12 |
| 1910 | Hybrid gold nanoparticle-reduced graphene oxide nanosheets as active catalysts for highly efficient reduction of nitroarenes. 2011 , 21, 15431 | 194 |
| 1909 | Honeycomb-Patterned Quantum Dots beyond Graphene. 2011 , 115, 17743-17749 | 21 |
| 1908 | Graphene Colloidal Suspensions as High Performance Semi-Synthetic Metal-Working Fluids. 2011 , 115, 3410-3415 | 55 |
| 1907 | Thermal transport in suspended and supported few-layer graphene. <i>Nano Letters</i> , 2011 , 11, 113-8 11.5 | 214 |
| 1906 | Chirality and thickness-dependent thermal conductivity of few-layer graphene: A molecular dynamics study. 2011 , 98, 113107 | 146 |
| 1905 | Impermeable graphenic encasement of bacteria. <i>Nano Letters</i> , 2011 , 11, 1270-5 | 126 |
| 1904 | Influence of hydrogen functionalization on thermal conductivity of graphene: Nonequilibrium molecular dynamics simulations. 2011 , 98, 033107 | 102 |
| 1903 | High-throughput large-area automated identification and quality control of graphene and few-layer graphene films. 2011 , 5, 914-22 | 59 |
| 1902 | Graphene nanopatterns with crystallographic orientation control for nanoelectronic applications. 2011 , 20, 1212-1217 | 9 |

| 1901 | The 2010 Nobel Prize in physicsground-breaking experiments on graphene. 2011 , 44, 473001 | 41 |
|------|---|-----|
| 1900 | Graphene-based thermal interface materials. 2011 , | 7 |
| 1899 | Physics of Carbon Nanostructures. 2011 , 155-194 | 3 |
| 1898 | Enhanced thermoelectric properties in graphene nanoribbons by resonant tunneling of electrons. 2011 , 83, | 130 |
| 1897 | Graphene: Its Fundamentals to Future Applications. 2011 , 59, 2702-2708 | 56 |
| 1896 | In situ production of high filler content graphene-based polymer nanocomposites by reactive processing. 2011 , 21, 16544 | 44 |
| 1895 | Graphene transistors via in situ voltage-induced reduction of graphene-oxide under ambient conditions. 2011 , 133, 14320-6 | 50 |
| 1894 | Making silica nanoparticle-covered graphene oxide nanohybrids as general building blocks for large-area superhydrophilic coatings. 2011 , 3, 519-28 | 199 |
| 1893 | Graphene Ambipolar Multiplier Phase Detector. 2011 , 32, 1328-1330 | 47 |
| 1892 | Optical and sensing properties of 1-pyrenecarboxylic Acid-functionalized graphene films laminated on polydimethylsiloxane membranes. 2011 , 5, 1003-11 | 66 |
| 1891 | Electrical and noise characteristics of graphene field-effect transistors. 2011, | 3 |
| 1890 | Low-frequency noise in graphene field-effect transistors. 2011 , | 4 |
| 1889 | Nanomaterials for Alternative Energy. 2011 , 199-246 | |
| 1888 | Effective Heat Transfer Properties of Graphene Sheet Nanocomposites and Comparison to Carbon Nanotube Nanocomposites. 2011 , 115, 3872-3880 | 39 |
| 1887 | Thermal expansion of supported and freestanding graphene: lattice constant versus interatomic distance. 2011 , 106, 135501 | 124 |
| 1886 | Graphene as a Q-Switcher for Neodymium-Doped Lutetium Vanadate Laser. 2011 , 4, 022704 | 22 |
| 1885 | Carbon-Based Materials: Growth, Properties, MEMS/NEMS Technologies, and MEM/NEM Switches. 2011 , 36, 66-101 | 48 |
| 1884 | Li-air rechargeable battery based on metal-free graphene nanosheet catalysts. 2011 , 5, 3020-6 | 353 |

| 1883 | Graphene: fabrication methods and thermophysical properties. 2011 , 181, 233 | 31 |
|------|--|-----|
| 1882 | In-plane and cross-plane thermal conductivity of graphene: applications in thermal interface materials. 2011 , | 5 |
| 1881 | Reversible Tuning of the Electronic Properties of Graphene via Controlled Exposure to Electron Beam Irradiation and Annealing. 2011 , 1344, 1 | |
| 1880 | Geometrical effects on the thermoelectric properties of ballistic graphene antidot lattices. 2011 , 110, 054506 | 61 |
| 1879 | Interflake thermal conductance of edge-passivated graphene. 2011 , 84, | 8 |
| 1878 | Large-Area Industrial-Scale Identification and Quality Control of Graphene. 2011 , 1344, 1 | |
| 1877 | Effects of domains in phonon conduction through hybrid boron nitride and graphene sheets. 2011 , 84, | 53 |
| 1876 | Minimum thermal conductance in graphene and boron nitride superlattice. 2011 , 99, 043109 | 74 |
| 1875 | Electrical and thermal conductivity of low temperature CVD graphene: the effect of disorder. 2011 , 22, 275716 | 113 |
| 1874 | A novel bath lily-like graphene sheet-wrapped nano-Si composite as a high performance anode material for Li-ion batteries. 2011 , 1, 958 | 78 |
| 1873 | A green approach to the synthesis of reduced graphene oxide nanosheets under UV irradiation. 2011 , 22, 215601 | 196 |
| 1872 | Size fractionation of graphene oxide sheets by pH-assisted selective sedimentation. 2011 , 133, 6338-42 | 264 |
| 1871 | Thermal transport across twin grain boundaries in polycrystalline graphene from nonequilibrium molecular dynamics simulations. <i>Nano Letters</i> , 2011 , 11, 3917-21 | 273 |
| 1870 | Enhanced Thermal Conductivity in a Nanostructured Phase Change Composite due to Low Concentration Graphene Additives. 2011 , 115, 8753-8758 | 330 |
| 1869 | Highly reproducible memory effect of organic multilevel resistive-switch device utilizing graphene oxide sheets/polyimide hybrid nanocomposite. 2011 , 99, 042108 | 78 |
| 1868 | First-principles study of heat transport properties of graphene nanoribbons. <i>Nano Letters</i> , 2011 , 11, 214-92.5 | 102 |
| 1867 | Phonon engineering in carbon nanotubes by controlling defect concentration. <i>Nano Letters</i> , 2011 , 11, 4971-7 | 90 |
| 1866 | Control of thermal and electronic transport in defect-engineered graphene nanoribbons. 2011 , 5, 3779-87 | 279 |

| 1865 | A review on carbon-based materials as on-chip interconnects. 2011 , | | 1 |
|------|---|------|------|
| 1864 | Half metallicity in BC2)N nanoribbons: stability, electronic structures, and magnetism. 2011 , 3, 2583-8 | | 28 |
| 1863 | Thermal conduction and rectification in few-layer graphene Y junctions. 2011 , 3, 4604-7 | | 111 |
| 1862 | Poly(vinyl alcohol) nanocomposites based on graphene and graphite oxide: a comparative investigation of property and mechanism. 2011 , 21, 13942 | | 303 |
| 1861 | Graphene veils and sandwiches. <i>Nano Letters</i> , 2011 , 11, 3290-4 | 11.5 | 49 |
| 1860 | Chemically active reduced graphene oxide with tunable C/O ratios. 2011 , 5, 4380-91 | | 295 |
| 1859 | Nucleation Mechanism of Electrochemical Deposition of Cu on Reduced Graphene Oxide Electrodes. 2011 , 115, 15973-15979 | | 40 |
| 1858 | Graphene chiral liquid crystals and macroscopic assembled fibres. 2011 , 2, 571 | | 833 |
| 1857 | Direct exfoliation of graphene in organic solvents with addition of NaOH. 2011 , 47, 6888-90 | | 109 |
| 1856 | Selective deposition of CdSe nanoparticles on reduced graphene oxide to understand photoinduced charge transfer in hybrid nanostructures. 2011 , 3, 2703-9 | | 24 |
| 1855 | Graphene based new energy materials. 2011 , 4, 1113 | | 1637 |
| 1854 | Thinning vertical graphenes, tuning electrical response: from semiconducting to metallic. 2011 , 21, 1633 | 39 | 22 |
| 1853 | In situ polymerization of graphene nanosheets and polyurethane with enhanced mechanical and thermal properties. 2011 , 21, 4222 | | 330 |
| 1852 | Orientation dependence of thermal conductivity in copper-graphene composites. 2011 , 110, 074901 | | 34 |
| 1851 | Graphene: materials in the Flatland. 2011 , 181, 1299 | | 32 |
| 1850 | Thermoelectric properties of finite graphene antidot lattices. 2011 , 84, | | 112 |
| 1849 | Interplay between geometrical structure and electronic properties in rippled free-standing graphene. 2011 , 83, | | 32 |
| 1848 | Thermal Conductive Materials Based on Carbon Nanotubes and Graphene Nanosheets. 2011 , 755-786 | | 2 |

| 1847 | Photoreaction of Graphene Oxide Nanosheets in Water. 2011 , 115, 19280-19286 | 212 |
|------|---|-----|
| 1846 | Effect of layer stacking on the electronic structure of graphene nanoribbons. 2011 , 5, 6096-101 | 29 |
| 1845 | Hierarchical graphene nanocones over 3D platform of carbon fabrics: a route towards fully foldable graphene based electron source. 2011 , 3, 4135-41 | 32 |
| 1844 | Carbon-based layer-by-layer nanostructures: from films to hollow capsules. 2011 , 3, 4515-31 | 78 |
| 1843 | A molecular dynamics study of the mechanical properties of graphene nanoribbon-embedded gold composites. 2011 , 3, 4307-13 | 10 |
| 1842 | Theoretical study on thermoelectric properties of kinked graphene nanoribbons. 2011 , 84, | 53 |
| 1841 | Thermal Conductivity Measurement of Graphene Exfoliated on Silicon Dioxide. 2011 , 133, | 28 |
| 1840 | Raman characterization of thermal conduction in transparent carbon nanotube films. 2011 , 27, 14532-8 | 16 |
| 1839 | Thermal transport in graphene-based nanocomposite. 2011 , 110, 033517 | 80 |
| 1838 | Heat conduction in graphene flakes with inhomogeneous mass interface. 2011 , 2011, P10031 | 14 |
| 1837 | Aryl functionalization as a route to band gap engineering in single layer graphene devices. <i>Nano Letters</i> , 2011 , 11, 4047-51 | 127 |
| 1836 | Grain boundary mapping in polycrystalline graphene. 2011 , 5, 2142-6 | 522 |
| 1835 | Modification of graphene oxide with amphiphilic double-crystalline block copolymer polyethylene-b-poly(ethylene oxide) with assistance of supercritical CO2 and its further functionalization. 2011 , 115, 5815-26 | 34 |
| 1834 | Mechanical and thermal transport properties of graphene with defects. 2011 , 99, 041901 | 288 |
| 1833 | Electrochemical performance of a graphene-polypyrrole nanocomposite as a supercapacitor electrode. 2011 , 22, 295202 | 132 |
| 1832 | A three-dimensional vertically aligned functionalized multilayer graphene architecture: an approach for graphene-based thermal interfacial materials. 2011 , 5, 2392-401 | 244 |
| 1831 | Synthesis of Ultrathin Silicon Nanosheets by Using Graphene Oxide as Template. 2011 , 23, 5293-5295 | 151 |
| 1830 | Protein-directed reduction of graphene oxide and intracellular imaging. 2011 , 47, 12658-60 | 54 |

1829 Suppressing temperature rise in AlGaN/GaN HEMT with graphene layers. 2011,

| 1828 | Coronene Fusion by Heat Treatment: Road to Nanographenes. 2011 , 115, 13207-13214 | 45 |
|------|--|-----|
| 1827 | Preparation and characterization of polypropylene-graft-thermally reduced graphite oxide with an improved compatibility with polypropylene-based nanocomposite. 2011 , 3, 1516-22 | 75 |
| 1826 | First principle study of the thermal conductance in graphene nanoribbon with vacancy and substitutional silicon defects. 2011 , 98, 113114 | 61 |
| 1825 | Temperature dependence of Raman scattering from 4H-SiC with hexagonal defects. 2011 , 99, 011912 | 12 |
| 1824 | Compounded effect of vacancy on interfacial thermal transport in diamond@raphene nanostructures. 2011 , 20, 1137-1142 | 5 |
| 1823 | Growth mechanism of multilayer-graphene-capped, vertically aligned multiwalled carbon nanotube arrays. 2011 , 29, 061801 | 6 |
| 1822 | Graphene-on-paper sound source devices. 2011 , 5, 4878-85 | 164 |
| 1821 | Transport behavior and negative magnetoresistance in chemically reduced graphene oxide nanofilms. 2011 , 22, 335701 | 25 |
| 1820 | A hybrid material of vanadium nitride and nitrogen-doped graphene for lithium storage. 2011 , 21, 11916 | 83 |
| 1819 | Nanotechnology Research Directions for Societal Needs in 2020. 2011 , | 151 |
| 1818 | Raman measurements of thermal transport in suspended monolayer graphene of variable sizes in vacuum and gaseous environments. 2011 , 5, 321-8 | 391 |
| 1817 | . 2011 , 32, 1110-1112 | 31 |
| 1816 | Enhanced thermopower of graphene films with oxygen plasma treatment. 2011 , 5, 2749-55 | 162 |
| 1815 | Local voltage drop in a single functionalized graphene sheet characterized by Kelvin probe force microscopy. <i>Nano Letters</i> , 2011 , 11, 3543-9 | 75 |
| 1814 | Simulation insights into thermally conductive graphene-based nanocomposites. 2011 , 109, 97-111 | 51 |
| 1813 | Performance of large-area few-layer graphene saturable absorber in femtosecond bulk laser. 2011 , 99, 261107 | 46 |
| 1812 | Graphene-Based Solid-Phase Extraction for a Sensitive Determination of Trace Amounts of Lead in Water Samples. 2011 , 1, 337-348 | |

| 1811 | High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. 2011 , 99, 183105 | 61 |
|------|--|-----|
| 1810 | Thermal conductivity enhancement of nanofluids containing graphene nanosheets. 2011 , 110, 084302 | 151 |
| 1809 | Green Approach To Prepare Graphene-Based Composites with High Microwave Absorption Capacity. 2011 , 115, 11673-11677 | 282 |
| 1808 | Controllable synthesis of graphene-based titanium dioxide nanocomposites by atomic layer deposition. 2011 , 22, 165602 | 82 |
| 1807 | Transparent, luminescent, antibacterial and patternable film forming composites of graphene oxide/reduced graphene oxide. 2011 , 3, 2643-54 | 100 |
| 1806 | Negative thermal expansion coefficient of graphene measured by Raman spectroscopy. <i>Nano Letters</i> , 2011 , 11, 3227-31 | 703 |
| 1805 | Thermal conductivity and thermal rectification in unzipped carbon nanotubes. 2011 , 23, 215301 | 18 |
| 1804 | Interface thermal resistance and thermal rectification in hybrid graphene-graphane nanoribbons: A nonequilibrium molecular dynamics study. 2011 , 99, 051917 | 93 |
| 1803 | Tuning of Graphene Properties via Controlled Exposure to Electron Beams. 2011 , 10, 865-870 | 63 |
| 1802 | Direct synthesis of lithium-intercalated graphene for electrochemical energy storage application. 2011 , 5, 4345-9 | 110 |
| 1801 | Large-area graphene films by simple solution casting of edge-selectively functionalized graphite. 2011 , 5, 4974-80 | 85 |
| 1800 | MnO2 assisted oxidative polymerization of aniline on graphene sheets: Superior nanocomposite electrodes for electrochemical supercapacitors. 2011 , 21, 16216 | 60 |
| 1799 | Top down method for synthesis of highly conducting graphene by exfoliation of graphite oxide using focused solar radiation. 2011 , 21, 6800 | 139 |
| 1798 | Heat conductivity of DNA double helix. 2011 , 83, | 37 |
| 1797 | Facile synthesis of one dimensional graphene wrapped carbon nanotube composites by chemical vapour deposition. 2011 , 21, 15179 | 46 |
| 1796 | Decorating graphene sheets with Pt nanoparticles using sodium citrate as reductant. 2011 , 257, 10758-10762 | 44 |
| 1795 | One-step preparation of hierarchical superparamagnetic iron oxide/graphene composites via hydrothermal method. 2011 , 258, 1132-1138 | 99 |
| 1794 | Formation of Carbon Clusters in the Initial Stage of Chemical Vapor Deposition Graphene Growth on Ni(111) Surface. 2011 , 115, 17695-17703 | 109 |

| 1793 | Nobel Lecture: Graphene: Materials in the Flatland*. 2011, 83, 837-849 | 584 |
|------|---|------|
| 1792 | Microwave-assisted rapid synthesis of water-soluble graphene. 2011 , 21, 10421 | 37 |
| 1791 | Water-dispersible magnetite-graphene-LDH composites for efficient arsenate removal. 2011 , 21, 17353 | 220 |
| 1790 | Fe3O4© raphene Nanocomposites with Improved Lithium Storage and Magnetism Properties. 2011 , 115, 14469-14477 | 421 |
| 1789 | In situ preparation of functionalized graphene oxide/epoxy nanocomposites with effective reinforcements. 2011 , 21, 13290 | 325 |
| 1788 | High concentration few-layer graphene sheets obtained by liquid phase exfoliation of graphite in ionic liquid. 2011 , 21, 3428-3431 | 317 |
| 1787 | Efficient linear scaling method for computing the thermal conductivity of disordered materials. 2011 , 83, | 34 |
| 1786 | Transfer of CVD-grown monolayer graphene onto arbitrary substrates. 2011 , 5, 6916-24 | 1059 |
| 1785 | Graphene saturable absorber mirror for ultra-fast-pulse solid-state laser. 2011 , 36, 1948-50 | 151 |
| 1784 | Graphene valley filter using a line defect. 2011 , 106, 136806 | 369 |
| 1783 | Large-area transparent conductive few-layer graphene electrode in GaN-based ultra-violet light-emitting diodes. 2011 , 99, 143101 | 84 |
| 1782 | Graphene-based electrochemical energy conversion and storage: fuel cells, supercapacitors and lithium ion batteries. 2011 , 13, 15384-402 | 432 |
| 1781 | Vertical alignment of reduced graphene oxide/Fe-oxide hybrids using the magneto-evaporation method. 2011 , 47, 5211-3 | 9 |
| 1780 | Target recycling amplification for sensitive and label-free impedimetric genosensing based on hairpin DNA and graphene/Au nanocomposites. 2011 , 47, 12798-800 | 71 |
| 1779 | Microwave-Exfoliated Graphite Oxide/Polycarbonate Composites. 2011, 44, 6488-6495 | 90 |
| 1778 | High-performance self-assembled graphene hydrogels prepared by chemical reduction of graphene oxide. 2011 , 26, 9-15 | 249 |
| 1777 | Reliability of bottom-gate graphene field-effect transistors prepared by using inductively coupled plasma-chemical vapor deposition. 2011 , 98, 193504 | 8 |
| 1776 | High Surface Area, sp(2)-Cross-Linked Three-Dimensional Graphene Monoliths. 2011 , 2, 921-5 | 194 |

| 1775 | Characterization of thermal transport in low-dimensional boron nitride nanostructures. 2011, 84, | 227 |
|------|--|-----|
| 1774 | Assembly of Ni(OH)2 nanoplates on reduced graphene oxide: a two dimensional nanocomposite for enzyme-free glucose sensing. 2011 , 21, 16949 | 208 |
| 1773 | Nanostructure control of graphene-composited TiO2 by a one-step solvothermal approach for high performance dye-sensitized solar cells. 2011 , 3, 4613-6 | 94 |
| 1772 | Toughening in graphene ceramic composites. 2011 , 5, 3182-90 | 494 |
| 1771 | Non-aqueous approach to the preparation of reduced graphene oxide/ENi(OH)2 hybrid composites and their high capacitance behavior. 2011 , 47, 6305-7 | 384 |
| 1770 | An atomistic study of thermal conductance across a metal-graphene nanoribbon interface. 2011 , 109, 074305 | 16 |
| 1769 | Fullerenes, carbon nanotubes, and graphene for molecular electronics. 2012 , 312, 127-74 | 19 |
| 1768 | Growth of graphene from food, insects, and waste. 2011 , 5, 7601-7 | 384 |
| 1767 | Electronic Properties of Graphene Nanoribbons. 2011 , 277-299 | 3 |
| 1766 | Influence of polymeric residue on the thermal conductivity of suspended bilayer graphene. <i>Nano Letters</i> , 2011 , 11, 1195-200 | 217 |
| 1765 | Second-order overtone and combination Raman modes of graphene layers in the range of 1690-2150 cm(-1). 2011 , 5, 1600-5 | 120 |
| 1764 | High-performance graphene-based transparent flexible heaters. <i>Nano Letters</i> , 2011 , 11, 5154-8 | 396 |
| 1763 | Bimetallic Pt-Au nanocatalysts electrochemically deposited on graphene and their electrocatalytic characteristics towards oxygen reduction and methanol oxidation. 2011 , 13, 4083-94 | 222 |
| 1762 | Surfactant free graphene nanosheets based nanofluids by in-situ reduction of alkaline graphite oxide suspensions. 2011 , 110, 124326 | 38 |
| 1761 | Synthesis and Transport Properties of Metal Oxide Decorated Graphene Dispersed Nanofluids. 2011 , 115, 8527-8533 | 155 |
| 1760 | Large-scale mechanical peeling of boron nitride nanosheets by low-energy ball milling. 2011 , 21, 11862 | 301 |
| 1759 | Advanced mechanical properties of graphene paper. 2011 , 109, 014306 | 132 |
| 1758 | Sodium deoxycholate functionalized graphene and its composites with polyvinyl alcohol. 2011 , 44, 445302 | 14 |

| 1757 | Functionalization of graphene sheets through fullerene attachment. 2011 , 21, 5386 | 93 |
|------|---|-----|
| 1756 | Thermal conductivity of suspended pristine graphene measured by Raman spectroscopy. 2011 , 83, | 269 |
| 1755 | Temperature and gate voltage dependent Raman spectra of single-layer graphene. 2011 , 5, 5273-9 | 36 |
| 1754 | Edge-functionalized graphene-like platelets as a co-curing agent and a nanoscale additive to epoxy resin. 2011 , 21, 7337 | 76 |
| 1753 | Assembly of chemically modified graphene: methods and applications. 2011 , 21, 3311-3323 | 231 |
| 1752 | Graphene growth with giant domains using chemical vapor deposition. 2011 , 13, 6933 | 15 |
| 1751 | Atomic resolution imaging of the edges of catalytically etched suspended few-layer graphene. 2011 , 5, 1975-83 | 42 |
| 1750 | Facile synthesis of soluble graphene via a green reduction of graphene oxide in tea solution and its biocomposites. 2011 , 3, 1127-33 | 459 |
| 1749 | Vertical ZnO nanowires/graphene hybrids for transparent and flexible field emission. 2011 , 21, 3432-3437 | 216 |
| 1748 | Antimicrobial graphene polymer (PVK-GO) nanocomposite films. 2011 , 47, 8892-4 | 163 |
| 1747 | Colloquium: Heat flow and thermoelectricity in atomic and molecular junctions. 2011 , 83, 131-155 | 612 |
| 1746 | Electrical Conductivity of Melt Compounded Functionalized Graphene Sheets Filled Polyethyleneterephthalate Composites. 2011 , | 1 |
| 1745 | Theoretical Study on Magnetoelectric and Thermoelectric Properties for Graphene Devices. 2011 , 50, 070115 | 8 |
| 1744 | Heat Conduction Law in Dielectric Nanosystems Based on the Thermomass Theory. 2011, | |
| 1743 | Thermal Conductivity Reduction in Few-Layer Graphene. 2011, | |
| 1742 | Thermoelectric performance of electrons in ballistic graphene ribbons. 2011, | 2 |
| 1741 | A sensitive label-free amperometric CEA immunosensor based on graphene-nafion nanocomposite film as an enhanced sensing platform. 2011 , 27, 727 | 24 |
| 1740 | Low-frequency Raman scattering from silicon nanostructures. 2011 , 110, 064317 | 8 |

(2011-2011)

Role of Edge Chirality and Isotope Doping in Thermal Transport and Thermal Rectification in Graphene Nanoribbons. **2011**,

| 1738 | Synthetic Aspects and Selected Properties of Graphene. 2011 , 1, 5 | 7 |
|------|--|------|
| 1737 | Imaging of Bernal stacked and misoriented graphene and boron nitride: experiment and simulation. 2011 , 244, 152-8 | 19 |
| 1736 | Three-dimensional flexible and conductive interconnected graphene networks grown by chemical vapour deposition. 2011 , 10, 424-8 | 3105 |
| 1735 | Graphene: A novel carbon nanomaterial. 2011 , 47, 1-10 | 55 |
| 1734 | Graphene and graphene oxide: biofunctionalization and applications in biotechnology. 2011 , 29, 205-12 | 1150 |
| 1733 | Hemin functionalized graphene nanosheets-based dual biosensor platforms for hydrogen peroxide and glucose. 2011 , 160, 295-300 | 121 |
| 1732 | GMR effects in graphene-based Ferromagnetic/Normal/Ferromagnetic junctions. 2011 , 44, 647-653 | 13 |
| 1731 | Enhanced mechanical and electrical properties of polyimide film by graphene sheets via in situ polymerization. 2011 , 52, 5237-5242 | 192 |
| 1730 | Layer-by-layer assembly of graphene/polyaniline multilayer films and their application for electrochromic devices. 2011 , 52, 5567-5572 | 135 |
| 1729 | Graphene-Driven Revolutions in ICT and Beyond. 2011 , 7, 30-33 | 9 |
| 1728 | Synthesis of graphene/Ag nanocomposite with good dispersibility and electroconductibility via solvothermal method. 2011 , 129, 270-274 | 60 |
| 1727 | A facile method to prepare stable noncovalent functionalized graphene solution by using thionine. 2011 , 46, 583-587 | 48 |
| 1726 | The Heat Is On: Graphene Applications. 2011 , 5, 15-19 | 13 |
| 1725 | High-Frequency Behavior of Graphene-Based InterconnectsPart I: Impedance Modeling. 2011, 58, 843-852 | 48 |
| 1724 | Thermal conductivity of carbon nanotubes and graphene in epoxy nanofluids and nanocomposites. 2011 , 6, 610 | 88 |
| 1723 | Adsorption of fluoride from aqueous solution by graphene. 2011 , 363, 348-54 | 226 |
| 1722 | Dispersion patterns of graphene and carbon nanotubes in ceramic matrix composites. 2011 , 511, 340-343 | 67 |

| 1721 | Selective synthesis of carbon nanotubes and multi-layer graphene by controlling catalyst thickness. 2011 , 514, 294-300 | 28 |
|--------------------------------------|--|-----------------------------|
| 1720 | Thermal analysis of poly(sodium 4-styrenesulfonate) intercalated graphite oxide composites. 2011 , 517, 196-198 | 9 |
| 1719 | Electrochemical sensor for dopamine based on a novel graphene-molecular imprinted polymers composite recognition element. 2011 , 28, 291-7 | 216 |
| 1718 | A multi-amplification aptasensor for highly sensitive detection of thrombin based on high-quality hollow CoPt nanoparticles decorated graphene. 2011 , 30, 61-6 | 46 |
| 1717 | Temperature dependent transfer characteristics of graphene field effect transistors fabricated using photolithography. 2011 , 11, S381-S384 | 15 |
| 1716 | Simulations for the formation dynamics and electronic states of carbon nano materials: Diffusion and alignment of oxygen atoms on graphene. 2011 , 11, S50-S54 | 5 |
| 1715 | Thermal conductivity and structure of non-covalent functionalized graphene/epoxy composites. 2011 , 49, 5107-5116 | 572 |
| 1714 | Graphene-modified carbon fiber mats used to improve the activity and stability of Pt catalyst for methanol electrochemical oxidation. 2011 , 49, 5158-5165 | 62 |
| 1713 | Electrochemistry of folded graphene edges. 2011 , 3, 2256-60 | 69 |
| | | |
| 1712 | Graphene: learning from carbon nanotubes. 2011 , 21, 919-929 | 41 |
| <u> </u> | Graphene: learning from carbon nanotubes. 2011 , 21, 919-929 Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011 , 2, 2897-2905 | 210 |
| <u> </u> | | |
| 1711 1710 | Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011 , 2, 2897-2905 Thermal conductivity of carbon nanotube-polyamide-6,6 nanocomposites: reverse non-equilibrium | 210 |
| 1711 1710 1709 | Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011, 2, 2897-2905 Thermal conductivity of carbon nanotube-polyamide-6,6 nanocomposites: reverse non-equilibrium molecular dynamics simulations. 2011, 135, 184905 | 210 |
| 1711 1710 1709 | Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011, 2, 2897-2905 Thermal conductivity of carbon nanotube-polyamide-6,6 nanocomposites: reverse non-equilibrium molecular dynamics simulations. 2011, 135, 184905 All-optical high-resolution nanopatterning and 3D suspending of graphene. 2011, 5, 5141-50 | 210 28 42 |
| 1711 1710 1709 1708 | Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011, 2, 2897-2905 Thermal conductivity of carbon nanotube-polyamide-6,6 nanocomposites: reverse non-equilibrium molecular dynamics simulations. 2011, 135, 184905 All-optical high-resolution nanopatterning and 3D suspending of graphene. 2011, 5, 5141-50 Functionalization of pristine graphene with perfluorophenyl azides. 2011, 21, 3273 | 210 28 42 70 |
| 1711 1710 1709 1708 1707 | Tailoring Electronic Properties of Graphene by Estacking with Aromatic Molecules. 2011, 2, 2897-2905 Thermal conductivity of carbon nanotube-polyamide-6,6 nanocomposites: reverse non-equilibrium molecular dynamics simulations. 2011, 135, 184905 All-optical high-resolution nanopatterning and 3D suspending of graphene. 2011, 5, 5141-50 Functionalization of pristine graphene with perfluorophenyl azides. 2011, 21, 3273 Acoustic phonons and spin relaxation in graphene nanoribbons. 2011, 84, Reparameterization of the REBO-CHO potential for graphene oxide molecular dynamics | 210 28 42 70 27 |

| 1703 | Liquid-phase exfoliation, functionalization and applications of graphene. 2011, 3, 2118-26 | 241 |
|------|--|------|
| 1702 | Graphene/cellulose nanocomposite paper with high electrical and mechanical performances. 2011 , 21, 13991 | 213 |
| 1701 | Polymer nanocomposite bipolar plates reinforced with carbon nanotubes and graphite nanosheets. 2011 , 4, 605 | 43 |
| 1700 | Graphene nanosheet: synthesis, molecular engineering, thin film, hybrids, and energy and analytical applications. 2011 , 40, 2644-72 | 1085 |
| 1699 | A tunable electron wave filter based on graphene superlattices with periodic potential patterns. 2011 , 99, 072108 | 22 |
| 1698 | Synthesis of graphene nanoribbons encapsulated in single-walled carbon nanotubes. <i>Nano Letters</i> , 2011 , 11, 4352-6 | 148 |
| 1697 | An infrared-light responsive graphene-oxide incorporated poly(N-isopropylacrylamide) hydrogel nanocomposite. 2011 , 7, 5604 | 184 |
| 1696 | One-step in situball milling synthesis of polymer-functionalized graphene nanocomposites. 2011 , 21, 8626 | 145 |
| 1695 | Fluorescent whitening agent stabilized graphene and its composites with chitosan. 2011, 21, 17111 | 32 |
| 1694 | Using normal modes to calculate and optimize thermal conductivity in functionalized macromolecules. 2011 , 83, 056708 | 2 |
| 1693 | Preparation and examination of multilayer graphene nanosheets by exfoliation of graphite in high efficient attritor mill. 2011 , 9, 47-51 | 23 |
| 1692 | Direct exfoliation of graphene in methanesulfonic acid and facile synthesis of graphene/polybenzimidazole nanocomposites. 2011 , 21, 505-512 | 69 |
| 1691 | Strain and charge carrier coupling in epitaxial graphene. 2011 , 84, | 46 |
| 1690 | Controlled Growth of Multilayer, Few-Layer, and Single-Layer Graphene on Metal Substrates. 2011 , 115, 5232-5238 | 107 |
| 1689 | Thermal properties of graphene and nanostructured carbon materials. 2011 , 10, 569-81 | 4185 |
| 1688 | Electronic transport in two-dimensional graphene. 2011 , 83, 407-470 | 2416 |
| 1687 | Anharmonic phonon effects in Raman spectra of unsupported vertical graphene sheets. 2011 , 83, | 52 |
| 1686 | Toward practical gas sensing with highly reduced graphene oxide: a new signal processing method to circumvent run-to-run and device-to-device variations. 2011 , 5, 1154-64 | 312 |

| 1685 | Flexural phonons and thermal transport in multilayer graphene and graphite. 2011, 83, | 230 |
|------|--|-----------------------|
| 1684 | Synthesis and nanofluid application of silver nanoparticles decorated graphene. 2011 , 21, 9702 | 171 |
| 1683 | Facile and simultaneous production of metal/metal oxide dispersed graphene nano composites by solar exfoliation. 2011 , 21, 17094 | 33 |
| 1682 | Reducing Graphene Oxide via Hydroxylamine: A Simple and Efficient Route to Graphene. 2011 , 115, 11957-1 | 1 9<u>6</u> 66 |
| 1681 | Reversible phase transformation in graphene nano-ribbons: Lattice shearing based mechanism. 2011 , 59, 6783-6789 | 20 |
| 1680 | TiO2/graphene composite from thermal reaction of graphene oxide and its photocatalytic activity in visible light. 2011 , 46, 2622-2626 | 289 |
| 1679 | Growth of graphene and graphite nanocrystals from a molten phase. 2011 , 46, 6255-6263 | 33 |
| 1678 | Preparation of few-layer nitrogen-doped graphene nanosheets by DC arc discharge under nitrogen atmosphere of high temperature. 2011 , 102, 289-294 | 35 |
| 1677 | Enhanced interfacial interaction for effective reinforcement of poly(vinyl alcohol) nanocomposites at low loading of graphene. 2011 , 67, 1785-1797 | 38 |
| 1676 | Agglomeration effects of thin metal catalyst on graphene film synthesized by chemical vapor deposition. 2011 , 7, 261-264 | 15 |
| 1675 | Sodium citrate: A universal reducing agent for reduction / decoration of graphene oxide with au nanoparticles. 2011 , 4, 599-611 | 137 |
| 1674 | Studies on the properties of surface and edges of N-layer graphenes. 2011 , 54, 1729-1738 | 2 |
| 1673 | Thermal Conductivity of Indium@raphene and Indium-Gallium@raphene Composites. 2011 , 40, 25-34 | 25 |
| 1672 | Growth of carbon nanowalls at atmospheric pressure for one-step gas sensor fabrication. 2011 , 6, 202 | 104 |
| 1671 | Enhanced convective heat transfer using graphene dispersed nanofluids. 2011 , 6, 289 | 117 |
| 1670 | Preparation of Pt Ag alloy nanoisland/graphene hybrid composites and its high stability and catalytic activity in methanol electro-oxidation. 2011 , 6, 551 | 95 |
| 1669 | Filler exfoliation and dispersion in polypropylene/as-received graphite nanocomposites via cryogenic milling. 2011 , 51, 2273-2281 | 21 |
| 1668 | Magnetic field induced thermal effect of phonons in graphene. 2011 , 248, 1388-1391 | 5 |

(2011-2011)

| 1667 | Theoretical description of thermal transport in graphene: The issues of phonon cut-off frequencies and polarization branches. 2011 , 248, 2609-2614 | 63 |
|------|--|------|
| 1666 | An efficient way to functionalize graphene sheets with presynthesized polymer via ATNRC chemistry. 2011 , 49, 1582-1590 | 106 |
| 1665 | Covalent polymeric modification of graphene nanosheets via surface-initiated single-electron-transfer living radical polymerization. 2011 , 49, 4977-4986 | 33 |
| 1664 | Preparation of graphene/poly(vinyl alcohol) nanocomposites with enhanced mechanical properties and water resistance. 2011 , 60, 816-822 | 242 |
| 1663 | Graphene-based materials: synthesis, characterization, properties, and applications. 2011 , 7, 1876-902 | 1968 |
| 1662 | Flexible and transparent electrothermal film heaters based on graphene materials. 2011 , 7, 3186-92 | 311 |
| 1661 | Micro/nanoscale spatial resolution temperature probing for the interfacial thermal characterization of epitaxial graphene on 4H-SiC. 2011 , 7, 3324-33 | 84 |
| 1660 | Films of Highly Disperse Electrodeposited Poly(N-vinylcarbazole)@raphene Oxide Nanocomposites. 2011 , 212, 2371-2377 | 12 |
| 1659 | Dispersion and Exfoliation of Graphene in Rubber by an Ultrasonically-Assisted Latex Mixing and In situ Reduction Process. 2011 , 296, 590-602 | 199 |
| 1658 | Electromechanical Actuators Based on Graphene and Graphene/Fe3O4 Hybrid Paper. 2011 , 21, 3778-3784 | 159 |
| 1657 | Micropatterning of graphene sheets by inkjet printing and its wideband dipole-antenna application. 2011 , 23, 2113-8 | 209 |
| 1656 | Interphases in graphene polymer-based nanocomposites: achievements and challenges. 2011 , 23, 5302-10 | 228 |
| 1655 | Lithium Storage Characteristics in Nano-Graphene Platelets. 2011 , 117-127 | 2 |
| 1654 | Preparation and Electrochemical Properties of Graphene-Modified Electrodes for All-Vanadium Redox Flow Batteries. 2011 , 23, 2139-2143 | 34 |
| 1653 | Highly Sensitive Fluorometric Hg2+ Biosensor with a Mercury(II)-Speci?c Oligonucleotide (MSO) Probe and Water-Soluble Graphene Oxide (WSGO). 2011 , 29, 1031-1035 | 21 |
| 1652 | Graphene-Based Carbon Nitride Nanosheets as Efficient Metal-Free Electrocatalysts for Oxygen Reduction Reactions. 2011 , 123, 5451-5455 | 172 |
| 1651 | Graphen: Materialien im Flachland (Nobel- Aufsatz). 2011 , 123, 7123-7141 | 22 |
| 1650 | Graphene-based carbon nitride nanosheets as efficient metal-free electrocatalysts for oxygen reduction reactions. 2011 , 50, 5339-43 | 949 |

| 1649 | Graphene: materials in the Flatland (Nobel lecture). 2011 , 50, 6986-7002 | 133 |
|------------------------------|---|---------------------------------|
| 1648 | Charm-bracelet-type poly(N-vinylcarbazole) functionalized with reduced graphene oxide for broadband optical limiting. 2011 , 17, 780-5 | 63 |
| 1647 | Surface assembly of graphene oxide nanosheets on SiO2 particles for the selective isolation of hemoglobin. 2011 , 17, 4864-70 | 93 |
| 1646 | Electrochemical preparation of free-standing few-layer graphene through oxidationEeduction cycling. 2011 , 171, 340-344 | 38 |
| 1645 | Magnetic Fe3O4-graphene oxide/polystyrene: Fabrication and characterization of a promising nanocomposite. 2011 , 172, 540-549 | 241 |
| 1644 | Evaluation of graphene as an advantageous adsorbent for solid-phase extraction with chlorophenols as model analytes. 2011 , 1218, 197-204 | 278 |
| 1643 | A SnO2/graphene composite as a high stability electrode for lithium ion batteries. 2011 , 49, 133-139 | 358 |
| 1642 | Flexible conductive graphene/poly(vinyl chloride) composite thin films with high mechanical strength and thermal stability. 2011 , 49, 198-205 | 415 |
| 1641 | Fabrication of metal-graphene hybrid materials by electroless deposition. 2011 , 49, 477-483 | 100 |
| | | |
| 1640 | Thermal conductivity of exfoliated graphite nanoplatelet paper. 2011 , 49, 773-778 | 158 |
| 1640 1639 | Thermal conductivity of exfoliated graphite nanoplatelet paper. 2011 , 49, 773-778 Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011 , 49, 1094-1100 | 158 320 |
| | Comparison of electrical properties between multi-walled carbon nanotube and graphene | |
| 1639 | Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011 , 49, 1094-1100 Graphene oxide/polybenzimidazole composites fabricated by a solvent-exchange method. 2011 , | 320 |
| 1639 1638 | Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011 , 49, 1094-1100 Graphene oxide/polybenzimidazole composites fabricated by a solvent-exchange method. 2011 , 49, 1199-1207 Reinforcement of hydrogenated carboxylated nitrile B utadiene rubber with exfoliated graphene | 320 |
| 1639 1638 1637 | Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011, 49, 1094-1100 Graphene oxide/polybenzimidazole composites fabricated by a solvent-exchange method. 2011, 49, 1199-1207 Reinforcement of hydrogenated carboxylated nitrileButadiene rubber with exfoliated graphene oxide. 2011, 49, 1608-1613 Structure, energy, and structural transformations of graphene grain boundaries from atomistic | 320 149 142 |
| 1639 1638 1637 | Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011, 49, 1094-1100 Graphene oxide/polybenzimidazole composites fabricated by a solvent-exchange method. 2011, 49, 1199-1207 Reinforcement of hydrogenated carboxylated nitrileButadiene rubber with exfoliated graphene oxide. 2011, 49, 1608-1613 Structure, energy, and structural transformations of graphene grain boundaries from atomistic simulations. 2011, 49, 2306-2317 | 320 149 142 125 |
| 1639 1638 1637 1636 | Comparison of electrical properties between multi-walled carbon nanotube and graphene nanosheet/high density polyethylene composites with a segregated network structure. 2011, 49, 1094-1100 Graphene oxide/polybenzimidazole composites fabricated by a solvent-exchange method. 2011, 49, 1199-1207 Reinforcement of hydrogenated carboxylated nitrileButadiene rubber with exfoliated graphene oxide. 2011, 49, 1608-1613 Structure, energy, and structural transformations of graphene grain boundaries from atomistic simulations. 2011, 49, 2306-2317 In-plane lattice thermal conductivities of multilayer graphene films. 2011, 49, 2653-2658 A simple method to produce almost perfect graphene on highly oriented pyrolytic graphite. 2011, | 320 149 142 125 132 |

(2011-2011)

| 1631 | Electromagnetic properties of composites containing graphite nanoplatelets at radio frequency. 2011 , 49, 4291-4300 | 69 |
|------|---|------|
| 1630 | Reversible phase transfer of graphene oxide and its use in the synthesis of graphene-based hybrid materials. 2011 , 49, 4563-4570 | 39 |
| 1629 | Solution-based synthesis and characterization of a silver nanoparticle graphene hybrid film. 2011 , 49, 4731-4738 | 116 |
| 1628 | A theoretical analysis of the thermal conductivity of hydrogenated graphene. 2011 , 49, 4752-4759 | 152 |
| 1627 | Graphene oxide/cellulose composite using NMMO monohydrate. 2011 , 86, 903-909 | 78 |
| 1626 | Effect of graphene nanosheet addition on the electrochemical performance of anode materials for lithium-ion batteries. 2011 , 688, 146-55 | 34 |
| 1625 | Raman spectra and temperature-dependent Raman scattering of carbon nanoscrolls. 2011, 501, 475-479 | 28 |
| 1624 | Radiofrequency plasma assisted exfoliation and reduction of large-area graphene oxide platelets produced by a mechanical transfer process. 2011 , 508, 285-288 | 12 |
| 1623 | Structural evolution of graphite oxide during heat treatment. 2011 , 511, 110-115 | 34 |
| 1622 | CuO/graphene composite as anode materials for lithium-ion batteries. 2011 , 56, 2306-2311 | 339 |
| 1621 | Study on phenol adsorption from aqueous solutions on exfoliated graphitic nanoplatelets. 2011 , 176, 588-595 | 20 |
| 1620 | In situ synthesis of graphene/cobalt nanocomposites and their magnetic properties. 2011 , 176, 711-715 | 77 |
| 1619 | The interlayer shear effect on graphene multilayer resonators. 2011 , 59, 1613-1622 | 83 |
| 1618 | Preparation of magnetic CoFe2O4-functionalized graphene sheets via a facile hydrothermal method and their adsorption properties. 2011 , 184, 953-958 | 225 |
| 1617 | A voltammetric sensor based on graphene-modified electrode for simultaneous determination of catechol and hydroquinone. 2011 , 650, 209-213 | 192 |
| 1616 | Improved sorption characteristics of NH3 molecules on the solution-processed graphene sheets. 2011 , 326, 208-211 | 15 |
| 1615 | Significant thermal conductivity enhancement for nanofluids containing graphene nanosheets. 2011 , 375, 1323-1328 | 263 |
| 1614 | Graphene based materials: Past, present and future. 2011 , 56, 1178-1271 | 2607 |

| 1613 | Graphene-based polymer nanocomposites. 2011 , 52, 5-25 | 2439 |
|------|---|------|
| 1612 | Kevlar oligomer functionalized graphene for polymer composites. 2011 , 52, 3661-3670 | 53 |
| 1611 | Surface potentials of few-layer graphene films in high vacuum and ambient conditions. 2011, 151, 818-821 | 15 |
| 1610 | Preparation, characterization, and supercritical carbon dioxide foaming of polystyrene/graphene oxide composites. 2011 , 56, 201-207 | 128 |
| 1609 | A cholesterol biosensor based on gold nanoparticles decorated functionalized graphene nanoplatelets. 2011 , 519, 5667-5672 | 44 |
| 1608 | A comparative analysis of Ag and Cu heat sink layers in L10-FePt films for heat-assisted magnetic recording. 2011 , 109, 07B763 | 9 |
| 1607 | Magnetothermoelectric transport in modulated and unmodulated graphene. 2011 , 23, 375301 | 1 |
| 1606 | Quantum inductance and high frequency oscillators in graphene nanoribbons. 2011 , 22, 165203 | 12 |
| 1605 | Characteristics of CVD graphene nanoribbon formed by a ZnO nanowire hardmask. 2011 , 22, 295201 | 26 |
| 1604 | Electronic Thermal Conductance of Graphene. 2011, | |
| 1603 | Second harmonic generation in CVD graphene induced by DC electric current. 2011, | |
| 1602 | Determination of substrate pinning in epitaxial and supported graphene layers via Raman scattering. 2011 , 83, | 19 |
| 1601 | Giant surface charge density of graphene resolved from scanning tunneling microscopy and first-principles theory. 2011 , 84, | 19 |
| 1600 | Scalable nanoimprint patterning of thin graphitic oxide sheets and in situ reduction. 2011 , 29, 011023 | 6 |
| 1599 | Anisotropy of lattice thermal conductivity in edge-disordered graphene nanoribbons. 2011, | |
| 1598 | Enhanced thermal conductivity and isotope effect in single-layer hexagonal boron nitride. 2011 , 84, | 290 |
| 1597 | Manipulating thermal conductivity through substrate coupling. 2011 , 84, | 36 |
| 1596 | Thermal transport in graphene and effects of vacancy defects. 2011 , 84, | 170 |

| 1595 | Hydrofluorinated graphene: Two-dimensional analog of polyvinylidene fluoride. 2011, 84, | 36 |
|------|---|----|
| 1594 | Dynamics and stability of divacancy defects in graphene. 2011 , 84, | 80 |
| 1593 | Fabrication and characterization of high-performance graphene-on-diamond devices. 2011, | |
| 1592 | Formation of Graphene p-n Junction via Complementary Doping. 2011 , 32, 1050-1052 | 9 |
| 1591 | Nonlinear thermal transport and negative differential thermal conductance in graphene nanoribbons. 2011 , 99, 113101 | 52 |
| 1590 | Nitrogen assisted etching of graphene layers in a scanning electron microscope. 2011 , 98, 243117 | 48 |
| 1589 | Local electrical stress-induced doping and formation of monolayer graphene P-N junction. 2011 , 98, 243105 | 16 |
| 1588 | Dynamic response of graphene to thermal impulse. 2011 , 84, | 57 |
| 1587 | Carbon-based interconnect: Performance, scaling and reliability of 3D stacked multilayer graphene system. 2011 , | 7 |
| 1586 | Electric, thermoelectric, and thermal conductivities of graphene with short-range unitary and charged impurities. 2011 , 84, | 15 |
| 1585 | Interpillar phononics in pillared-graphene hybrid nanostructures. 2011 , 110, 083502 | 14 |
| 1584 | Preparation of graphene by jet cavitation. 2011 , 22, 365306 | 86 |
| 1583 | Generalized heat conduction laws based on thermomass theory and phonon hydrodynamics. 2011 , 110, 063504 | 57 |
| 1582 | Absence of Casimir regime in two-dimensional nanoribbon phonon conduction. 2011 , 99, 101903 | 39 |
| 1581 | Thermal transport around tears in graphene. 2011 , 109, 043508-043508-6 | 3 |
| 1580 | Influence of laser and thermal treatment on the thermal conductivity of In-graphene composites. 2011 , 110, 094907 | 5 |
| 1579 | Thermal conductance modulator based on folded graphene nanoribbons. 2011 , 99, 233101 | 45 |
| 1578 | Graphene optoelectronics based on antidot superlattices. 2011, | |

| 1577 | Anisotropy and Edge Roughness Scattering in the Lattice Thermal Conductivity of Graphene Nanoribbons. 2011 , 35, 195-200 | 2 |
|------|---|----|
| 1576 | Thermal Properties of Graphene and Carbon Based Materials: Prospects of Thermal Management Applications. 2011 , 1344, 1 | 1 |
| 1575 | Graphene-LikeExfoliation of Quasi-2D Crystals of Titanium Ditelluride: A New Route to Charge Density Wave Materials. 2011 , 1344, 1 | |
| 1574 | Measuring thermoelectric property of nano-heterostructure. 2011 , 20, 107301 | 1 |
| 1573 | Experimental Demonstration of Thermal Management of High-Power GaN Transistors with Graphene Lateral Heat Spreaders. 2011 , 1344, 1 | 2 |
| 1572 | Monolithic Carbonaceous Materials and Carbon Matrix Composites. 2011 , 169-200 | |
| 1571 | An Investigation of the Geometrical Effects on the Thermal Conductivity of Graphene Antidot Lattices. 2011 , 35, 185-192 | |
| 1570 | Thermal Properties of Graphene: Applications in Thermal Interface Materials. 2011 , 35, 193-199 | 11 |
| 1569 | Graphene-Based Antidots for Thermoelectric Applications. 2011 , 158, K213 | 5 |
| 1568 | Dynamical temperature and renormalized flux variable in extended thermodynamics of rigid heat conductors. 2011 , 36, | 5 |
| 1567 | Necessary conditions for thermal rectification and negative differential thermal conductance in graphene nanoribbons. 2011 , 1347, 1 | |
| 1566 | Doped graphene: the interplay between localization and frustration due to the underlying triangular symmetry. 2011 , 23, 375501 | 9 |
| 1565 | Electrical conductivity and resonant states of doped graphene considering next-nearest neighbor interaction. 2011 , 91, 3844-3857 | 9 |
| 1564 | Linear and Nonlinear Thermal Transport in Graphene: Molecular Dynamics Simulations. 2011 , 1347, 1 | |
| 1563 | A simple molecular mechanics potential for th scale graphene simulations from the adaptive force matching method. 2011 , 134, 184704 | 43 |
| 1562 | Heat Transfer in Nanocomposites with Monte-Carlo Simulations. 2011 , 312-315, 177-182 | 2 |
| 1561 | Transport Properties of Graphene with Nanoscale Lateral Resolution. 2011, 247-285 | 8 |
| 1560 | The Edge Effects on the Lattice Thermal Conductivity of Graphene Nanoribbons. 2011, | |

| 1559 | Analysis of a Graphene/Ultrathin Graphite Heat Exchanger for Aerospace Thermal Management. 2011 , | |
|------|--|----|
| 1558 | Molecular Dynamics Predictions of Thermal Conductivity in Graphene for Phase Change Energy Storage Applications. 2011 , | |
| 1557 | Thermal Transport Measurements of Bilayer and Few-Layer Graphene Supported on Silicon Dioxide. 2011 , | 1 |
| 1556 | Thermal Conductivity Estimation of Nano Graphene Using Equilibrium Molecular Dynamics With Andersen and Berendsen Thermostats. 2011 , | |
| 1555 | The research of preparation and catalytic property of the titanium plate which loaded with the graphene modified SnO2. 2011 , | 1 |
| 1554 | Catalyst-free growth of mono- and few-atomic-layer boron nitride sheets by chemical vapor deposition. 2011 , 22, 215602 | 30 |
| 1553 | Thermal transport by phonons in zigzag graphene nanoribbons with structural defects. 2011 , 23, 315302 | 50 |
| 1552 | R-Matrix Theory for Nanoscale Phonon Thermal Transport across Devices and Interfaces. 2011 , 60, 235-251 | 4 |
| 1551 | LOW-FREQUENCY ELECTRONIC NOISE IN GRAPHENE TRANSISTORS: COMPARISON WITH CARBON NANOTUBES. 2011 , 20, 161-170 | 3 |
| 1550 | GRAPHENE: MATERIALS IN THE FLATLAND. 2011 , 25, 4081-4106 | 19 |
| 1549 | Nature of Graphene Edges: A Review. 2011 , 50, 070101 | 92 |
| 1548 | Interaction of CO with CuO and CuO/graphene: Reactions Mechanism and the Formation of CO2. 2011 , 354-355, 279-285 | |
| 1547 | Twisted and coiled ultralong multilayer graphene ribbons. 2011 , 19, 054003 | 86 |
| 1546 | Semiconducting states and transport in metallic armchair-edged graphene nanoribbons. 2011 , 23, 315304 | 6 |
| 1545 | Fabrication and thickness regulation of graphene film electrode by a facile drying method. 2011 , 225, 71-73 | |
| 1544 | Preparation and Li-storage properties of SnSb/graphene hybrid nanostructure by a facile one-step solvothermal route. 2011 , 1-11 | 4 |
| | | |
| 1543 | Observation of the memory steps in graphene at elevated temperatures. 2011 , 98, 222107 | 14 |

Synthesis and Adsorption Property of Graphite Oxide Modified GF/EPDM Foamed Composite. **2012** , 602-604, 1153-1156

| 1540 | Nanostructures for Medical Diagnostics. 2012 , 2012, 1-21 | 23 |
|------|---|----|
| 1539 | Light-weight nanocomposite materials with enhanced thermal transport properties. 2012, 1, 363-376 | 20 |
| 1538 | Non-local effects in radial heat transport in silicon thin layers and graphene sheets. 2012 , 468, 1217-1229 | 27 |
| 1537 | Characterization of a quantum phase transition in Dirac systems by means of the wave-packet dynamics. 2012 , 2, 042121 | |
| 1536 | Strain Gauge Based on Graphene. 2012 , 166-169, 2918-2923 | |
| 1535 | Preparation and properties of poly(vinylidene fluoride) nanocomposites blended with graphene oxide coated silica hybrids. 2012 , 6, 299-307 | 37 |
| 1534 | Graphene on Ag films for reflectively conductive layer ohmic contacts to p-type GaN in GaN-based light-emitting diodes. 2012 , | |
| 1533 | Rate of belowground carbon allocation differs with successional habit of two afromontane trees. 2012 , 7, e45540 | 10 |
| 1532 | Multilayer Graphene-Based Carbon Interconnect. 2012 , 1407, 7 | 1 |
| 1531 | The role of three-phonon Normal processes in the thermal conductivity of graphene. 2012 , 1404, 66 | |
| 1530 | Nanoscale spatial resolution probes for scanning thermal microscopy of solid state materials. 2012 , 112, 114317 | 66 |
| 1529 | Phonon-limited transport coefficients in extrinsic graphene. 2012 , 24, 195302 | 14 |
| 1528 | Electric-field-induced band gap of bilayer graphene in ionic liquid. 2012 , 30, 03D111 | 15 |
| 1527 | Tuning the Kapitza resistance in pillared-graphene nanostructures. 2012 , 111, 013515 | 10 |
| 1526 | Edge effect on thermal transport in graphene nanoribbons: A phonon localization mechanism beyond edge roughness scattering. 2012 , 101, 013101 | 72 |
| 1525 | Preparation of Sandwich-Like TiO2/Graphene/TiO2 Films and its Application in Photocatalysis. 2012 , 465, 80-85 | |
| 1524 | Thermopower and conductance for a graphene p-n junction. 2012 , 24, 145801 | 4 |

| 1523 | Dimensional crossover of thermal conductance in graphene nanoribbons: a first-principles approach. 2012 , 24, 295403 | 5 |
|------|--|----|
| 1522 | Negative thermal quenching of photoluminescence in zinc oxide nanowire-core/graphene-shell complexes. 2012 , 20 Suppl 5, A706-12 | 16 |
| 1521 | Shifting of surface plasmon resonance due to electromagnetic coupling between graphene and Au nanoparticles. 2012 , 20, 19690-6 | 36 |
| 1520 | Calculation of inter-plane thermal resistance of few-layer graphene from equilibrium molecular dynamics simulations. 2012 , 395, 012106 | 6 |
| 1519 | Graphene thickness-graded transistors with reduced electronic noise. 2012 , 100, 033103 | 49 |
| 1518 | Temperature Profile in the Presence of Hotspots in Heat Assisted Magnetic Recording. 2012 , 48, 4265-4268 | 5 |
| 1517 | Graphene-diamond hybrid structure as spin-polarized conducting wire with thermally efficient heat sinks. 2012 , 100, 233101 | 12 |
| 1516 | Thermal rectification reversal in carbon nanotubes. 2012 , 112, 103515 | 5 |
| 1515 | High field carrier transport in graphene: Insights from fast current transient. 2012 , 101, 123505 | 20 |
| 1514 | Morphology and in-plane thermal conductivity of hybrid graphene sheets. 2012 , 101, 211909 | 47 |
| 1513 | Effective thermal conductivity of graphene-based composites. 2012 , 101, 121916 | 83 |
| 1512 | The thermal flash technique: the inconsequential effect of contact resistance and the characterization of carbon nanotube clusters. 2012 , 83, 054904 | 7 |
| 1511 | Wave packet simulations of phonon boundary scattering at graphene edges. 2012 , 112, 024328 | 26 |
| 1510 | Enhanced thermoelectric figure of merit in assembled graphene nanoribbons. 2012, 86, | 68 |
| 1509 | Effects of edge potential on an armchair-graphene open boundary and nanoribbons. 2012, 85, | 12 |
| 1508 | Graphene functionalization and seeding for dielectric deposition and device integration. 2012 , 30, 030801 | 28 |
| 1507 | Nonlinear resistivity and heat dissipation in monolayer graphene. 2012 , 85, | 34 |
| 1506 | Superior thermal conductivity and extremely high mechanical strength in polyethylene chains from ab initio calculation. 2012 , 111, 124304 | 26 |

| 1505 | Enhanced thermoelectric properties in hybrid graphene/boron nitride nanoribbons. 2012, 86, | 119 |
|------|---|-----|
| 1504 | Thermal transport in graphene nanoribbons supported on SiO2. 2012 , 86, | 40 |
| 1503 | Tensile properties and thermal conductivity of graphene nanoribbons encapsulated in single-walled carbon nanotube. 2012 , 38, 922-927 | 9 |
| 1502 | One-dimensional quantum channel in a graphene line defect. 2012 , 86, | 43 |
| 1501 | Probing the experimental phonon dispersion of graphene using 12C and 13C isotopes. 2012 , 86, | 24 |
| 1500 | Ultrasensitive and Wide-Bandwidth Thermal Measurements of Graphene at Low Temperatures. 2012 , 2, | 48 |
| 1499 | Recoverable electrical transition in a single graphene sheet for application in nonvolatile memories. 2012 , 100, 042105 | 19 |
| 1498 | Study on the mechanical behavior of tilt bicrystal graphene by molecular dynamics simulations: Bulk verse nanoribbons. 2012 , 112, 043519 | 9 |
| 1497 | Electronic and vibrational properties of magnetic core-shell nanoparticles. 2012, | |
| 1496 | Negative normal stress differences in graphene/polycarbonate composites. 2012 , 100, 164108 | 13 |
| 1495 | Limited thermal conductance of metal-carbon interfaces. 2012 , 112, 094904 | 24 |
| 1494 | Bright and dark modes induced by graphene bubbles. 2012 , 97, 36004 | 1 |
| 1493 | Substrate effects on the thermal conductivity of epitaxial graphene nanoribbons. 2012, 85, | 44 |
| 1492 | Atomic control of strain in freestanding graphene. 2012 , 85, | 59 |
| 1491 | Review of Joule heating in graphene nano-ribbon. 2012, | |
| 1490 | Bioinspired design of functionalised graphene. 2012 , 38, 695-703 | 14 |
| 1489 | In situ near-edge x-ray absorption fine structure spectroscopy investigation of the thermal defunctionalization of graphene oxide. 2012 , 30, 061206 | 24 |
| 1488 | Optimize the field emission character of a vertical few-layer graphene sheet by manipulating the morphology. 2012 , 23, 015202 | 75 |

| 1487 Thermal conductivity improvement of electrically nonconducting composite materials. 2012 , 28, | 9 |
|---|---------------------|
| Metastable phase formation and structural evolution of epitaxial graphene grown on SiC(100) under a temperature gradient. 2012 , 23, 175603 | 2 |
| 1485 Graphene-nanoplatelet-based photomechanical actuators. 2012 , 23, 045501 | 80 |
| 1484 Disorder-free sputtering method on graphene. 2012 , 2, 032121 | 27 |
| Exploring carrier transport phenomena in a CVD-assembled graphene FET on hexagonal boron nitride. 2012 , 23, 125706 | 24 |
| 1482 Stress-induced annihilation of StoneWales defects in graphene nanoribbons. 2012 , 45, 305303 | 28 |
| Thermal conductivity measurements of suspended graphene with and without wrinkles by micro-Raman mapping. 2012 , 23, 365701 | 96 |
| 1480 The physics of epitaxial graphene on SiC(0001). 2012 , 24, 314215 | 21 |
| 1479 Graphene quilts for thermal management of high-power GaN transistors. 2012 , 3, 827 | 369 |
| Electrode/oxide interface engineering by inserting single-layer graphene: Application for HfOx-based resistive random access memory. 2012 , | 7 |
| ···· - · · · · · · · · · · · · · · · · | 7 |
| 1477 Effects of Process Tube Position on Properties of Graphene Layers. 2012 , 1451, 57-62 | 2 |
| Effects of Decrease Tube Decition on Decreation of Construct 2012 1454 57 62 | |
| 1477 Effects of Process Tube Position on Properties of Graphene Layers. 2012 , 1451, 57-62 | 2 |
| Effects of Process Tube Position on Properties of Graphene Layers. 2012 , 1451, 57-62 1476 Experimental Review of Graphene. 2012 , 2012, 1-56 Simultaneous Determination of Hydroquinone, Catechol and Resorcinol at Graphene Doped Carbon | 303 |
| Effects of Process Tube Position on Properties of Graphene Layers. 2012, 1451, 57-62 Experimental Review of Graphene. 2012, 2012, 1-56 Simultaneous Determination of Hydroquinone, Catechol and Resorcinol at Graphene Doped Carbon Ionic Liquid Electrode. 2012, 2012, 1-8 Preparation and Properties of Polyamide 6-Functionalized Nanometer-Sized Graphene Composite | 2 303 24 |
| Effects of Process Tube Position on Properties of Graphene Layers. 2012, 1451, 57-62 Experimental Review of Graphene. 2012, 2012, 1-56 Simultaneous Determination of Hydroquinone, Catechol and Resorcinol at Graphene Doped Carbon Ionic Liquid Electrode. 2012, 2012, 1-8 Preparation and Properties of Polyamide 6-Functionalized Nanometer-Sized Graphene Composite Fiber. 2012, 519, 20-23 | 2 303 24 1 |
| Effects of Process Tube Position on Properties of Graphene Layers. 2012, 1451, 57-62 1476 Experimental Review of Graphene. 2012, 2012, 1-56 Simultaneous Determination of Hydroquinone, Catechol and Resorcinol at Graphene Doped Carbon Ionic Liquid Electrode. 2012, 2012, 1-8 Preparation and Properties of Polyamide 6-Functionalized Nanometer-Sized Graphene Composite Fiber. 2012, 519, 20-23 Fluorinated monovacancies in graphene: Even-odd effect. 2012, 100, 37003 | 2 303 24 1 |

| 1469 | Non-Fourier heat removal from hot nanosystems through graphene layer. 2012 , 1, 38-47 | 2 |
|------|---|-----|
| 1468 | The Effects of Van Der Waals Bonding Strength on the In-Plane Lattice Thermal Conductivities of Multilayer Thin Films. 2012 , | |
| 1467 | The Phonon Thermal Conductivity of Single-Layer Graphene From Complete Phonon Dispersion Relations. 2012 , 134, | 7 |
| 1466 | Thermal Transport in 3D Pillared CNT-Graphene Nanostructures. 2012 , | |
| 1465 | Facile hydrothermal preparation of titanium dioxide decorated reduced graphene oxide nanocomposite. 2012 , 7, 3379-87 | 61 |
| 1464 | Design of multichannel electronic wave filters with each channel energy and bandwidth adjustable independently. 2012 , 59, 30402 | 1 |
| 1463 | Effect of e-beam irradiation on graphene layer grown by chemical vapor deposition. 2012, 111, 084307 | 33 |
| 1462 | Thermal Transport in Graphene Supported on Copper. 2012 , | |
| 1461 | Characteristics of Graphene-Filled Solderable Isotropically Conductive Adhesive (ICA). 2012, 53, 578-581 | 2 |
| 1460 | Anharmonic Phonon Dispersion Relations, Group Velocities, and Branch-Dependent Specific Heat Capacities Measured Directly From Molecular Dynamics Simulations at Finite Temperatures. 2012 , | |
| 1459 | Different Characterization Techniques to Evaluate Graphene and Its Properties. 2012, 95-138 | 1 |
| 1458 | - Epoxy Nanocomposites: Graphene a Promising Filler. 2012 , 338-375 | |
| 1457 | Towards transfer-free fabrication of graphene NEMS grown by chemical vapour deposition. 2012 , 7, 749 | 6 |
| 1456 | Different Characterization Techniques to Evaluate Graphene and Its Properties. 2012 , 118-161 | |
| 1455 | Shape-Controlled Synthesis of Platinum Nanostructures as Electrocatalyst for PEM Fuel Cell Applications. 2012 , 415-492 | |
| 1454 | Estimation of Young's modulus of graphene by Raman spectroscopy. <i>Nano Letters</i> , 2012 , 12, 4444-8 11.5 | 286 |
| 1453 | Perspectives of applied graphene: Polymer solar cells. 2012 , 37, 1805-1828 | 127 |
| 1452 | A seamless three-dimensional carbon nanotube graphene hybrid material. 2012 , 3, 1225 | 390 |

| 1451 Materials-based approaches to minimizing solvent usage in analytical sample preparation. 2012 , 39, 228-244 | 47 |
|---|-------|
| 1450 The application of graphene based materials for actuators. 2012 , 22, 3671 | 120 |
| 1449 Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. 2012 , 7, 699-712 | 10871 |
| Electrochemical reduction of graphene oxide films: Preparation, characterization and their electrochemical properties. 2012 , 57, 3045-3050 | 77 |
| 1447 Synthesis and antifungal activity of reduced graphene oxide nanosheets. 2012 , 50, 5156-5161 | 139 |
| Charge density waves in exfoliated films of van der Waals materials: evolution of Raman spectrum in TiSe2. <i>Nano Letters</i> , 2012 , 12, 5941-5 | 132 |
| 1445 Size dependent thermal conductivity of single-walled carbon nanotubes. 2012 , 112, 013503 | 78 |
| Enhanced thermal decomposition of nitromethane on functionalized graphene sheets: ab initio molecular dynamics simulations. 2012 , 134, 19011-6 | 72 |
| 1443 Thermal transport in functionalized graphene. 2012 , 6, 9050-7 | 110 |
| 1442 Thermally reduced graphenes exhibiting a close relationship to amorphous carbon. 2012 , 4, 4972-7 | 68 |
| 1441 Thermal and Thermoelectric Transport in Nanostructures and Low-Dimensional Systems. 2012 , 16, 79-116 | 108 |
| 1440 Graphene for energy conversion and storage in fuel cells and supercapacitors. 2012 , 1, 534-551 | 548 |
| Thermal conductivity of fluorinated graphene: A non-equilibrium molecular dynamics study. 2012 , 552, 97-101 | 61 |
| 1438 Biomedical applications of graphene. 2012 , 2, 283-94 | 719 |
| 1437 Methods of graphite exfoliation. 2012 , 22, 24992 | 389 |
| 1436 Ultrathin oxide films by atomic layer deposition on graphene. <i>Nano Letters</i> , 2012 , 12, 3706-10 11.5 | 66 |
| Anomalous size dependence of the thermal conductivity of graphene ribbons. <i>Nano Letters</i> , 2012 , 12, 3238-44 | 225 |
| 1434 Selective gas sensing with a single pristine graphene transistor. <i>Nano Letters</i> , 2012 , 12, 2294-8 11.5 | 310 |

| 1433 | Application of graphene as a sorbent for preconcentration and determination of trace amounts of chromium(III) in water samples by flame atomic absorption spectrometry. 2012 , 4, 1110 | 57 |
|------------------------------|---|---|
| 1432 | Facile method to functionalize graphene oxide and its application to poly(ethylene terephthalate)/graphene composite. 2012 , 4, 4184-91 | 127 |
| 1431 | Graphene oxide as a substrate for Raman enhancement. 2012 , 109, 81-85 | 11 |
| 1430 | Comparison of electromagnetic interference shielding properties between single-wall carbon nanotube and graphene sheet/polyaniline composites. 2012 , 45, 235108 | 134 |
| 1429 | Graphene mode-locked femtosecond Yb:KLuW laser. 2012 , 101, 161112 | 35 |
| 1428 | Facile synthesis of few-layer graphene with a controllable thickness using rapid thermal annealing. 2012 , 4, 1777-82 | 25 |
| 1427 | Flexible free-standing graphene/SnO[hanocomposites paper for Li-ion battery. 2012 , 4, 5742-8 | 133 |
| 1426 | Chapter 1:Graphene Functionalization: A Review. 2012 , 1-52 | 3 |
| 1425 | Bottom-up synthesis of large-scale graphene oxide nanosheets. 2012 , 22, 5676 | 193 |
| | | |
| 1424 | Wet chemical method for making graphene-like films from carbon black. 2012 , 4, 4491-8 | 33 |
| 1424 1423 | Wet chemical method for making graphene-like films from carbon black. 2012 , <i>4</i> , 4491-8 Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012 , 22, 2337-2350 | 33 24 |
| | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene | |
| 1423 | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012 , 22, 2337-2350 Optical Power Limiting in Fluorinated Graphene Oxide: An Insight into the Nonlinear Optical | 24 |
| 1423 1422 | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012, 22, 2337-2350 Optical Power Limiting in Fluorinated Graphene Oxide: An Insight into the Nonlinear Optical Properties. 2012, 116, 25955-25961 Graphene wrapped multiwalled carbon nanotubes dispersed nanofluids for heat transfer applications. 2012, 112, 124304 Electronic and vibrational signatures of Stone-Wales defects in graphene: First-principles analysis. | 24 |
| 1423 1422 1421 | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012, 22, 2337-2350 Optical Power Limiting in Fluorinated Graphene Oxide: An Insight into the Nonlinear Optical Properties. 2012, 116, 25955-25961 Graphene wrapped multiwalled carbon nanotubes dispersed nanofluids for heat transfer applications. 2012, 112, 124304 Electronic and vibrational signatures of Stone-Wales defects in graphene: First-principles analysis. | 24 101 47 |
| 1423 1422 1421 1420 | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012, 22, 2337-2350 Optical Power Limiting in Fluorinated Graphene Oxide: An Insight into the Nonlinear Optical Properties. 2012, 116, 25955-25961 Graphene wrapped multiwalled carbon nanotubes dispersed nanofluids for heat transfer applications. 2012, 112, 124304 Electronic and vibrational signatures of Stone-Wales defects in graphene: First-principles analysis. 2012, 86, Graphene cantilever beams for nano switches. 2012, 101, 093111 | 241014761 |
| 1423 1422 1421 1420 | Recent progress on growth and device development of ZnO and CuO nanostructures and graphene nanosheets. 2012, 22, 2337-2350 Optical Power Limiting in Fluorinated Graphene Oxide: An Insight into the Nonlinear Optical Properties. 2012, 116, 25955-25961 Graphene wrapped multiwalled carbon nanotubes dispersed nanofluids for heat transfer applications. 2012, 112, 124304 Electronic and vibrational signatures of Stone-Wales defects in graphene: First-principles analysis. 2012, 86, Graphene cantilever beams for nano switches. 2012, 101, 093111 Synthesis and characterization of nanocomposites of thermoplastic polyurethane with both | 24101476139 |

(2012-2012)

| 1415 | Functionalization and reduction of graphene oxide with p-phenylene diamine for electrically conductive and thermally stable polystyrene composites. 2012 , 4, 1948-53 | 169 |
|-------------|--|-------|
| 1414 | UV-Curable Functionalized Graphene Oxide/Polyurethane Acrylate Nanocomposite Coatings with Enhanced Thermal Stability and Mechanical Properties. 2012 , 51, 14629-14636 | 85 |
| 1413 | Thermal conductivity of sawtooth-like graphene nanoribbons: A molecular dynamics study. 2012 , 112, 123508 | 12 |
| 1412 | Ultrahigh conductivity of large area suspended few layer graphene films. 2012 , 101, 263101 | 17 |
| 1411 | Micro-Raman spectroscopy of mechanically exfoliated few-quintuple layers of Bi2Te3, Bi2Se3, and Sb2Te3 materials. 2012 , 111, 054305 | 218 |
| 1410 | Simultaneous reduction and surface functionalization of graphene oxide with POSS for reducing fire hazards in epoxy composites. 2012 , 22, 22037 | 200 |
| 1409 | Molecular Dynamics Simulation of Chemical Vapor Deposition Graphene Growth on Ni (111) Surface. 2012 , 116, 6097-6102 | 93 |
| 1408 | Molecular dynamics simulation study on heat transport in monolayer graphene sheet with various geometries. 2012 , 111, 083528 | 57 |
| 1407 | Synthesis of Ni/graphene sheets by an electroless Ni-plating method. 2012 , 27, 35-41 | 27 |
| 1406 | Three-dimensional assemblies of graphene prepared by a novel chemical reduction-induced self-assembly method. 2012 , 4, 7038-45 | 152 |
| 1405 | Ripping graphene: preferred directions. <i>Nano Letters</i> , 2012 , 12, 293-7 | 5 172 |
| 1404 | Non-Invasive High-Throughput Metrology of Functionalized Graphene Sheets. 2012 , 22, 4519-4525 | 12 |
| 1403 | Gas Diffusion, Energy Transport, and Thermal Accommodation in Single-Walled Carbon Nanotube Aerogels. 2012 , 22, 5251-5258 | 80 |
| 1402 | Ti:sapphire femtosecond laser direct micro-cutting and profiling of graphene. 2012 , 109, 291-297 | 37 |
| 1401 | Thermal conductivity of silicon and carbon hybrid monolayers: a molecular dynamics study. 2012 , 18, 4811-8 | 17 |
| 1400 | KCl-assisted, chemically reduced graphene oxide for high-performance supercapacitor electrodes. 2012 , 16, 3635-3641 | 7 |
| 4200 | | |
| 1399 | Graphene for Cleanup in Trace Analysis of Pyrethroid Insecticides in Cucumber and Spinach. 2012 , 75, 1177-1183 | 17 |

| 1397 | Fabrication and characterization of polyamide 6-functionalized graphene nanocomposite fiber. 2012 , 47, 8052-8060 | 56 |
|------|--|-----|
| 1396 | Performance of graphite nanoplatelet/silicone composites as thermal interface adhesives. 2012 , 23, 1855-1863 | 15 |
| 1395 | The influence of Al(OH)3-coated graphene oxide on improved thermal conductivity and maintained electrical resistivity of Al2O3/epoxy composites. 2012 , 14, 1 | 44 |
| 1394 | Controlled oxidation of graphite to graphene oxide with novel oxidants in a bulk scale. 2012 , 14, 1248 | 53 |
| 1393 | Preparation of a poly(methyl methacrylate)-reduced graphene oxide composite with enhanced properties by a solution blending method. 2012 , 48, 1674-1682 | 58 |
| 1392 | Complementary microscopy techniques applied for optimizing the structure and performance of graphene-based hybrids. 2012 , 119, 97-101 | 8 |
| 1391 | Thermally stable memory devices using graphene flakes sandwiched polymethyl methacrylate polymer layers. 2012 , 8, 649-653 | 12 |
| 1390 | AN IMPROVED METHOD FOR TRANSFERRING GRAPHENE GROWN BY CHEMICAL VAPOR DEPOSITION. 2012 , 07, 1150001 | 34 |
| 1389 | High-performance nanopapers based on benzenesulfonic functionalized graphenes. 2012 , 6, 10178-85 | 63 |
| 1388 | Effects of Surface Chemistry of Substrates on Raman Spectra in Graphene. 2012 , 116, 4732-4737 | 31 |
| 1387 | Fabrication of defrost films using graphenes grown by chemical vapor deposition. 2012 , 12, S113-S117 | 21 |
| 1386 | Hydrogel-Based Tunable-Focus Liquid Microlens Array With Fast Response Time. 2012 , 21, 1146-1155 | 17 |
| 1385 | Spin and charge zero-bias conductance peak in a graphene-based Fd junction. 2012 , 112, 113910 | 5 |
| 1384 | Schottky barrier inhomogeneities at the interface of few layer epitaxial graphene and silicon carbide. 2012 , 100, 183112 | 70 |
| 1383 | . 2012, | 3 |
| 1382 | Surface acoustic wave response to optical absorption by graphene composite film. 2012 , 59, 265-70 | 10 |
| 1381 | A facile preparation of palladium nanoparticles supported on magnetite/s-graphene and their catalytic application in SuzukiMiyaura reaction. 2012 , 2, 2332 | 92 |
| 1380 | Highly dispersive {001} facets-exposed nanocrystalline TiO2 on high quality graphene as a high performance photocatalyst. 2012 , 22, 7484 | 134 |

(2012-2012)

| 1379 | Effective solvothermal deoxidization of graphene oxide using solid sulphur as a reducing agent. 2012 , 22, 14385 | 36 |
|----------|--|----|
| 1378 | Relationship between intrinsic capacitance and thickness of graphene nanosheets. 2012 , 22, 13091 | 8 |
| 1377 | Sulfur as an important co-factor in the formation of multilayer graphene in the thermolyzed asphalt reaction. 2012 , 22, 5723 | 21 |
| 1376 | Pyrolysis-assisted graphene exfoliation from graphite particles deposited on photoresist pillars. 2012 , | |
| 1375 | Analysis of an Ultrathin Graphite-Based Compact Heat Exchanger. 2012 , 33, 947-956 | 9 |
| 1374 | Effect of process parameters on the effective DC conductivity of GNP thick films. 2012, | 2 |
| 1373 | Transport measurements of heat dissipation in supported monolayer graphene. 2012, | |
| 1372 | Nitrogen-doped graphene stabilized gold nanoparticles for aerobic selective oxidation of benzylic alcohols. 2012 , 2, 12438 | 70 |
| 1371 | Arrays of vertically aligned tubular-structured graphene for flexible field emitters. 2012, 22, 11277 | 17 |
| 1370 | Thermal conduction in transparent carbon nanotube films. 2012, | |
| 1369 | Tunable bands in biased multilayer epitaxial graphene. 2012 , 4, 2962-7 | 17 |
| 1368 | Three-dimensional nano-foam of few-layer graphene grown by CVD for DSSC. 2012 , 14, 7938-43 | 98 |
| 1367 | Thermal control in graphene nanoribbons: thermal valve, thermal switch and thermal amplifier. 2012 , 4, 5217-20 | 18 |
| 1366 | | |
| <u> </u> | Advances in Graphene for Adsorption of Heavy Metals in Wastewater. 2012 , 550-553, 2121-2124 | 4 |
| 1365 | | 37 |
| | Sub-surface nucleation of graphene precursors near a Ni(111) step-edge. 2012 , 48, 7937-9 Comparing the effects of dispersed Stone-Thrower-Wales defects and double vacancies on the | |
| 1365 | Sub-surface nucleation of graphene precursors near a Ni(111) step-edge. 2012 , 48, 7937-9 Comparing the effects of dispersed Stone-Thrower-Wales defects and double vacancies on the | 37 |

| 1361 | Electrical conductivity of coppergraphene composite films synthesized by electrochemical deposition with exfoliated graphene platelets. 2012 , 30, 03D109 | 49 |
|------|--|-----|
| 1360 | Rapid microwave-assisted synthesis of Mn3O4graphene nanocomposite and its lithium storage properties. 2012 , 22, 3600 | 168 |
| 1359 | Intensive Edge Effects of Nanographenes in Molecular Adsorptions. 2012 , 3, 511-6 | 31 |
| 1358 | Graphene arrested in laponite-water colloidal glass. 2012 , 28, 4009-15 | 29 |
| 1357 | Interaction of Nucleobases with Wrinkled Graphene Surface: Dispersion Corrected DFT and AFM Studies. 2012 , 116, 4374-4379 | 76 |
| 1356 | Enhancing the efficiency of polymerase chain reaction using graphene nanoflakes. 2012 , 23, 455106 | 76 |
| 1355 | Controlling the surface chemistry of graphite by engineered self-assembled peptides. 2012 , 28, 8589-93 | 26 |
| 1354 | High-performance graphene-titania platform for detection of phosphopeptides in cancer cells. 2012 , 84, 6693-700 | 63 |
| 1353 | The Effects of Radial Compression on Thermal Conductivity of Carbon and Boron Nitride Nanotubes. 2012 , 2012, 1-4 | 1 |
| 1352 | Intersubunit Electron Transfer (IET) in Quantum Dots/Graphene Complex: What Features Does IET Endow the Complex with?. 2012 , 116, 15833-15838 | 25 |
| 1351 | Stacking faults and partial dislocations in graphene. 2012 , 92, 2004-2021 | 17 |
| 1350 | Direct experimental evidence of metal-mediated etching of suspended graphene. 2012 , 6, 4063-71 | 134 |
| 1349 | Nonlinear photoluminescence imaging of isotropic and liquid crystalline dispersions of graphene oxide. 2012 , 6, 8060-6 | 34 |
| 1348 | Graphene-assisted critically-coupled optical ring modulator. 2012 , 20, 23144-55 | 58 |
| 1347 | Acoustic phonon lifetimes and thermal transport in free-standing and strained graphene. <i>Nano Letters</i> , 2012 , 12, 2673-8 | 154 |
| 1346 | Ecological approach to graphene oxide reinforced poly (methyl methacrylate) nanocomposites. 2012 , 4, 3596-601 | 67 |
| 1345 | How Graphene Layers Depend on Drying Methods of Graphene Oxide. 2012 , 554-556, 597-600 | 3 |
| 1344 | Preparation and Characterization of Graphene by the Oxidation Reduction Method. 2012 , 554-556, 624-627 | 4 |

| 1343 | Transition metal surface passivation induced graphene edge reconstruction. 2012, 134, 6204-9 | 110 |
|------|---|------|
| 1342 | Investigation of tensile response and thermal conductivity of boron-nitride nanosheets using molecular dynamics simulations. 2012 , 44, 1846-1852 | 100 |
| 1341 | Thermoelectric properties of gated graphene ribbons in the ballistic regime. 2012 , 52, 221-233 | 4 |
| 1340 | Thermal transport in graphene. 2012 , 152, 1321-1330 | 142 |
| 1339 | Thermal properties of graphene and multilayer graphene: Applications in thermal interface materials. 2012 , 152, 1331-1340 | 578 |
| 1338 | Molecular dynamics study on the thermal conductivity and mechanical properties of boron doped graphene. 2012 , 152, 1503-1507 | 75 |
| 1337 | Unexpected large thermal rectification in asymmetric grain boundary of graphene. 2012 , 152, 1807-1810 | 45 |
| 1336 | In situ synthesis and characterization of conductive polypyrrole/graphene composites with improved solubility and conductivity. 2012 , 162, 682-687 | 45 |
| 1335 | One-step chemical vapor synthesis of Ni/graphene nanocomposites with excellent electromagnetic and electrocatalytic properties. 2012 , 162, 968-973 | 68 |
| 1334 | Electrochemical detection of dopamine in the presence of ascorbic acid using PVP/graphene modified electrodes. 2012 , 97, 557-62 | 115 |
| 1333 | The production of nitrogen-doped graphene from mixed amine plus ethanol flames. 2012 , 520, 6850-6855 | 32 |
| 1332 | Buried graphene electrodes on GaN-based ultra-violet light-emitting diodes. 2012 , 101, 031108 | 25 |
| 1331 | Doping of adsorbed graphene from defects and impurities in SiO2 substrates. 2012 , 86, | 38 |
| 1330 | Graphene oxide: preparation, functionalization, and electrochemical applications. 2012 , 112, 6027-53 | 2515 |
| 1329 | Epitaxial graphene nanoribbon array fabrication using BCP-assisted nanolithography. 2012 , 6, 6786-92 | 62 |
| 1328 | Polymer/carbon nanocomposites for enhanced thermal transport properties transpondent nanotubes versus graphene sheets as nanoscale fillers. 2012 , 22, 17133 | 69 |
| 1327 | Raman spectroscopy of boron-doped single-layer graphene. 2012 , 6, 6293-300 | 209 |
| 1326 | Atomistic study on the strength of symmetric tilt grain boundaries in graphene. 2012 , 100, 211912 | 37 |

| 1325 | Thermal transport in graphene supported on copper. 2012 , 112, 043502 | 71 |
|------|--|-----|
| 1324 | Three-dimensional porous graphene-based composite materials: electrochemical synthesis and application. 2012 , 22, 20968 | 187 |
| 1323 | Effect of chemical modification of graphene on mechanical, electrical, and thermal properties of polyimide/graphene nanocomposites. 2012 , 4, 4623-30 | 152 |
| 1322 | Two-dimensional carbon-coated graphene/metal oxide hybrids for enhanced lithium storage. 2012 , 6, 8349-56 | 378 |
| 1321 | Emerging methods for producing graphene oxide composites in coatings with multifunctional properties. 2012 , 22, 21355 | 8 |
| 1320 | Photoluminescence of boron nitride nanosheets exfoliated by ball milling. 2012 , 100, 261108 | 73 |
| 1319 | Electromechanical actuator with controllable motion, fast response rate, and high-frequency resonance based on graphene and polydiacetylene. 2012 , 6, 4508-19 | 125 |
| 1318 | Temperature evolution of infrared- and Raman-active phonons in graphite. 2012 , 86, | 31 |
| 1317 | In situ synthesis of magnetically recyclable graphene-supported Pd@Co coreEhell nanoparticles as efficient catalysts for hydrolytic dehydrogenation of ammonia borane. 2012 , 22, 12468 | 136 |
| 1316 | Enhanced Cathodic Electrogenerated Chemiluminescence of Luminol at a Graphene Modified Electrode in Neutral Solution. 2012 , 159, H692-H696 | 16 |
| 1315 | Facile synthesis of TiO2/graphene composites for selective enrichment of phosphopeptides. 2012 , 4, 1577-80 | 67 |
| 1314 | Graphene-based solid-phase extraction combined with flame atomic absorption spectrometry for a sensitive determination of trace amounts of lead in environmental water and vegetable samples. 2012 , 716, 112-8 | 209 |
| 1313 | Optical and structural properties of ZnO nanorods grown on graphene oxide and reduced graphene oxide film by hydrothermal method. 2012 , 258, 3109-3114 | 57 |
| 1312 | Scanning transmission X-ray microscopy, X-ray photoelectron spectroscopy, and cyclic voltammetry study on the enhanced visible photocatalytic mechanism of carbon IIiO2 nanohybrids. 2012 , 258, 3846-3853 | 23 |
| 1311 | Comparison study of PE epitaxy on carbon nanotubes and graphene oxide and PE/graphene oxide as amphiphilic molecular structure for solvent separation. 2012 , 258, 4614-4623 | 16 |
| 1310 | Growth of graphene-like thin films at low temperature by dual-frequency capacitively coupled plasma. 2012 , 258, 7751-7754 | 4 |
| 1309 | Preparation of Ni-reduced graphene oxide nanocomposites by Pd-activated electroless deposition and their magnetic properties. 2012 , 258, 8603-8608 | 34 |
| 1308 | Influence of typical defects on thermal conductivity of graphene nanoribbons: An equilibrium molecular dynamics simulation. 2012 , 258, 9926-9931 | 37 |

| 1307 | Theoretical approaches to graphene and graphene-based materials. 2012 , 7, 180-200 | 109 |
|------|---|-----|
| 1306 | Enhanced nanoscale conduction capability of a MoO2/Graphene composite for high performance anodes in lithium ion batteries. 2012 , 216, 169-178 | 97 |
| 1305 | Synthesis, characterization and adsorption properties of superparamagnetic polystyrene/Fe3O4/graphene oxide. 2012 , 204-206, 258-263 | 33 |
| 1304 | Thickness and chirality effects on tensile behavior of few-layer graphene by molecular dynamics simulations. 2012 , 53, 298-302 | 58 |
| 1303 | High sensitive determination of theophylline based on gold nanoparticles/l-cysteine/Graphene/Nafion modified electrode. 2012 , 78, 434-439 | 29 |
| 1302 | Graphene nanomesh as highly sensitive chemiresistor gas sensor. 2012 , 84, 8171-8 | 196 |
| 1301 | Synthesis, Characterization, and Biomedical Applications of Graphene. 2012, | |
| 1300 | Band gap opening in methane intercalated graphene. 2012 , 4, 4443-6 | 16 |
| 1299 | A novel class of strain gauges based on layered percolative films of 2D materials. <i>Nano Letters</i> , 2012 , 12, 5714-8 | 324 |
| 1298 | Metal-to-Multilayer-Graphene ContactBart I: Contact Resistance Modeling. 2012 , 59, 2444-2452 | 56 |
| 1297 | Exfoliation of non-oxidized graphene flakes for scalable conductive film. <i>Nano Letters</i> , 2012 , 12, 2871-6 11.5 | 145 |
| 1296 | Tailoring the characteristics of graphite oxide nanosheets for the production of high-performance poly(vinyl alcohol) composites. 2012 , 50, 5525-5536 | 33 |
| 1295 | Dual role of glycine as a chemical functionalizer and a reducing agent in the preparation of graphene: an environmentally friendly method. 2012 , 22, 9696 | 191 |
| 1294 | Graphene: an emerging electronic material. 2012 , 24, 5782-825 | 603 |
| 1293 | Graphene-based electrodes. 2012 , 24, 5979-6004 | 756 |
| 1292 | Thermoacoustic sound generation from monolayer graphene for transparent and flexible sound sources. 2012 , 24, 6342-7 | 111 |
| 1291 | Position- and morphology-controlled ZnO nanostructures grown on graphene layers. 2012 , 24, 5565-9, 5564 | 57 |
| 1290 | Graphene Multilayer Supported Gold Nanoparticles for Efficient Electrocatalysts Toward Methanol Oxidation. 2012 , 2, 1510-1518 | 49 |

| 1289 | Dispersion of reduced graphene oxide in multiple solvents with an imidazolium-modified hexa-peri-hexabenzocoronene. 2012 , 7, 2683-9 | 5 |
|------|---|-----|
| 1288 | Covalent modification of reduced graphene oxide by means of diazonium chemistry and use as a drug-delivery system. 2012 , 18, 14708-16 | 64 |
| 1287 | Poly(9,9'-diheylfluorene carbazole) functionalized with reduced graphene oxide: convenient synthesis using nitrogen-based nucleophiles and potential applications in optical limiting. 2012 , 18, 14384-91 | 26 |
| 1286 | Low-temperature solid-state microwave reduction of graphene oxide for transparent electrically conductive coatings on flexible polydimethylsiloxane (PDMS). 2012 , 13, 3700-6 | 17 |
| 1285 | Synthesis and applications of graphene-based TiO(2) photocatalysts. 2012 , 5, 1868-82 | 200 |
| 1284 | Microstructural and microwave shielding characteristics of water-soluble polypyrrolepolyvinyl alcoholgraphite oxide corehell nanocomposites. 2012 , 33, 1534-1540 | 11 |
| 1283 | Novel conjugated polymer/graphene/platinum composite for enhancing electrocatalytic oxidation of methanol. 2012 , 33, 1759-1763 | |
| 1282 | Anomalous heat conduction and anomalous diffusion in low dimensional nanoscale systems. 2012 , 85, 1 | 93 |
| 1281 | Carbon-modified TiO2 for photocatalysis. 2012 , 7, 235 | 20 |
| 1280 | Surfactant-free ionic liquid-based nanofluids with remarkable thermal conductivity enhancement at very low loading of graphene. 2012 , 7, 314 | 92 |
| 1279 | The production of concentrated dispersions of few-layer graphene by the direct exfoliation of graphite in organosilanes. 2012 , 7, 674 | 27 |
| 1278 | In situ synthesis of thermochemically reduced graphene oxide conducting nanocomposites. <i>Nano Letters</i> , 2012 , 12, 1789-93 | 98 |
| 1277 | Highly efficient synthesis of graphene nanocomposites. <i>Nano Letters</i> , 2012 , 12, 84-90 | 236 |
| 1276 | Facile preparation route for graphene oxide reinforced polyamide 6 composites via in situ anionic ring-opening polymerization. 2012 , 22, 24081 | 105 |
| 1275 | Circuit modelling of multilayer graphene nanoribbon (MLGNR) interconnects. 2012, | 5 |
| 1274 | . 2012, | |
| 1273 | . 2012 , 11, 777-781 | 10 |
| 1272 | Design of a Beam Reconfigurable THz Antenna With Graphene-Based Switchable High-Impedance Surface. 2012 , 11, 836-842 | 79 |

| | HRTEM of 1DSnTe@SWNT nanocomposite located on thin layers of graphite. 2012 , 248, 117-9 | | 7 |
|------------------------------|--|------|------------------------|
| 1270 | Correlated conductivity and work function changes in epitaxial graphene. 2012, 100, 092113 | | 26 |
| 1269 | Solution-processed graphene materials and composites. 2012 , 37, 1167-1175 | | 16 |
| 1268 | Multiple-bilayered RGOporphyrin films: from preparation to application in photoelectrochemical cells. 2012 , 22, 18879 | | 40 |
| 1267 | Graphene microtubings: controlled fabrication and site-specific functionalization. <i>Nano Letters</i> , 2012 , 12, 5879-84 | 11.5 | 104 |
| 1266 | Graphene-nanotube 3D networks: intriguing thermal and mechanical properties. 2012 , 22, 1435-1444 | | 101 |
| 1265 | Step like surface potential on few layered graphene oxide. 2012 , 101, 263109 | | 17 |
| 1264 | Graphene and Its Synthesis. 2012 , 415-438 | | 5 |
| 1263 | Stone Wales Defects in Graphene and Related Two-Dimensional Nanomaterials. 2012, 235-267 | | |
| 1262 | Cranhones in Supramologular Cols and in Biological Systems 2012, 220,272 | | |
| 1202 | Graphenes in Supramolecular Gels and in Biological Systems. 2012 , 339-372 | | 1 |
| 1261 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 | 11.5 | 60 |
| | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. | 11.5 | |
| 1261 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 Size, structure, and helical twist of graphene nanoribbons controlled by confinement in carbon nanotubes. 2012, 6, 3943-53 | 11.5 | 60 |
| 1261 1260 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 Size, structure, and helical twist of graphene nanoribbons controlled by confinement in carbon nanotubes. 2012, 6, 3943-53 | 11.5 | 60 |
| 1261 1260 1259 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 Size, structure, and helical twist of graphene nanoribbons controlled by confinement in carbon nanotubes. 2012, 6, 3943-53 Ultrafast hot-carrier-dominated photocurrent in graphene. 2012, 7, 114-8 | 11.5 | 60 118 312 |
| 1261 1260 1259 1258 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 Size, structure, and helical twist of graphene nanoribbons controlled by confinement in carbon nanotubes. 2012, 6, 3943-53 Ultrafast hot-carrier-dominated photocurrent in graphene. 2012, 7, 114-8 Biomimetic graphene films and their properties. 2012, 4, 4858-69 | 11.5 | 60 118 312 81 |
| 1261 1260 1259 1258 | In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. Nano Letters, 2012, 12, 5470-4 Size, structure, and helical twist of graphene nanoribbons controlled by confinement in carbon nanotubes. 2012, 6, 3943-53 Ultrafast hot-carrier-dominated photocurrent in graphene. 2012, 7, 114-8 Biomimetic graphene films and their properties. 2012, 4, 4858-69 Raman Spectroscopy for Characterization of Graphene. 2012, 191-214 | 11.5 | 60 118 312 81 |

| 1253 | Functionalization of graphene: covalent and non-covalent approaches, derivatives and applications. 2012 , 112, 6156-214 | 3041 |
|------------------------------|--|---------|
| 1252 | Rational synthesis of graphenethetal coordination polymer composite nanosheet as enhanced materials for electrochemical biosensing. 2012 , 22, 13166 | 42 |
| 1251 | Electronic properties of graphene: a perspective from scanning tunneling microscopy and magnetotransport. 2012 , 75, 056501 | 180 |
| 1250 | Thermal transport in nanostructures. 2012 , 2, 041410 | 113 |
| 1249 | Raman Spectroscopy for Characterization of Semiconducting Nanowires. 2012 , 477-506 | 3 |
| 1248 | Anomalous electron transport in back-gated field-effect transistors with TiTe2 semimetal thin-film channels. 2012 , 100, 043109 | 46 |
| 1247 | Inter-sheet-effect-inspired graphene sensors: design, fabrication and characterization. 2012 , 23, 105501 | 20 |
| 1246 | Synthesis and Characterization of Graphene Oxide/Poly (2-ethyl-2-oxazoline) Composites. 2012 , 564, 206-212 | 7 |
| 1245 | Two-dimensional phonon transport in graphene. 2012 , 24, 233203 | 274 |
| | | |
| 1244 | Introduction. 2012 , 1-52 | |
| 1244 | Introduction. 2012, 1-52 Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012, | |
| | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012 , Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. | 141 |
| 1243 | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012 , Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. 2012 , 45, 993-1000 | 141 |
| 1243 1242 1241 | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012 , Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. 2012 , 45, 993-1000 | |
| 1243 1242 1241 | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012, Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. 2012, 45, 993-1000 Graphene Transistors. 2012, 51-91 | |
| 1243 1242 1241 1240 | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012, Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. 2012, 45, 993-1000 Graphene Transistors. 2012, 51-91 Alternative State Variables for Graphene Transistors. 2012, 93-111 Enhancement of thermoelectric properties in graphene nanoribbons modulated with stub | 3 |
| 1243 1242 1241 1240 | Design and development of carbon nanotube and graphene based microbolometer for IR imaging applications. 2012, Reduced Graphene Oxide-Induced Polyethylene Crystallization in Solution and Nanocomposites. 2012, 45, 993-1000 Graphene Transistors. 2012, 51-91 Alternative State Variables for Graphene Transistors. 2012, 93-111 Enhancement of thermoelectric properties in graphene nanoribbons modulated with stub structures. 2012, 100, 073105 Device Performance of Graphene Nanoribbon Field-Effect Transistors in the Presence of Line-Edge | 3 67 |

| 1235 | Impact ignition of aluminum-teflon based energetic materials impregnated with nano-structured carbon additives. 2012 , 112, 024902 | 45 |
|------|---|-----|
| 1234 | Stabilization of graphene sheets by a structured benzene/hexafluorobenzene mixed solvent. 2012 , 134, 5018-21 | 67 |
| 1233 | RhodiumBickel nanoparticles grown on graphene as highly efficient catalyst for complete decomposition of hydrous hydrazine at room temperature for chemical hydrogen storage. 2012 , 5, 6885 | 187 |
| 1232 | Self-assembled multilayer of alkyl graphene oxide for highly selective detection of copper(II) based on anodic stripping voltammetry. 2012 , 22, 22631 | 45 |
| 1231 | Aqueous dispersion of graphene sheets stabilized by ionic liquid-based polyether. 2012 , 290, 1785-1791 | 19 |
| 1230 | Thermal conductivity of BN-C nanostructures. 2012 , 86, | 332 |
| 1229 | Preparation of oriented graphite/polymer composite sheets with high thermal conductivities by tape casting. 2012 , 27, 241-249 | 24 |
| 1228 | Properties of suspended graphene membranes. 2012 , 15, 238-245 | 84 |
| 1227 | Phononics in low-dimensional materials. 2012 , 15, 266-275 | 209 |
| 1226 | Graphene for radio frequency electronics. 2012 , 15, 328-338 | 88 |
| 1225 | One-pot, solvothermal synthesis of TiO2-graphene composite nanosheets. 2012 , 386, 198-204 | 27 |
| 1224 | Chitosan-Modified Graphene Electrodes for DNA Mutation Analysis. 2012 , 686, 69-72 | 39 |
| 1223 | Preparation and characterization of Fe3O4/graphene nanocomposite and investigation of its adsorption performance for aniline and p-chloroaniline. 2012 , 261, 504-509 | 127 |
| 1222 | Electrochemical immunosensor for the milk allergen Elactoglobulin based on electrografting of organic film on graphene modified screen-printed carbon electrodes. 2012 , 38, 308-13 | 113 |
| 1221 | The reinforcing effect of graphene nanosheets on the cryogenic mechanical properties of epoxy resins. 2012 , 72, 1581-1587 | 109 |
| 1220 | Rubber composites based on graphene nanoplatelets, expanded graphite, carbon nanotubes and their combination: A comparative study. 2012 , 72, 1961-1967 | 148 |
| 1219 | MoO2graphene nanocomposite as anode material for lithium-ion batteries. 2012 , 79, 148-153 | 120 |
| 1218 | Conductance of graphene superlattices with correlated disorder in velocity profiles. 2012 , 152, 1896-1901 | 20 |

| 1217 | Synthesis of CTAB-intercalated graphene/polypyrrole nanocomposites via in situ oxidative polymerization. 2012 , 162, 1815-1821 | 36 |
|------|---|-----|
| 1216 | A novel fluoride-selective electrode based on metalloporphyrin grafted-grapheneoxide. 2012 , 101, 128-34 | 13 |
| 1215 | Developing accelerometer based on graphene nanoribbon resonators. 2012 , 376, 3248-3255 | 21 |
| 1214 | Thermal conductivity of defective graphene. 2012 , 376, 3668-3672 | 78 |
| 1213 | Fabrication of multilayer films from regenerated cellulose and graphene oxide through layer-by-layer assembly. 2012 , 22, 341-346 | 29 |
| 1212 | Polymeric nanocomposites with graphene sheets [Materials and device for superior thermal transport properties. 2012 , 53, 3910-3916 | 39 |
| 1211 | A novel intumescent flame retardant-functionalized graphene: Nanocomposite synthesis, characterization, and flammability properties. 2012 , 135, 938-947 | 103 |
| 1210 | Solvent exfoliated graphene for reinforcement of PMMA composites prepared by in situ polymerization. 2012 , 136, 43-50 | 45 |
| 1209 | Facile synthesis of graphene by pyrolysis of poly(methyl methacrylate) on nickel particles in the confined microzones. 2012 , 47, 4082-4088 | 18 |
| 1208 | Facile synthesis of Pt nanocrystals/graphene composite with excellent methanol electro-oxidation performance. 2012 , 47, 4311-4315 | 13 |
| 1207 | Nanomechanics of free form and water submerged single layer graphene sheet under axial tension by using molecular dynamics simulation. 2012 , 556, 420-428 | 42 |
| 1206 | Workfunction-tunable, N-doped reduced graphene transparent electrodes for high-performance polymer light-emitting diodes. 2012 , 6, 159-67 | 275 |
| 1205 | Synthesis of WO3@Graphene composite for enhanced photocatalytic oxygen evolution from water. 2012 , 2, 1356-1363 | 194 |
| 1204 | RECENT ADVANCES IN GRAPHENE-BASED NANOMATERIALS FOR BIOMEDICAL APPLICATIONS. 2012 , 02, 1230001 | 34 |
| 1203 | Graphene oxide reduced and modified by soft nanoparticles and its catalysis of the Knoevenagel condensation. 2012 , 22, 4772 | 115 |
| 1202 | Phonon limited transport in graphene nanoribbon field effect transistors using full three dimensional quantum mechanical simulation. 2012 , 112, 094505 | 22 |
| 1201 | Impressive Fatigue Life and Fracture Toughness Improvements in Graphene Oxide/Epoxy Composites. 2012 , 45, 238-245 | 383 |
| 1200 | A molecular dynamics study of the thermal conductivity of graphene nanoribbons containing dispersed Stone Thrower Wales defects. 2012 , 50, 4887-4893 | 132 |

| 1199 | Strain dependence of the heat transport properties of graphene nanoribbons. 2012 , 23, 495702 | 18 |
|------|---|-----|
| 1198 | Highly tunable charge transport in layer-by-layer assembled graphene transistors. 2012 , 6, 2432-40 | 77 |
| 1197 | Water-soluble graphene sheets with large optical limiting response via non-covalent functionalization with polyacetylenes. 2012 , 22, 22624 | 31 |
| 1196 | High-throughput, direct exfoliation of graphite to graphene via a cooperation of supercritical CO2 and pyrene-polymers. 2012 , 2, 10632 | 46 |
| 1195 | Organic-free suspension of large-area graphene. 2012 , 101, 033104 | 8 |
| 1194 | Quasiparticle band gaps of boron nitride nanoribbons. 2012 , 85, | 10 |
| 1193 | Electrical characterization of graphene synthesized by chemical vapor deposition using Ni substrate. 2012 , 23, 015701 | 16 |
| 1192 | In situ growth of FeNi alloy nanoflowers on reduced graphene oxide nanosheets and their magnetic properties. 2012 , 14, 1432-1438 | 30 |
| 1191 | Reduced graphene oxide coated thin aluminum film as an optoacoustic transmitter for high pressure and high frequency ultrasound generation. 2012 , 101, 241909 | 31 |
| 1190 | Thermal conductivity of composites with hybrid carbon nanotubes and graphene nanoplatelets. 2012 , 101, 211903 | 52 |
| 1189 | Graphene/poly(vinylidene fluoride) composites with high dielectric constant and low percolation threshold. 2012 , 23, 365702 | 164 |
| 1188 | Ultrathin SnS2 Nanoparticles on Graphene Nanosheets: Synthesis, Characterization, and Li-Ion Storage Applications. 2012 , 116, 12475-12481 | 123 |
| 1187 | A systematic study of atmospheric pressure chemical vapor deposition growth of large-area monolayer graphene. 2012 , 22, 1498-1503 | 66 |
| 1186 | Photo-induced charge separation across the graphene-TiO2 interface is faster than energy losses: a time-domain ab initio analysis. 2012 , 134, 14238-48 | 206 |
| 1185 | Heat Wave Driven by Nanoscale Mechanical Impact between C60 and Graphene. 2012, 2, 23-27 | 8 |
| 1184 | Controlling vertical alignment of phthalocyanine nanofibers on transparent graphene-coated ITO electrodes for organic field emitters. 2012 , 22, 7837 | 9 |
| 1183 | General route to graphene with liquid-like behavior by non-covalent modification. 2012, 8, 9214 | 81 |
| 1182 | Nitrogen-doped graphene and its iron-based composite as efficient electrocatalysts for oxygen reduction reaction. 2012 , 6, 9541-50 | 578 |

| 1181 | Simulation of collisions between buckyballs and graphene sheets. 2012 , 3, 14-22 | | 9 |
|------|---|---|-----|
| 1180 | Porous graphene-based materials by thermolytic cracking. 2012 , 22, 1396-1402 | | 48 |
| 1179 | Analysis of flavonoids by graphene-based surface-assisted laser desorption/ionization time-of-flight mass spectrometry. 2012 , 137, 5809-16 | | 39 |
| 1178 | Facile synthesis of laminate-structured graphene sheetHe3O4 nanocomposites with superior high reversible specific capacity and cyclic stability for lithium-ion batteries. 2012 , 2, 10680 | | 49 |
| 1177 | Les promesses du graphtie. 2012 , 100, 101-107 | | |
| 1176 | Heat Conduction in Anisotropic Solids. 2012 , 614-650 | | 1 |
| 1175 | Kapitza conductance of symmetric tilt grain boundaries in graphene. 2012 , 111, 053529 | | 60 |
| 1174 | Phonon conductivity in graphene. 2012 , 112, 013517 | | 31 |
| 1173 | Characterizations of photoconductivity of graphene oxide thin films. 2012 , 2, 022104 | | 9 |
| 1172 | Comparative Study of Single-, Few-, and Multilayered Graphene toward Enzyme Conjugation and Electrochemical Response. 2012 , 116, 6556-6559 | | 86 |
| 1171 | Modeling the thermal conductivity of graphene nanoplatelets reinforced composites. 2012 , 100, 36001 | | 15 |
| 1170 | Raman Spectroscopy for Nanomaterials Characterization. 2012 , | | 73 |
| 1169 | Functionalization of graphene by tetraphenylethylene using nitrene chemistry. 2012 , 2, 7042 | | 25 |
| 1168 | Thermal transport in three-dimensional foam architectures of few-layer graphene and ultrathin graphite. <i>Nano Letters</i> , 2012 , 12, 2959-64 | 5 | 285 |
| 1167 | Measurements of mechanical properties and number of layers of graphene from nano-indentation. 2012 , 24, 1-5 | | 123 |
| 1166 | Laser-induced etching of few-layer graphene synthesized by Rapid-Chemical Vapour Deposition on Cu thin films. 2012 , 1, 52 | | 8 |
| 1165 | Unique synthesis of graphene-based materials for clean energy and biological sensing applications. 2012 , 57, 3000-3009 | | 18 |
| 1164 | Photothermal self-oscillation and laser cooling of graphene optomechanical systems. <i>Nano Letters</i> , 2012 , 12, 4681-6 | 5 | 125 |

| 1163 | Reduction of spectral phonon relaxation times from suspended to supported graphene. 2012 , 100, 193101 | 130 |
|------|--|-----|
| 1162 | Monolayer graphene growth using additional etching process in atmospheric pressure chemical vapor deposition. 2012 , 50, 5203-5209 | 42 |
| 1161 | Nanoscale electro-optic modulators based on graphene-slot waveguides. 2012 , 29, 1490 | 187 |
| 1160 | One-step graphene coating of heteroepitaxial GaN films. 2012 , 23, 435603 | 28 |
| 1159 | Inkjet-Printed Reduced Graphene Oxide/Poly(Vinyl Alcohol) Composite Electrodes for Flexible Transparent Organic Field-Effect Transistors. 2012 , 116, 7520-7525 | 85 |
| 1158 | Inkjet printing of graphene thin films for wireless sensing applications. 2012, | 1 |
| 1157 | Preparation and Properties of PEDOT/PSS Conductive Polymer Blended with Graphene/PVDF. 2012 , 608-609, 1318-1326 | 2 |
| 1156 | Preparation and characterization of pH- and temperature-responsive hydrogels with surface-functionalized graphene oxide as the crosslinker. 2012 , 8, 3139 | 62 |
| 1155 | Reduced graphene oxidepolyaniline hybrid: Preparation, characterization and its applications for ammonia gas sensing. 2012 , 22, 22488 | 272 |
| 1154 | Graphite nanoplatelets and Caenorhabditis elegans: insights from an in vivo model. <i>Nano Letters</i> , 2012 , 12, 2740-4 | 130 |
| 1153 | Single-layer graphene sound-emitting devices: experiments and modeling. 2012 , 4, 2272-7 | 76 |
| 1152 | Synthesis of Fe3O4 and Pt nanoparticles on reduced graphene oxide and their use as a recyclable catalyst. 2012 , 4, 2478-83 | 124 |
| 1151 | First-Principles Study of Lithium Adsorption and Diffusion on Graphene with Point Defects. 2012 , 116, 21780-21787 | 219 |
| 1150 | Synthesis of nitrogen-doped MnO/graphene nanosheets hybrid material for lithium ion batteries. 2012 , 4, 658-64 | 311 |
| 1149 | How to achieve maximum charge carrier loading on heteroatom-substituted graphene nanoribbon edges: density functional theory study. 2012 , 22, 13751 | 21 |
| 1148 | Carbon isotope doping induced interfacial thermal resistance and thermal rectification in graphene. 2012 , 100, 101901 | 73 |
| 1147 | Few-atomic-layered boron carbonitride nanosheets prepared by chemical vapor deposition. 2012 , 4, 120-3 | 54 |
| 1146 | Thermal properties of the hybrid graphene-metal nano-micro-composites: Applications in thermal interface materials. 2012 , 100, 073113 | 297 |

| 1145 | Thermal transport in four-terminal graphene nano-junctions. 2012, 407, 4333-4337 | | 2 |
|------------------------------|---|------|--------------|
| 1144 | Cyanobacterium metallothionein decorated graphene oxide nanosheets for highly selective adsorption of ultra-trace cadmium. 2012 , 22, 21909 | | 130 |
| 1143 | Design of electrical conductive composites: tuning the morphology to improve the electrical properties of graphene filled immiscible polymer blends. 2012 , 4, 5281-6 | | 173 |
| 1142 | Dimension Dependence of Negative Differential Thermal Resistance in Graphene Nanoribbons. 2012 , 116, 13810-13815 | | 23 |
| 1141 | A graphene-based electrochemical competitive immunosensor for the sensitive detection of okadaic acid in shellfish. 2012 , 4, 7593-9 | | 64 |
| 1140 | Formation Process of Pt Subnano-Clusters on Graphene Nanosheets. 2012 , 116, 22947-22953 | | 41 |
| 1139 | Highly efficient polymer light-emitting diodes using graphene oxide as a hole transport layer. 2012 , 6, 2984-91 | | 113 |
| 1138 | Engineering enhanced thermoelectric properties in zigzag graphene nanoribbons. 2012 , 111, 054501 | | 71 |
| 1137 | Tuning thermal conductivity of bilayer graphene by inter-layer sp3 bonding: A molecular dynamics study. 2012 , 101, 053115 | | 54 |
| | | | |
| 1136 | Manipulating thermal conductance at metal-graphene contacts via chemical functionalization. <i>Nano Letters</i> , 2012 , 12, 590-5 | 11.5 | 191 |
| 1136 1135 | | 11.5 | 191 |
| 1135 | Letters, 2012 , 12, 590-5 | 11.5 | |
| 1135 | Letters, 2012, 12, 590-5 Tunable band gap in gold intercalated graphene. 2012, 14, 15991-4 | 11.5 | 3 |
| 1135 | Letters, 2012, 12, 590-5 Tunable band gap in gold intercalated graphene. 2012, 14, 15991-4 Lattice thermal conductivity of graphene with conventionally isotopic defects. 2012, 24, 415401 | 11.5 | 3 |
| 1135 1134 1133 | Tunable band gap in gold intercalated graphene. 2012, 14, 15991-4 Lattice thermal conductivity of graphene with conventionally isotopic defects. 2012, 24, 415401 Thermal Conductivity of Graphene Nanoribbons: Effect of the Edges and Ribbon Width. 2012, 134, | 11.5 | 3 18 3 |
| 1135 1134 1133 1132 | Tunable band gap in gold intercalated graphene. 2012, 14, 15991-4 Lattice thermal conductivity of graphene with conventionally isotopic defects. 2012, 24, 415401 Thermal Conductivity of Graphene Nanoribbons: Effect of the Edges and Ribbon Width. 2012, 134, Adsorption Behaviors of Graphene and Graphene-related Materials. 2012, 435-467 | 11.5 | 3 18 3 |
| 1135 1134 1133 1132 | Letters, 2012, 12, 590-5 Tunable band gap in gold intercalated graphene. 2012, 14, 15991-4 Lattice thermal conductivity of graphene with conventionally isotopic defects. 2012, 24, 415401 Thermal Conductivity of Graphene Nanoribbons: Effect of the Edges and Ribbon Width. 2012, 134, Adsorption Behaviors of Graphene and Graphene-related Materials. 2012, 435-467 Graphene fillers for ultra-efficient thermal interface materials. 2012, | 11.5 | 3 18 3 |

| 1127 | Controllable selective exfoliation of high-quality graphene nanosheets and nanodots by ionic liquid assisted grinding. 2012 , 48, 1877-9 | 111 |
|------|--|-----|
| 1126 | Inkjet-printed graphene-based wireless gas sensor modules. 2012 , | 22 |
| 1125 | Tunable shrink induced graphene composites for chemical sensors and microfluidics. 2012, | 3 |
| 1124 | Simple fabrication of glucose biosensor based on Graphene-Nafion composite by amperometric detections. 2012 , | 3 |
| 1123 | Rapid Access to High-Resolution Thermal/Fluid Component Modeling. 2012, | 1 |
| 1122 | Graphene/Semiconductor Nanocomposites: Preparation and Application for Photocatalytic Hydrogen Evolution. 2012 , | 4 |
| 1121 | RF transmission properties of graphene monolayers with width variation. 2012 , 6, 19-21 | 15 |
| 1120 | Push B ull archetype of reduced graphene oxide functionalized with polyfluorene for nonvolatile rewritable memory. 2012 , 50, 378-387 | 67 |
| 1119 | Graphene as a nanocarrier for tamoxifen induces apoptosis in transformed cancer cell lines of different origins. 2012 , 8, 131-43 | 54 |
| 1118 | Flexible field emission from thermally welded chemically doped graphene thin films. 2012, 8, 272-80 | 28 |
| 1117 | Crystallization, rheological behavior and mechanical properties of poly(vinylidene fluoride) composites containing graphitic fillers: a comparative study. 2012 , 61, 1031-1040 | 13 |
| 1116 | Preparation of polyacrylonitrile/graphene oxide by in situ polymerization. 2012, 61, 1394-1399 | 37 |
| 1115 | Modification of graphene/graphene oxide with polymer brushes using controlled/living radical polymerization. 2012 , 50, 2981-2992 | 82 |
| 1114 | Investigation of the thermal-transport properties for silicon nanofilm covered with graphene via nonequilibrium molecular dynamics. 2012 , 249, 1728-1734 | 5 |
| 1113 | Temperature dependence of the Raman spectra of Bi2Te3 and Bi0.5Sb1.5Te3 thermoelectric films. 2012 , 6, 268-270 | 23 |
| 1112 | Extraordinary physical properties of functionalized graphene. 2012 , 8, 2138-51 | 153 |
| 1111 | Advancement in multifunctional nanoparticles for the effective treatment of cancer. 2012, 9, 367-81 | 73 |
| 1110 | Nanoscale and edge effect on electronic properties of graphene. 2012 , 152, 1420-1430 | 53 |

| 1109 | Controlling the shapes and assemblages of graphene. 2012 , 109, 7951-2 | | 6 |
|------|---|-----|------|
| 1108 | Graphene enhances the specificity of the polymerase chain reaction. 2012 , 8, 2011-5 | | 45 |
| 1107 | Review on Recent Progress in Nitrogen-Doped Graphene: Synthesis, Characterization, and Its Potential Applications. 2012 , 2, 781-794 | | 2727 |
| 1106 | Decontamination of bisphenol A from aqueous solution by graphene adsorption. 2012 , 28, 8418-25 | | 635 |
| 1105 | Study of electromagnetic enhancement for surface enhanced Raman spectroscopy of SiC graphene. 2012 , 100, 191601 | | 18 |
| 1104 | Graphene-based composites. 2012 , 41, 666-86 | | 3116 |
| 1103 | Thermal conductivity of isotopically modified graphene. 2012 , 11, 203-7 | | 698 |
| 1102 | Synthesis of high quality monolayer graphene at reduced temperature on hydrogen-enriched evaporated copper (111) films. 2012 , 6, 2319-25 | | 143 |
| 1101 | GrapheneIhorganic nanocomposites. 2012 , 2, 64-98 | | 507 |
| 1100 | Facile fabrication of TiO2-graphene composite with enhanced photovoltaic and photocatalytic properties by electrospinning. 2012 , 4, 581-5 | | 225 |
| 1099 | Electrorheology of graphene oxide. 2012 , 4, 2267-72 | | 100 |
| 1098 | Patterned Partially Hydrogenated Graphene (C4H) and Its One-Dimensional Analogues: A Computational Study. 2012 , 116, 4526-4534 | | 37 |
| 1097 | Direct nanoscale imaging of ballistic and diffusive thermal transport in graphene nanostructures. Nano Letters, 2012 , 12, 2906-11 | 1.5 | 70 |
| 1096 | Carbon-based nanostructured materials and their composites as supercapacitor electrodes. 2012 , 22, 767-784 | | 579 |
| 1095 | A theoretical analysis of the surface dependent binding, peeling and folding of graphene on single crystal copper. 2012 , 50, 3055-3063 | | 43 |
| 1094 | Nonlinear phonon transport and ballistic thermal rectification in asymmetric graphene-based three terminal junctions. 2012 , 100, 183110 | | 37 |
| 1093 | Remote Joule heating by a carbon nanotube. 2012 , 7, 316-9 | | 69 |
| 1092 | Large photocurrents in single layer graphene thin films: effects of diffusion and drift. 2012 , 23, 265203 | | 16 |

| 1091 | Atomic layer deposition of dielectrics on graphene using reversibly physisorbed ozone. 2012 , 6, 2722-30 | 98 |
|------|--|-----|
| 1090 | Grafting of Polyester onto Graphene for Electrically and Thermally Conductive Composites. 2012 , 45, 3444-3451 | 168 |
| 1089 | Polysaccharide Nanocomposites Reinforced with Graphene Oxide and Keratin-Grafted Graphene Oxide. 2012 , 51, 3619-3629 | 86 |
| 1088 | Significant enhancement of blue emission and electrical conductivity of N-doped graphene. 2012 , 22, 17992 | 159 |
| 1087 | The adsorption of phosphate by graphene from aqueous solution. 2012 , 2, 5234 | 160 |
| 1086 | Advances in Thermal Conductivity. 2012 , 42, 179-209 | 183 |
| 1085 | A Facile and Template-Free Hydrothermal Synthesis of Mn3O4 Nanorods on Graphene Sheets for Supercapacitor Electrodes with Long Cycle Stability. 2012 , 24, 1158-1164 | 661 |
| 1084 | Fabrication of Graphene Nanomesh and Improved Chemical Enhancement for Raman Spectroscopy. 2012 , 116, 15741-15746 | 62 |
| 1083 | Quantum-chemical calculations on the stability and mobility of vacancies in graphene. 2012 , 86, 1088-1090 | 3 |
| 1082 | Thermal transport in grain boundary of graphene by non-equilibrium Green function approach. 2012 , 101, 043112 | 44 |
| 1081 | Application of Graphene as a Sorbent for Simultaneous Preconcentration and Determination of Trace Amounts of Cobalt and Nickel in Environmental Water and Vegetable Samples. 2012 , 59, 1468-1477 | 26 |
| 1080 | Raman spectroscopy of nonstacked graphene flakes produced by plasma microjet deposition. 2012 , 43, 884-888 | 13 |
| 1079 | Towards Rationally Designed Graphene-Based Materials and Devices. 2012 , 213, 1091-1100 | 19 |
| 1078 | The Fabrication, Properties, and Uses of Graphene/Polymer Composites. 2012 , 213, 1060-1077 | 454 |
| 1077 | Fabrication of transparent, tough, and conductive shape-memory polyurethane films by incorporating a small amount of high-quality graphene. 2012 , 33, 628-34 | 65 |
| 1076 | Mechanical, thermal, and rheological properties of graphene-based polypropylene nanocomposites prepared by melt mixing. 2012 , 33, 733-744 | 225 |
| 1075 | Structural Characterization of Graphene Nanosheets for Miniaturization of Potentiometric Urea Lipid Film Based Biosensors. 2012 , 24, 1285-1295 | 44 |
| 1074 | Critical wavefunctions in disordered graphene. 2012 , 24, 255305 | 3 |

| 1073 | Large-scale production of two-dimensional nanosheets. 2012 , 22, 13494 | 306 |
|------|--|------|
| 1072 | Tunable thermal transport and thermal rectification in strained graphene nanoribbons. 2012, 85, | 43 |
| 1071 | An overview of the applications of graphene-based materials in supercapacitors. 2012 , 8, 1805-34 | 1082 |
| 1070 | Layer-by-layer self-assembled multilayer films composed of graphene/polyaniline bilayers: high-energy electrode materials for supercapacitors. 2012 , 28, 12637-46 | 126 |
| 1069 | Emulsifier-Free Graphene Dispersions with High Graphene Content for Printed Electronics and Freestanding Graphene Films. 2012 , 22, 1136-1144 | 138 |
| 1068 | A Facile Approach to Chemically Modified Graphene and its Polymer Nanocomposites. 2012 , 22, 2735-2743 | 211 |
| 1067 | Highly Concentrated and Conductive Reduced Graphene Oxide Nanosheets by Monovalent Cation Interaction: Toward Printed Electronics. 2012 , 22, 3307-3314 | 59 |
| 1066 | Facile method for rGO field effect transistor: selective adsorption of rGO on SAM-treated gold electrode by electrostatic attraction. 2012 , 24, 2299-303 | 24 |
| 1065 | Metal-filled carbon nanotubes as a novel class of photothermal nanomaterials. 2012 , 24, 2453-8 | 49 |
| 1064 | Re-ordering chaotic carbon: origins and application of textured carbon. 2012 , 24, 4112-23 | 24 |
| 1063 | Engineering the electronic structure of graphene. 2012 , 24, 4055-69 | 99 |
| 1062 | Bio-inspired nacre-like composite films based on graphene with superior mechanical, electrical, and biocompatible properties. 2012 , 24, 3426-31 | 336 |
| 1061 | Low temperature casting of graphene with high compressive strength. 2012 , 24, 5124-9, 5123 | 179 |
| 1060 | Functional nanoporous graphene foams with controlled pore sizes. 2012 , 24, 4419-23 | 316 |
| 1059 | Facile Synthesis of Nitrogen-Doped Graphene via Pyrolysis of Graphene Oxide and Urea, and its Electrocatalytic Activity toward the Oxygen-Reduction Reaction. 2012 , 2, 884-888 | 725 |
| 1058 | Polymer/Boron Nitride Nanocomposite Materials for Superior Thermal Transport Performance. 2012 , 124, 6604-6607 | 38 |
| 1057 | Polymer/boron nitride nanocomposite materials for superior thermal transport performance. 2012 , 51, 6498-501 | 296 |
| 1056 | One-pot in situ ball milling preparation of polymer/graphene nanocomposites. 2012 , 125, 3899-3903 | 29 |

(2012-2012)

| 1055 | Interfacial enhancement of maleated polypropylene/silica composites using graphene oxide. 2012 , 125, E348 | 30 |
|------|--|-----|
| 1054 | Physical wrapping of reduced graphene oxide sheets by polyethylene wax and its modification on the mechanical properties of polyethylene. 2012 , 126, 1546-1555 | 12 |
| 1053 | Sonochemical synthesis and characterization of amine-modified graphene/conducting polymer nanocomposites. 2012 , 128, n/a-n/a | 2 |
| 1052 | Self-unfolded graphene sheets. 2012 , 18, 7055-9 | 25 |
| 1051 | Facile Fabrication of a Graphene-based Electrochemical Biosensor for Glucose Detection. 2012 , 30, 1163-1167 | 16 |
| 1050 | Effect of Vacancy Defects on the Young's Modulus and Fracture Strength of Graphene: A Molecular Dynamics Study. 2012 , 30, 1399-1404 | 25 |
| 1049 | Nanocarbon composites and hybrids in sustainability: a review. 2012 , 5, 456-78 | 144 |
| 1048 | One-step functionalization of graphene with cyclopentadienyl-capped macromolecules via DielsAlder ElickEhemistry. 2012 , 22, 7929 | 45 |
| 1047 | Industrial graphene metrology. 2012 , 4, 3807-19 | 19 |
| 1046 | Chemistry, physics and biology of graphene-based nanomaterials: new horizons for sensing, imaging and medicine. 2012 , 22, 14313 | 105 |
| 1045 | Graphene and its derivatives: switching ON and OFF. 2012 , 41, 4688-707 | 219 |
| 1044 | Near room-temperature synthesis of transfer-free graphene films. 2012 , 3, 645 | 179 |
| 1043 | Fundamental Structural, Electronic, and Chemical Properties of Carbon Nanostructures: Graphene, Fullerenes, Carbon Nanotubes, and Their Derivatives. 2012 , 793-867 | 15 |
| 1042 | Thermal transport in graphyne nanoribbons. 2012 , 85, | 95 |
| 1041 | Preparation of graphene-encapsulated mesoporous metal oxides and their application as anode materials for lithium-ion batteries. 2012 , 22, 16318 | 85 |
| 1040 | Synthesis of network reduced graphene oxide in polystyrene matrix by a two-step reduction method for superior conductivity of the composite. 2012 , 22, 17254 | 197 |
| 1039 | Preparation and characterization of poly(L-lactide) graphene composites using the in situring-opening polymerization of PLLA with graphene as the initiator. 2012 , 22, 10805 | 71 |
| 1038 | Intrinsic characteristics of transmission line of graphenes at microwave frequencies. 2012 , 100, 223102 | 27 |

| 1037 | Nanoscale interface control for high-performance Li-ion batteries. 2012 , 8, 91-105 | 44 |
|------|--|------------|
| 1036 | A coupled quantum/continuum mechanics study of graphene fracture. 2012 , 173, 163-173 | 74 |
| 1035 | Molecular Dynamics Study of Thermal Rectification in Graphene Nanoribbons. 2012 , 33, 986-991 | 8 |
| 1034 | Study of thermal properties of graphene-based structures using the force constant method. 2012 , 11, 14-21 | 13 |
| 1033 | Thermoelectric performance of disordered and nanostructured graphene ribbons using Green function method. 2012 , 11, 67-77 | 28 |
| 1032 | A brief review of graphene-based material synthesis and its application in environmental pollution management. 2012 , 57, 1223-1234 | 134 |
| 1031 | Thermal Conductivity of Copper-Graphene Composite Films Synthesized by Electrochemical Deposition with Exfoliated Graphene Platelets. 2012 , 43, 316-324 | 113 |
| 1030 | A functionalized graphene oxide-iron oxide nanocomposite for magnetically targeted drug delivery, photothermal therapy, and magnetic resonance imaging. 2012 , 5, 199-212 | 494 |
| 1029 | RETRACTED ARTICLE: Application of graphene as a sorbent for the preconcentration and determination of trace amounts of lead in water samples prior to flame atomic absorption spectrometry. 2012 , 177, 497-497 | 1 |
| 1028 | Chemical vapor sensing properties of graphene based on geometrical evaluation. 2012 , 12, 1017-1022 | 39 |
| 1027 | Direct formation of graphene layers on top of SiC during the carburization of Si substrate. 2012 , 12, 1088-109 | 1 7 |
| 1026 | The effect of downstream plasma treatments on graphene surfaces. 2012 , 50, 395-403 | 86 |
| 1025 | Influence of chemisorption on the thermal conductivity of graphene nanoribbons. 2012 , 50, 421-428 | 43 |
| 1024 | Improved electrical conductivity of a non-covalently dispersed graphenellarbon nanotube film by chemical p-type doping. 2012 , 50, 943-951 | 34 |
| 1023 | Graphene nanoplatelet paper as a light-weight composite with excellent electrical and thermal conductivity and good gas barrier properties. 2012 , 50, 1135-1145 | 219 |
| 1022 | The reduction of graphene oxide. 2012 , 50, 3210-3228 | 3551 |
| 1021 | Thermal conductivity of MWCNT/epoxy composites: The effects of length, alignment and functionalization. 2012 , 50, 2083-2090 | 126 |
| 1020 | One pot preparation of reduced graphene oxide (RGO) or Au (Ag) nanoparticle-RGO hybrids using chitosan as a reducing and stabilizing agent and their use in methanol electrooxidation. 2012 , 50, 2513-2523 | 271 |

| 1019 | Graphene defect polarity dynamics. 2012 , 50, 2870-2876 | 20 |
|------|--|-----|
| 1018 | Improving the field emission of graphene by depositing zinc oxide nanorods on its surface. 2012 , 50, 3622-3626 | 50 |
| 1017 | The mechanical responses of tilted and non-tilted grain boundaries in graphene. 2012 , 50, 3708-3716 | 71 |
| 1016 | Regenerated cellulose/graphene nanocomposite films prepared in DMAC/LiCl solution. 2012, 88, 26-30 | 128 |
| 1015 | Determination of structural and mechanical properties of multilayer graphene added silicon nitride-based composites. 2012 , 38, 211-216 | 114 |
| 1014 | Experimentally measured thermal transport properties of aluminum?polytetrafluoroethylene nanocomposites with graphene and carbon nanotube additives. 2012 , 55, 817-824 | 52 |
| 1013 | Triphenylamine-functionalized graphene decorated with Pt nanoparticles and its application in photocatalytic hydrogen production. 2012 , 37, 4880-4888 | 68 |
| 1012 | Enhanced photocatalytic degradation of methylene blue under visible irradiation on graphene@TiO2 dyade structure. 2012 , 111-112, 303-308 | 333 |
| 1011 | Preparation and swelling properties of graphene oxide/poly(acrylic acid-co-acrylamide) super-absorbent hydrogel nanocomposites. 2012 , 401, 97-106 | 237 |
| 1010 | Adsorption of methylene blue from aqueous solution by graphene. 2012 , 90, 197-203 | 530 |
| 1009 | Texture, transport and mechanical properties of graphite nanoplatelet/silicone composites produced by three roll mill. 2012 , 72, 467-475 | 42 |
| 1008 | Covalent functionalization of graphene with organosilane and its use as a reinforcement in epoxy composites. 2012 , 72, 737-743 | 295 |
| 1007 | Thermal boundary resistance at the graphene@raphene interface estimated by molecular dynamics simulations. 2012 , 527, 47-50 | 67 |
| 1006 | Mechanical reinforcement and thermal conductivity in expanded graphene nanoplatelets reinforced epoxy composites. 2012 , 531, 6-10 | 285 |
| 1005 | POSS vapor grafting on graphene oxide film. 2012 , 537, 84-87 | 18 |
| 1004 | Mass-production of highly-crystalline few-layer graphene sheets by arc discharge in various H2Ihert gas mixtures. 2012 , 538, 72-76 | 90 |
| 1003 | Decorating graphene sheets with gold nanoparticles for the detection of sequence-specific DNA. 2012 , 71, 239-245 | 63 |
| 1002 | In situ growth of Si nanowires on graphene sheets for Li-ion storage. 2012 , 74, 176-181 | 31 |

| 1001 | Preparation and electrochemical activities of iridium-decorated graphene as the electrode for all-vanadium redox flow batteries. 2012 , 77, 232-236 | 81 |
|------|--|-----|
| 1000 | An investigation of the electrical transport properties of graphene-oxide thin films. 2012 , 132, 29-33 | 169 |
| 999 | Effect of processing technique on the transport and mechanical properties of graphite nanoplatelet/rubbery epoxy composites for thermal interface applications. 2012 , 132, 63-73 | 36 |
| 998 | Synthesis of hemin functionalized graphene and its application as a counter electrode in dye-sensitized solar cells. 2012 , 132, 858-864 | 42 |
| 997 | Reduced graphene oxideflickel oxide composites with high electrochemical capacitive performance. 2012 , 133, 363-368 | 71 |
| 996 | Unzipped multiwalled carbon nanotubes-incorporated poly(l-lactide) nanocomposites with enhanced interface and hydrolytic degradation. 2012 , 134, 1059-1066 | 25 |
| 995 | Equilibrium, kinetic and thermodynamic studies on the adsorption of phenol onto graphene. 2012 , 47, 1898-1904 | 157 |
| 994 | Low-cost, facile synthesis of carbon nanosheets by thermal pyrolysis of polystyrene composite. 2012 , 66, 60-63 | 14 |
| 993 | A facile method to immobilize ZnxCd1⊠S nanocrystals on graphene nanoribbons. 2012 , 67, 169-172 | 14 |
| 992 | Reinforcement with graphene nanosheets in aluminum matrix composites. 2012 , 66, 594-597 | 607 |
| 991 | Supercapacitors based on low-temperature partially exfoliated and reduced graphite oxide. 2012 , 212, 105-110 | 58 |
| 990 | The effects of functionalized graphene nanosheets on the thermal and mechanical properties of epoxy composites for anisotropic conductive adhesives (ACAs). 2012 , 52, 595-602 | 83 |
| 989 | Facile method to prepare Pd/graphenepolyaniline nanocomposite and used as new electrode material for electrochemical sensing. 2012 , 353-354, 80-86 | 46 |
| 988 | Experimental evidence for EfrosBhklovskii variable range hopping in hydrogenated graphene. 2012 , 152, 905-908 | 40 |
| 987 | First-principle study of energy band structure of armchair graphene nanoribbons. 2012 , 152, 1089-1093 | 25 |
| 986 | Preparation of few-layer and single-layer graphene by exfoliation of expandable graphite in supercritical N,N-dimethylformamide. 2012 , 63, 99-104 | 82 |
| 985 | Controlling memory effects of three-layer structured hybrid bistable devices based on graphene sheets sandwiched between two laminated polymer layers. 2012 , 13, 178-183 | 47 |
| 984 | Thermal Management in 3-D Integrated Circuits with Graphene Heat Spreaders. 2012 , 25, 311-316 | 12 |

(2012-2012)

| 983 | Bending and flexural phonon scattering: Generalized Dirac equation for an electron moving in curved graphene. 2012 , 407, 2002-2008 | 18 |
|-----|---|------|
| 982 | Nitrogen doping and vacancy effects on the mechanical properties of graphene: A molecular dynamics study. 2012 , 376, 1146-1153 | 71 |
| 981 | Thermoelectric properties of hexagonal graphene quantum dots. 2012, 376, 1154-1158 | 14 |
| 980 | Tuning the electronic transport properties for a trigonal graphene flake. 2012 , 376, 1839-1844 | 12 |
| 979 | Mechanical deformation and fracture mode of polycrystalline graphene: Atomistic simulations. 2012 , 376, 1942-1947 | 25 |
| 978 | Chemical functionalization of graphene and its applications. 2012 , 57, 1061-1105 | 1351 |
| 977 | High-performance nanocomposites based on polyetherketones. 2012 , 57, 1106-1190 | 187 |
| 976 | Direct electrochemistry of hemoglobin based on chitosanlibnic liquidflerrocene/graphene composite film. 2012 , 47, 1171-1177 | 26 |
| 975 | Atomistic Prediction of Nanomaterials: Introduction to Molecular Dynamics Simulation and a Case Study of Graphene Wettability 2012 , 6, 8-13 | 3 |
| 974 | A Numerical Study of Line-Edge Roughness Scattering in Graphene Nanoribbons. 2012 , 59, 433-440 | 53 |
| 973 | Synthesis, Modeling, and Experimental Characterization of Graphite Nanoplatelet-Based Composites for EMC Applications. 2012 , 54, 17-27 | 60 |
| 972 | Photocatalytic performance of titania nanospheres deposited on graphene in coumarin oxidation reaction. 2012 , 30, 32-38 | 20 |
| 971 | Composites of graphene and other nanocarbons with organogelators assembled through supramolecular interactions. 2012 , 18, 2890-901 | 51 |
| 970 | Photocatalytic synthesis of pure and water-dispersible graphene monosheets. 2012 , 18, 2762-7 | 27 |
| 969 | Role of hydrocarbon radicals CH(x) ($x=1, 2, 3$) in graphene growth: a theoretical perspective. 2012 , 13, 774-9 | 13 |
| 968 | Remote Plasma-Assisted CVD Growth of Carbon Nanotubes in an Optimised Rapid Thermal Reactor. 2012 , 18, 17-21 | 2 |
| 967 | Towards ultrathick battery electrodes: aligned carbon nanotube-enabled architecture. 2012 , 24, 533-7 | 241 |
| 966 | Facile fabrication of light, flexible and multifunctional graphene fibers. 2012 , 24, 1856-61 | 464 |
| | | |

| 965 | Localized insulator-conductor transformation of graphene oxide thin films via focused laser beam irradiation. 2012 , 106, 523-531 | 27 |
|-----|---|-----|
| 964 | Significant positive magnetoresistance of graphene/carbon composite films prepared by electrospraying and subsequent heat treatment. 2012 , 106, 785-789 | 1 |
| 963 | Carbon black/graphite nanoplatelet/rubbery epoxy hybrid composites for thermal interface applications. 2012 , 47, 1059-1070 | 19 |
| 962 | Thermal and electrical conductivity of Al(OH)3 covered graphene oxide nanosheet/epoxy composites. 2012 , 47, 1418-1426 | 40 |
| 961 | Synthesis and photocatalytic performance of TiO2 nanospheres@raphene nanocomposite under visible and UV light irradiation. 2012 , 47, 3185-3190 | 50 |
| 960 | Recent progress and challenges in graphene nanoribbon synthesis. 2013 , 14, 47-54 | 180 |
| 959 | Lubrication of poly(vinyl alcohol) chain orientation by carbon nano-chips in composite tapes. 2013 , 127, 2977-2982 | 32 |
| 958 | Preparation and characterization of melt-blended graphene nanosheetspoly(vinylidene fluoride) nanocomposites with enhanced properties. 2013 , 127, 4697-4707 | 50 |
| 957 | Numerical investigation on thermal conductivity and thermal rectification in graphene through nitrogen-doping engineering. 2013 , 112, 759-765 | 23 |
| 956 | Viscoelastic properties of graphene/PVA nanocomposite. 2013, | 2 |
| 955 | Ultrasensitive electrochemiluminescence immunosensor based on nanoporous gold electrode and Ru-AuNPs/graphene as signal labels. 2013 , 181, 50-56 | 23 |
| 954 | Solution-based fabrication of a grapheneInO nanocomposite. 2013, 66, 481-487 | 8 |
| 953 | Understanding the growth mechanism of stabilizer-free Ag nanoparticles on reduced graphene oxide: the role of CO. 2013 , 15, 1 | 7 |
| 952 | Graphene reinforced alumina nano-composites. 2013 , 64, 359-369 | 221 |
| 951 | Physical Properties of Graphene Nanoribbons: Insights from First-Principles Studies. 2013, 51-77 | 1 |
| 950 | A disposable immunosensor for Enterobacter sakazakii based on an electrochemically reduced graphene oxide-modified electrode. 2013 , 434, 218-20 | 21 |
| 949 | Graphene-crosslinked polyurethane block copolymer nanocomposites with enhanced mechanical, electrical, and shape memory properties. 2013 , 3, 13796 | 55 |
| 948 | Synthesis of blue light-emitting graphene quantum dots and their application in flexible nonvolatile memory. 2013 , 14, 1447-1451 | 47 |

| 947 | Biocompatibility of pristine graphene for neuronal interface. 2013 , 11, 575-83 | 53 |
|-----|--|-----|
| 946 | Electronic thermal conductivity and thermopower of armchair graphene nanoribbons. 2013 , 52, 201-208 | 27 |
| 945 | Self-Initiated Free Radical Grafting of Styrene Homo- and Copolymers onto Functionalized Graphene. 2013 , 46, 5488-5496 | 66 |
| 944 | Synthesis and characterization of the in situ bulk polymerization of PMMA containing graphene sheets using microwave irradiation. 2013 , 18, 3152-67 | 69 |
| 943 | Synthesis of polydopamine-coated graphenepolymer nanocomposites via RAFT polymerization. 2013 , 51, 3941-3949 | 38 |
| 942 | Facile preparation of poly(Etaprolactone)/Fe3O4@graphene oxide superparamagnetic nanocomposites. 2013 , 70, 2359-2371 | 21 |
| 941 | Two-dimensional carbon allotropes from graphene to graphyne. 2013 , 1, 3677 | 91 |
| 940 | Tailored Parallel Graphene Stripes in Plastic Film with Conductive Anisotropy by Shear-Induced Self-Assembly. 2013 , 4, 43-7 | 58 |
| 939 | First-Principles Study on Migration and Coalescence of Point Defects in Monolayer Graphene. 2013 , 117, 17066-17072 | 28 |
| 938 | A single-stage functionalization and exfoliation method for the production of graphene in water: stepwise construction of 2D-nanostructured composites with iron oxide nanoparticles. 2013 , 5, 9073-80 | 14 |
| 937 | One-step chemical reduction of graphene oxide with oligothiophene for improved electrocatalytic oxygen reduction reactions. 2013 , 61, 164-172 | 66 |
| 936 | Designed CVD growth of graphene via process engineering. 2013 , 46, 2263-74 | 152 |
| 935 | Electrochemical Deposition of Highly Dispersed Palladium Nanoparticles on Nafion-Graphene Film in Presence of Ferrous Ions for Ethanol Electrooxidation. 2013 , 13, 364-370 | 14 |
| 934 | Novel organicIhorganic flame retardants containing exfoliated graphene: preparation and their performance on the flame retardancy of epoxy resins. 2013 , 1, 6822 | 136 |
| 933 | Radius-voltage relation of graphene bubbles controlled by gate voltage. 2013 , 103, 053112 | 6 |
| 932 | Absence and presence of Dirac electrons in silicene on substrates. 2013 , 87, | 183 |
| 931 | Enhancement of thermal and mechanical properties of flexible graphene oxide/carbon nanotube hybrid films though direct covalent bonding. 2013 , 48, 7011-7021 | 13 |
| 930 | Boron-doped graphene and boron-doped diamond electrodes: detection of biomarkers and resistance to fouling. 2013 , 138, 4885-91 | 53 |

| 929 | Study on flow boiling critical heat flux enhancement of graphene oxide/water nanofluid. 2013, 65, 348-356 | 68 |
|-----|--|-----|
| 928 | Atomic structure and electronic properties of folded graphene nanoribbons: A first-principles study. 2013 , 113, 173506 | 13 |
| 927 | Temperature in nonequilibrium states and non-Fourier heat conduction. 2013, 87, | 22 |
| 926 | Entropy flux and anomalous axial heat transport at the nanoscale. 2013 , 87, | 23 |
| 925 | In situ precipitation of Te nanoparticles in p-type BiSbTe and the effect on thermoelectric performance. 2013 , 5, 3071-4 | 30 |
| 924 | Grain boundaries in graphene grown by chemical vapor deposition. 2013 , 15, 035024 | 103 |
| 923 | Electronic and thermoelectric properties of assembled graphene nanoribbons with elastic strain and structural dislocation. 2013 , 102, 143101 | 25 |
| 922 | Graphene Coupled with Nanocrystals: Opportunities and Challenges for Energy and Sensing Applications. 2013 , 4, 2441-2454 | 72 |
| 921 | A new function of graphene oxide emerges: inactivating phytopathogenic bacterium Xanthomonas oryzae pv. Oryzae. 2013 , 15, 1 | 91 |
| 920 | Reduced Graphene Oxide: Control of Water Miscibility, Conductivity, and Defects by Photocatalysis. 2013 , 5, 3060-3067 | 21 |
| 919 | Applications of Nanomaterials in Sensors and Diagnostics. 2013, | 24 |
| 918 | The conductive network made up by the reduced graphene nanosheet/polyaniline/polyvinyl chloride. 2013 , 128, 3870-3875 | 30 |
| 917 | Ultra-fast synthesis of graphene by melt spinning. 2013 , 61, 299-304 | 2 |
| 916 | Self-assembled foam-like graphene networks formed through nucleate boiling. 2013 , 3, 1396 | 65 |
| 915 | Controllable pore size of three dimensional self-assembled foam-like graphene and its wettability. 2013 , 64, 27-34 | 25 |
| 914 | Interaction between graphene layers and the mechanisms of graphite's superlubricity and self-retraction. 2013 , 5, 6736-41 | 42 |
| 913 | Controlled synthesis of porous Fe3O4-decorated graphene with extraordinary electromagnetic wave absorption properties. 2013 , 61, 5829-5834 | 159 |
| 912 | Analytical study of the ballistic transport of ladder-like graphene nanoribbons within the tight-binding approach. 2013 , 59, 106-114 | 10 |

(2013-2013)

| 911 | Preparation and properties of 3-aminopropyltriethoxysilane functionalized graphene/polyurethane nanocomposite coatings. 2013 , 291, 2765-2773 | 28 |
|-----|---|-----|
| 910 | Surperhydrophobic polyurethane foam modified by graphene oxide. 2013 , 130, 3530-3536 | 56 |
| 909 | Graphene-based nanoprobes and a prototype optical biosensing platform. 2013 , 50, 251-5 | 33 |
| 908 | Effect of graphene aerogel on thermal behavior of phase change materials for thermal management. 2013 , 113, 195-200 | 196 |
| 907 | First-principles study of the thermoelectric properties of strained graphene nanoribbons. 2013 , 1, 10762 | 20 |
| 906 | In Situ Raman Studies of Electrically Reduced Graphene Oxide and Its Field-Emission Properties. 2013 , 117, 5485-5491 | 38 |
| 905 | Skin effect analysis for carbon nano material based interconnects at high frequency. 2013, | 6 |
| 904 | Direct production of highly conductive graphene with a low oxygen content by a microwave-assisted solvothermal method. 2013 , 232, 346-355 | 38 |
| 903 | Flexible Supercapacitors (Development of Bendable Carbon Architectures. 2013, 101-141 | 4 |
| 902 | Significant thickness dependence of the thermal resistance between few-layer graphenes. 2013 , 103, 061906 | 35 |
| 901 | Effect of the thickness of Bi2Se3 sheets on the morphologies of Bi2Se3InS nanocomposites and improved photoresponsive characteristic. 2013 , 24, 4197-4203 | 4 |
| 900 | Graphene synthesis by thermal chemical vapor deposition using solid precursor. 2013 , 24, 2151-2155 | 12 |
| 899 | Structure control of ultra-large graphene oxide sheets by the Langmuir B lodgett method. 2013 , 3, 4680 | 31 |
| 898 | Electrical transport measured in atomic carbon chains. <i>Nano Letters</i> , 2013 , 13, 3487-93 | 169 |
| 897 | Thermal chemical vapor deposition grown graphene heat spreader for thermal management of hot spots. 2013 , 61, 342-348 | 72 |
| 896 | UV irradiation synthesis of an Augraphene nanocomposite with enhanced electrochemical sensing properties. 2013 , 1, 9189 | 123 |
| 895 | Synthesis and characterization of covalently-grafted graphenepolyaniline nanocomposites and its use in a supercapacitor. 2013 , 231, 397-405 | 80 |
| 894 | Effects of a grain boundary loop on the thermal conductivity of graphene: A molecular dynamics study. 2013 , 79, 132-135 | 25 |

| 893 | A bottom-up route to enhance thermoelectric figures of merit in graphene nanoribbons. 2013 , 3, 1228 | 101 |
|-----|--|-----|
| 892 | Flexible and large-area sound-emitting device using reduced graphene oxide. 2013, | 3 |
| 891 | Synthesis and photocatalytic property of Fe3O4@TiO2 core/shell nanoparticles supported by reduced graphene oxide sheets. 2013 , 578, 501-506 | 57 |
| 890 | Phonons in twisted bilayer graphene. 2013 , 88, | 119 |
| 889 | Numerical analysis of shape transition in graphene nanoribbons. 2013 , 75, 69-72 | 5 |
| 888 | Graphene bridged enzyme electrodes for glucose biosensing application. 2013 , 138, 2567-75 | 34 |
| 887 | Metallicity retained by covalent functionalization of graphene with phenyl groups. 2013, 5, 7537-43 | 7 |
| 886 | Electrospun composite nanofiber yarns containing oriented graphene nanoribbons. 2013 , 5, 6225-31 | 74 |
| 885 | Hydrophilic polydopamine-coated graphene for metal ion immobilization as a novel immobilized metal ion affinity chromatography platform for phosphoproteome analysis. 2013 , 85, 8483-7 | 135 |
| 884 | Synergistic effects of functionalized graphene and functionalized multi-walled carbon nanotubes on the electrical and mechanical properties of poly(ether sulfone) composites. 2013 , 49, 3125-3134 | 76 |
| 883 | Microstructure and anisotropic mechanical properties of graphene nanoplatelet toughened biphasic calcium phosphate composite. 2013 , 39, 7627-7634 | 61 |
| 882 | Photocatalytic TiO2RGO/nylon-6 spider-wave-like nano-nets via electrospinning and hydrothermal treatment. 2013 , 429, 225-234 | 94 |
| 881 | Combustion synthesis of graphene and ultracapacitor performance. 2013 , 36, 667-672 | 6 |
| 880 | Electrochemical-reduction-assisted assembly of a polyoxometalate/graphene nanocomposite and its enhanced lithium-storage performance. 2013 , 19, 10895-902 | 79 |
| 879 | . 2013 , 101, 1670-1688 | 25 |
| 878 | Market Uptake Potential of Graphene as a Disruptive Material. 2013 , 101, 1793-1800 | 12 |
| 877 | First principles study on the hydrophilic and conductive graphene doped with Al atoms. 2013, 15, 10859-65 | 38 |
| 876 | Miscibility of graphene and poly(methyl methacrylate) (PMMA): molecular dynamics and dissipative particle dynamics simulations. 2013 , 3, 8298 | 16 |

(2013-2013)

| 875 | Electrochemical immunosensor based on graphenepolyaniline composites and carboxylated graphene oxide for estradiol detection. 2013 , 188, 99-105 | | 64 |
|-----|--|-----|-----|
| 874 | Raman spectroscopic studies of pulsed laser-induced defect evolution in graphene. 2013 , 44, 798-802 | | 10 |
| 873 | Controlled, defect-guided, metal-nanoparticle incorporation onto MoS2 via chemical and microwave routes: electrical, thermal, and structural properties. <i>Nano Letters</i> , 2013 , 13, 4434-41 | 1.5 | 252 |
| 872 | Arsenic removal from contaminated water using three-dimensional graphene-carbon nanotube-iron oxide nanostructures. 2013 , 47, 10510-7 | | 65 |
| 871 | Advances in semiconductor nanowire growth on graphene. 2013 , 7, 713-726 | | 47 |
| 870 | Soluble reduced graphene oxide sheets grafted with polypyridylruthenium-derivatized polystyrene brushes as light harvesting antenna for photovoltaic applications. 2013 , 7, 7992-8002 | | 35 |
| 869 | Number of Conducting Channels for Armchair and Zig-Zag Graphene Nanoribbon Interconnects. 2013 , 12, 817-823 | | 23 |
| 868 | One-step electrodeposition synthesis of silver-nanoparticle-decorated graphene on indium-tin-oxide for enzymeless hydrogen peroxide detection. 2013 , 62, 405-412 | | 109 |
| 867 | Strength and fracture behavior of graphene grain boundaries: effects of temperature, inflection, and symmetry from molecular dynamics. 2013 , 15, 11794-9 | | 33 |
| 866 | Mosaic-like monolayer of graphene oxide sheets decorated with tetrabutylammonium ions. 2013 , 7, 8082-8 | | 27 |
| 865 | Interrelated shape memory and Payne effect in polyurethane/graphene oxide nanocomposites. 2013 , 3, 16068 | | 79 |
| 864 | Preparation of highly stacked graphene papers via site-selective functionalization of graphene oxide. 2013 , 1, 12893 | | 43 |
| 863 | From graphite to graphene: direct liquid-phase exfoliation of graphite to produce single- and few-layered pristine graphene. 2013 , 1, 10592 | | 222 |
| 862 | Mechanisms of Graphene Chemical Vapor Deposition (CVD) Growth. 2013, 255-290 | | 3 |
| 861 | Electronic Transport in Graphitic Carbon Nanoribbons. 2013 , 319-346 | | 2 |
| 860 | Enhanced photoluminescence from zinc oxide by plasmonic resonance of reduced graphene oxide. 2013 , 114, 074903 | | 17 |
| 859 | Graphene-based thin film supercapacitor with graphene oxide as dielectric spacer. 2013 , 103, 063108 | | 22 |
| 858 | Role of graphene waviness on the thermal conductivity of graphene composites. 2013 , 111, 221-225 | | 50 |
| | | | |

| 857 | Fabrication of Spirocyclic Phosphazene Epoxy-Based Nanocomposites with Graphene via Exfoliation of Graphite Platelets and Thermal Curing for Enhancement of Mechanical and Conductive Properties. 2013 , 52, 10160-10171 | 80 |
|-----|---|-----|
| 856 | Bifunctional composite catalysts using Co3O4 nanofibers immobilized on nonoxidized graphene nanoflakes for high-capacity and long-cycle Li-O2 batteries. <i>Nano Letters</i> , 2013 , 13, 4190-7 | 306 |
| 855 | Multistimuli-responsive hydrogels of poly(2-acrylamido-2-methyl-1-propanesulfonic acid) containing graphene. 2013 , 291, 2681-2687 | 11 |
| 854 | Band gap and correlated phenomena in bilayer and trilayer graphene. 2013, | 3 |
| 853 | Solution-based production of graphene nano-platelets containing extremely low amounts of heteroatoms. 2013 , 25, 1-5 | 9 |
| 852 | Clean transfer of graphene and its effect on contact resistance. 2013 , 103, 103104 | 45 |
| 851 | Synergistic effect of multi walled carbon nanotubes and reduced graphene oxides in natural rubber for sensing application. 2013 , 9, 10343 | 129 |
| 850 | Photocatalytic reduction of GO/ZnO to achieve GNRs for optoelectronic applications. 2013 , 46, 385101 | 12 |
| 849 | Effects of X-ray irradiation on the structure and field electron emission properties of vertically aligned few-layer graphene. 2013 , 304, 49-56 | 11 |
| 848 | Chemical reduced graphene oxide/AuPtPd nanocomposite for enhanced electrocatalytic ability. 2013 , 94, 179-182 | 11 |
| 847 | Strengthened magnetic epoxy nanocomposites with protruding nanoparticles on the graphene nanosheets. 2013 , 54, 3594-3604 | 136 |
| 846 | A 3D numerical study of heat transfer in a single-phase micro-channel heat sink using graphene, aluminum and silicon as substrates. 2013 , 48, 108-115 | 16 |
| 845 | Fe2.25W0.75O4/reduced graphene oxide nanocomposites for novel bifunctional photocatalyst: One-pot synthesis, magnetically recyclable and enhanced photocatalytic property. 2013 , 205, 171-176 | 15 |
| 844 | A novel impedimetric biosensor based on graphene oxide/gold nanoplatform for detection of DNA arrays. 2013 , 188, 1201-1211 | 112 |
| 843 | Simultaneous determination of hydroquinone and catechol based on glassy carbon electrode modified with gold-graphene nanocomposite. 2013 , 180, 461-468 | 63 |
| 842 | Molecular vibrational spectroscopy characterization of epoxy graphene oxide from density functional calculations. 2013 , 19, 1429-34 | 6 |
| 841 | Amphiphilic poly(N-vinyl pyrrolidone) grafted graphene by reversible addition and fragmentation polymerization and the reinforcement of poly(vinyl acetate) films. 2013 , 1, 10863 | 41 |
| 840 | Stability and Hydrogen Affinity of Graphite-Supported Wires of Cu, Ag, Au, Ni, Pd, and Pt. 2013 , 117, 19239-19244 | 9 |

(2013-2013)

| 839 | Layer thinning and etching of mechanically exfoliated MoS2 nanosheets by thermal annealing in air. 2013 , 9, 3314-9 | 179 |
|-----|--|------|
| 838 | Graphene for energy solutions and its industrialization. 2013 , 5, 10108-26 | 71 |
| 837 | Phonon energy inversion in graphene during transient thermal transport. 2013 , 377, 721-726 | 28 |
| 836 | Experimental evidence for direct insulator-quantum Hall transition in multi-layer graphene. 2013 , 8, 214 | 9 |
| 835 | Cytotoxicity and variant cellular internalization behavior of water-soluble sulfonated nanographene sheets in liver cancer cells. 2013 , 8, 208 | 13 |
| 834 | Facile synthesis of few-layer graphene by mild solvent thermal exfoliation of highly oriented pyrolytic graphite. 2013 , 231, 1-11 | 20 |
| 833 | Lubricating graphene with a nanometer-thick perfluoropolyether. 2013, 549, 299-305 | 10 |
| 832 | Field emission from vertical graphene sheets formed by screen-printing technique. 2013 , 94, 48-52 | 38 |
| 831 | Effect of graphene nanoplatelets (GNPs) addition on strength and ductility of magnesium-titanium alloys. 2013 , 1, 242-248 | 114 |
| 830 | In situ fabrication and characterization of cobalt ferrite nanorods/graphene composites. 2013, 86, 303-315 | 43 |
| 829 | Phonon thermal conductivity of monolayer MoS2 sheet and nanoribbons. 2013 , 103, 133113 | 145 |
| 828 | Synthesis and Electrochromic Characterization of Vanadium Pentoxide/Graphene Nanocomposite Films. 2013 , 160, H587-H590 | 22 |
| 827 | Preparation and characterization of covalently functionalized graphene using vinyl-terminated benzoxazine monomer and associated nanocomposites with low coefficient of thermal expansion. 2013 , 62, 966-973 | 25 |
| 826 | The NH3 sensing properties of gas sensors based on aniline reduced graphene oxide. 2013 , 185-186, 25-30 | 49 |
| | | |
| 825 | Enhanced response to molecular adsorption of structurally defective graphene. 2013, 31, 030602 | 5 |
| 825 | Enhanced response to molecular adsorption of structurally defective graphene. 2013 , 31, 030602 Single-edge crack growth in graphene sheets under tension. 2013 , 69, 381-388 | 5 49 |
| - | | |

| 821 | Modelling of graphene and few-layer graphene heat spreaders for hot-spot cooling. 2013, | 1 |
|-----|---|-----|
| 820 | Layer-by-layer-assembled reduced graphene oxide/gold nanoparticle hybrid double-floating-gate structure for low-voltage flexible flash memory. 2013 , 25, 872-7, 793 | 153 |
| 819 | The effect of non-covalent functionalization on the thermal conductance of graphene/organic interfaces. 2013 , 24, 165702 | 75 |
| 818 | Palladium nanoparticles supported on reduced graphene oxide: Facile synthesis and highly efficient electrocatalytic performance for methanol oxidation. 2013 , 544, 88-92 | 28 |
| 817 | Comparison of isotope effects on thermal conductivity of graphene nanoribbons and carbon nanotubes. 2013 , 103, 013111 | 60 |
| 816 | Preparation and retention mechanism study of graphene and graphene oxide bonded silica microspheres as stationary phases for high performance liquid chromatography. 2013 , 1307, 135-43 | 63 |
| 815 | Giant quasiparticle bandgap modulation in graphene nanoribbons supported on weakly interacting surfaces. 2013 , 103, 133107 | 28 |
| 814 | Quantification of Bax protein on tumor cells based on electrochemical immunoassay. 2013 , 186, 506-514 | 7 |
| 813 | Significant thermal conductivity enhancement in graphene oxide papers modified with alkaline earth metal ions. 2013 , 103, 141913 | 22 |
| 812 | Investigation of electrically induced migration of copper on graphene surfaces: Theory and experiments. 2013 , 103, 073104 | 3 |
| 811 | Recent progress in the development and properties of novel metal matrix nanocomposites reinforced with carbon nanotubes and graphene nanosheets. 2013 , 74, 281-350 | 711 |
| 810 | Recent advances in optical limiting properties of fluorinated graphene oxides. 2013, | |
| 809 | Bipolar magnetic materials for electrical manipulation of spin-polarization orientation. 2013 , 15, 15793-801 | 52 |
| 808 | The thermal stability of graphene in air investigated by Raman spectroscopy. 2013 , 44, 1018-1021 | 155 |
| 807 | Mechanism of the effects of low temperature Al2O3 passivation on graphene field effect transistors. 2013 , 53, 182-187 | 41 |
| 806 | Manipulating chiral transmission by gate geometry: switching in graphene with transmission gaps. 2013 , 7, 9808-13 | 25 |
| 805 | Aqueous preparation of polyethylene glycol/sulfonated graphene phase change composite with enhanced thermal performance. 2013 , 75, 482-487 | 56 |
| 804 | Electron Transport Properties through Graphene Oxide l Iobalt Phthalocyanine Complexes. 2013 , 117, 23664-23675 | 21 |

| 803 | Ion implantation of graphene-toward IC compatible technologies. <i>Nano Letters</i> , 2013 , 13, 4902-7 | 151 |
|-----|--|-----|
| 802 | First-principles studies on infrared properties of semiconducting graphene monoxide. 2013 , 114, 164313 | 3 |
| 801 | Experimental study of the effect of a reduced graphene oxide coating on critical heat flux enhancement. 2013 , 60, 763-771 | 35 |
| 800 | Critical Enhancement of Photothermal Effect by Integrated Nanocomposites of Gold Nanorods and Iron Oxide on Graphene Oxide. 2013 , 34, 2795-2799 | 3 |
| 799 | The structural, electronic and magnetic properties of bi-layered MoS2 with transition-metals doped in the interlayer. 2013 , 3, 12939 | 31 |
| 798 | Ultraviolet-assisted preparation of mesoporous WO3/reduced graphene oxide composites: superior interfacial contacts and enhanced photocatalysis. 2013 , 1, 15110 | 81 |
| 797 | Thermal Reduction of Graphene Oxide in Organic Solvents for Producing Colloidal Suspensions of Reduced Graphene Oxide Sheets. 2013 , 21, 901-915 | 3 |
| 796 | Structure-property relations of three-dimensional nanoporous template-based graphene foams. 2022 , 101737 | 1 |
| 795 | Conduction heat transfer switching using magnetic Fe $$$, x , $$$, 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 | 0 |
| 794 | Properties and applications of quantum dots derived from two-dimensional materials. 2022, 7, | |
| 793 | Microstructure, consolidation, electrochemical, and mechanical performance of titanium (Ti) composites reinforced by graphene nanoplatelets (GNPs) via mechanical alloying. 2022 , 126142 | 0 |
| 792 | Tough, Strong, and Conductive Graphene Fibers by Optimizing Surface Chemistry of Graphene Oxide Precursor. 2112156 | 3 |
| 791 | Nanotechnology in the Olympic Winter Games and Beyond 2022, | 0 |
| 790 | A Review on Nanocomposites with Graphene Based Fillers in Poly(ether ether ketone). 1 | O |
| 789 | Strong correlation between electrical and thermal transport properties in graphene/graphite films beyond the Wiedemann-Franz law. 2022 , | |
| 788 | Simulating a graphene-based acousto-plasmonic biosensor to eliminate the interference of surrounding medium 2022 , 30, 15721-15734 | Ο |
| 787 | Temperature- and Pressure-Dependent Phonon Dynamics Properties of Gallium Selenide Telluride. | 0 |
| 786 | Effect of vacancy defect and dopants on the sensitivity of germanene to H2CO. 2022 , 142, 115268 | 1 |

| 7 ⁸ 5 | Density Functional Theory-Based Calculations for 2D Hexagonal Lanthanide Metals. 2200057 | 0 |
|---------------------|--|---|
| 784 | Design and prediction of PIT devices through deep learning 2022 , 30, 14985-14997 | Ο |
| 783 | An Overview of Hierarchical Design of Textile-Based Sensor in Wearable Electronics. 2022, 12, 555 | 0 |
| 782 | All-optical mode switching with a graphene-buried polymer waveguide directional coupler 2022 , 47, 2414-2417 | O |
| 781 | Polymer nanocomposites based on graphite nanoplatelets (GNPs): a review on thermal-electrical conductivity, mechanical and barrier properties. 2022 , 57, 7425-7480 | 0 |
| 780 | In-situ formation of titanium carbide in copper-titanium-carbon system: A review. 2022 , 403, 117389 | O |
| 779 | Tuning temperature-dependent of thermal conductivity and heat capacity of two-dimensional GeC compared to Graphene and Germanene: Effects of magnetic field. 2022 , 638, 413921 | |
| 778 | Presentation_1.pdf. 2019 , | |
| 777 | Data_Sheet_1.PDF. 2019 , | |
| | | |
| 776 | Holey and Wrinkled Flash Graphene from Mixed Plastic Waste 2022, | 1 |
| 776 775 | Holey and Wrinkled Flash Graphene from Mixed Plastic Waste 2022, Phonon Engineering of Graphene by Structural Modifications. 2022, 25-41 | 1 |
| | | 0 |
| 775 | Phonon Engineering of Graphene by Structural Modifications. 2022 , 25-41 | |
| 775 774 | Phonon Engineering of Graphene by Structural Modifications. 2022 , 25-41 Graphene-Based Bioelectronics. 2022 , 129-145 | |
| 775 774 773 | Phonon Engineering of Graphene by Structural Modifications. 2022, 25-41 Graphene-Based Bioelectronics. 2022, 129-145 Mechanical and Electrical Properties of Cu30cr0.2zr Composites Enhanced by Ceo2/Go. | |
| 775 774 773 | Phonon Engineering of Graphene by Structural Modifications. 2022, 25-41 Graphene-Based Bioelectronics. 2022, 129-145 Mechanical and Electrical Properties of Cu30cr0.2zr Composites Enhanced by Ceo2/Go. Applications of Graphene and Graphene-Based Nanocomposite for Consumer Nanoproducts. 2022, 501-522 Effects of Mixing Methods on the Interface and Microstructure Evolution of Gnps/Ti-6al-4v Matrix | |
| 775 774 773 772 771 | Phonon Engineering of Graphene by Structural Modifications. 2022, 25-41 Graphene-Based Bioelectronics. 2022, 129-145 Mechanical and Electrical Properties of Cu30cr0.2zr Composites Enhanced by Ceo2/Go. Applications of Graphene and Graphene-Based Nanocomposite for Consumer Nanoproducts. 2022, 501-522 Effects of Mixing Methods on the Interface and Microstructure Evolution of Gnps/Ti-6al-4v Matrix Composites Fabricated by Pre-Sintering and Extrusion. Reconfigurable carrier type and photodetection of MoTe2 of various thickness by deep ultraviolet | 0 |

| 767 | Sustainable development information management of carbon nanomaterial-based sensors. 2022, 3-12 | 5 |
|-----------------|---|---|
| 766 | Simultaneous Promotion of Surface Active Sites and Electron Conductivity in Carbon by Interfacially Engineered Oxygen Transfer for Sodium Storage. | |
| 765 | Fabrication of 3D Porous Graphene@SnO2 Aerogel via In Situ Gamma Ray Irradiation Induced Self-Assembly. 2022 , 17, 59-63 | |
| 764 | DNA-Mediated Assembly of Carbon Nanomaterials 2022 , 87, e202200089 | |
| 763 | Effect of graphite nanoplatelets surface area on mechanical properties of room-temperature vulcanized silicone rubber nanocomposites. | 0 |
| 762 | Enhanced performance of supercapacitors based on rotationally stacked CVD graphene. 2022 , 131, 164302 | |
| 761 | Recent advances in graphene-based polymer composite scaffolds for bone/cartilage tissue engineering. 2022 , 103360 | 1 |
| 760 | Direct Plasma-Enhanced-Chemical-Vapor-Deposition Syntheses of Vertically Oriented Graphene Films on Functional Insulating Substrates for Wide-Range Applications. 2202026 | Ο |
| 759 | The Abnormally Excellent Figure of Merit of 14,14,18-Graphyne at Room Temperature: A Study on the Thermoelectric Characteristic of Graphyne. | О |
| 758 | A perspective on thermal stability and mechanical properties of 2D Indium Bismide from ab initio molecular dynamics 2022 , | 4 |
| 757 | Improved Nanocomposite Materials and Their Applications. | 2 |
| 756 | Graphene and its derivative reinforced tungstenBopper composites for electrical contact applications: A review. 073168442110638 | |
| 755 | A mini review on paraffin-graphene and related hybrid phase change materials for building energy applications. | |
| 754 | A review on photocatalytic hydrogen production potential from paper and pulp industry wastewater. 1 | |
| 753 | A Review on Printing of Responsive Smart and 4D Structures Using 2D Materials. 2200025 | 1 |
| 75 ² | Mechanical, optical, and thermoelectric properties of semiconducting ZnIn2X4 (X=S, Se, 2022, 105, | 1 |
| 751 | Quantum transport on honeycomb networks 2022 , 12, 6896 | 1 |
| 750 | Thermal backbone curves of nanocomposite beams reinforced with graphene platelet on elastic foundation. | O |

| 749 | Materials and device design for advanced phototherapy systems 2022, 186, 114339 | 1 |
|--------------------------|---|--------|
| 748 | Dynamic penetration behaviors of single/multi-layer graphene using nanoprojectile under hypervelocity impact 2022 , 12, 7440 | |
| 747 | Recent progress in microwave-assisted preparations of 2D materials and catalysis applications 2022 , | |
| 746 | A Review of the Synthesis, Properties, and Applications of 2D Materials. 2200031 | 9 |
| 745 | Highly in-plane anisotropy of thermal transport in suspended ternary chalcogenide Ta2NiS5. | 2 |
| 744 | Tuning the Thermal Transport of Hexagonal Boron Nitride/Reduced Graphene Oxide Heterostructures 2022 , | O |
| 743 | Ultrahigh Electron Thermal Conductivity in T-Graphene, Biphenylene, and Net-Graphene. 2200657 | 4 |
| 742 | Thermal scanning probe lithography. 2022 , 2, | 3 |
| 741 | Wettability of graphene, water contact angle, and interfacial water structure. 2022, 8, 1187-1200 | 3 |
| 740 | Enhanced Catalytic Activity of a New Nanobiocatalytic System Formed by the Adsorption of Cytochrome c on Pluronic Triblock Copolymer Stabilized MoS2 Nanosheets. | |
| | Cycocinome con readmic ribbook copolymer stabilized Mosz Nanosneets. | |
| 739 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022 , e2201046 | 1 |
| 739 738 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme | 1 |
| | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022 , e2201046 | 1 |
| 738 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022, e2201046 Synthesis of AirRGO@FeCo hollow microspheres with strong microwave absorption properties. 1 Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A | |
| 738 737 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022, e2201046 Synthesis of AirRGO@FeCo hollow microspheres with strong microwave absorption properties. 1 Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A review. 2022, 103664 Correlation between multiple chemical modification strategies on graphene or graphite and | 1 |
| 738 737 736 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022, e2201046 Synthesis of AirRGO@FeCo hollow microspheres with strong microwave absorption properties. 1 Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A review. 2022, 103664 Correlation between multiple chemical modification strategies on graphene or graphite and physical/electrical properties. 2022, 33, 100376 | 1 |
| 738 737 736 735 | Structural Design and Fabrication of Multifunctional Nanocarbon Materials for Extreme Environmental Applications 2022, e2201046 Synthesis of AirRGO@FeCo hollow microspheres with strong microwave absorption properties. 1 Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A review. 2022, 103664 Correlation between multiple chemical modification strategies on graphene or graphite and physical/electrical properties. 2022, 33, 100376 Thermoelectric rectification in graphene based Y-junction. 2022, 207242 Direct Ink Writing of Carbon-Doped Polymeric Composite Ink: A Review on Its Requirements and | 1 0 |

| 731 | Heat transfer through hydrogenated graphene superlattice nanoribbons: a computational study 2022 , 12, 7966 | О |
|-----|--|---|
| 730 | Preparation and application of graphene-based wearable sensors. | 4 |
| 729 | A review on recent advances on the mechanical and conductivity properties of epoxy nanocomposites for industrial applications. 1 | 1 |
| 728 | Graphene-reinforced nanocomposites: synthesis, micromechanics models, analysis and applications [a] review. 095440622210917 | O |
| 727 | Strong piezoelectric response in layered CuInP2S6 nanosheets for piezoelectric nanogenerators. 2022 , 107371 | 2 |
| 726 | The kinetics of crack propagation in CVD graphene film. 2022 , 126, 109056 | |
| 725 | Unveiling deoxygenation thermokinetics for controlling electrical transport and water removal from freestanding graphene oxide paper: Differential scanning calorimetry and thermomechanical analyzer study. 2022 , 126, 109081 | |
| 724 | Research progress on penta-graphene and its related materials: Properties and applications. 2022 , 44, 101501 | 5 |
| 723 | A solid-state additive manufacturing method for aluminum-graphene nanoplatelet composites. 2022 , 23, 101440 | Ο |
| 722 | Interface configuration effect on mechanical and tribological properties of three-dimension network architectural titanium alloy matrix nanocomposites. 2022 , 158, 106981 | 2 |
| 721 | Free vibration analysis of functionally graded graphene nanocomposite beams partially in contact with fluid. 2022 , 291, 115609 | 1 |
| 720 | Novel atomic-scale graphene metamaterials with broadband electromagnetic wave absorption and ultra-high elastic modulus. 2022 , 196, 146-153 | O |
| 719 | MOFs and GO-based composites as deliberated materials for the adsorption of various water contaminants. 2022 , 294, 121187 | 2 |
| 718 | Synergistic hole-doping on ultrathin MoTe2 for highly stable unipolar field-effect transistor. 2022 , 596, 153567 | O |
| 717 | Fluorescence study of the influence of centrifugation on graphene oxide dispersions in water and in tannic acid 2022 , 278, 121302 | |
| 716 | Microscopic investigation of Cu-induced crystallization of amorphous carbon at low temperatures. 2022 , 595, 153507 | |
| 715 | Study on the Electronic Structure and Optical Properties of Two-dimensional Monolayer MoSi2X4 (X=N, P, As). 2022 , 80, 510 | 2 |
| 714 | Millimeter wave phased array antenna based on highly conductive graphene-assembled film for 5G applications. 2022 , | 1 |

| 713 | MIL-101(Cr)-NH2/reduced graphene oxide composite carrier enhanced thermal conductivity and stability of shape-stabilized phase change materials for thermal energy management. 2022 , 52, 104827 | О |
|-----|---|------|
| 712 | Carbon-Based Nanocomposites: Processing, Electronic Properties, and Applications. | |
| 711 | Review of Graphene-Based Energetic Compounds. 2022 , 429-465 | |
| 710 | Synthesis of Co-ordination Energetic Graphene Oxide and Thermal Decomposition for the Combustion of Ammonium Perchlorate. 2022 , 557-571 | |
| 709 | High Throughput Nanoimaging of Thermal Conductivity and Interfacial Thermal Conductance Nano Letters, 2022 , | .5 2 |
| 708 | Recent development of modified fluorescent carbon quantum dots-based fluorescence sensors for food quality assessment. | 1 |
| 707 | Low-Temperature CVD-Grown Graphene Thin Films as Transparent Electrode for Organic Photovoltaics. 2022 , 12, 681 | 1 |
| 706 | Electrocatalysis with metal-free carbon-based catalysts. 2022 , 213-244 | |
| 705 | Tunable lattice thermal conductivity of twisted bilayer MoS2. | |
| 704 | An Updated Review on Low-Temperature Nanocomposites with a Special Focus on Thermal Management in Buildings. 2022 , 119, 1299-1325 | 1 |
| 703 | Continuous flow fabrication of green graphene oxide in aqueous hydrogen peroxide. | 1 |
| 702 | Carbon Nanomaterials-Polymer Composites in Perovskite Solar Cells: Preparation, Properties and Applications. | 2 |
| 701 | Recent Advances in Two-dimensional Material/Conducting Polymer Composites for Thermoelectric Energy Conversion. 2200107 | О |
| 700 | Viscous Solvent-Assisted Planetary Ball Milling for the Scalable Production of Large Ultrathin Two-Dimensional Materials. | 4 |
| 699 | Machine Learning Approach for Application-Tailored Nanolubricants Design. 2022, 12, 1765 | О |
| 698 | HiPIMS Obtained Carbon Nano-coatings on Copper Foil and Their Thermal Conductivity. 2022 , 128565 | O |
| 697 | All-carbon stretchable and cavity-free white lasers. 2022 , 30, 20213 | О |
| 696 | Boiling heat transfer of nanofluids on the graphene membrane: A molecular dynamics simulation. 2022 , 118708 | O |

| 695 | Effects of multi-layer graphene on the fracture toughness and wear resistance of WC-11Co cemented carbide. 1-12 | Ο |
|-----|--|---|
| 694 | Electronic and thermoelectric properties of group IVI/I van der Waals heterostructures. | |
| 693 | Recent advances in experimental and molecular dynamics study of graphene-oxide/natural rubber composites: A review. 073168442211029 | 1 |
| 692 | Copper matrix composites reinforced by three-dimensional netlike graphene towards enhanced mechanical property and wear resistance. 2022 , 32, 101187 | 1 |
| 691 | Interfacial characterization in defective graphene/PET substrate structure through traction separation models: A molecular dynamics study. 2022 , 211, 111540 | 0 |
| 690 | Extraordinary lattice thermal conductivity of gold sulfide monolayers. | |
| 689 | Effects of Different Phonon Scattering Factors on the Heat Transport Properties of Graphene Ribbons. | |
| 688 | Effects of different mixing methods on the conductivities of poly(2-ethyl aniline)/graphene and poly(2-ethyl aniline)/expanded graphite composites. 1-15 | |
| 687 | Simplified cooperative viscoplasticity theory based on overstress model for nanocomposites. | |
| 686 | Thermal transport of monolayer amorphous carbon and boron nitride. 2022 , 120, 222201 | Ο |
| 685 | Heat transfer enhancement of graphene nanofluid manufactured from graphite sheet. 2022, | 1 |
| 684 | Mechanical, Thermal and Electrical Properties of Epoxy Nanocomposites with Amine-Functionalized Reduced Graphene Oxide via Plasma Treatment. 2022 , 6, 153 | |
| 683 | Tailoring the hardness of aluminum surface reinforced with graphene and C3N nanosheets. 2022 , 109139 | |
| 682 | Smart Graphene Nanoplatelet Strain Sensor for Natural Frequency Sensing of Stainless Steel (SS304) and Human Health Monitoring. 2022 , 15, 3924 | O |
| 681 | Microstructure and Mechanical Properties of Aluminum: Graphene Composites Produced by Powder Metallurgical Method. | 0 |
| 680 | Potential application of graphene nanoplatelets as a high temperature lubricant for hot rolling. | |
| 679 | Graphene-Based Absorbents for Wastewater Treatment. 2022 , 164-180 | |
| 678 | Advanced wearable biosensors for the detection of body fluids and exhaled breath by graphene. 2022 , 189, | 7 |

| 677 | Evaluation of interface thermal transport of Cu-Graphene nanocomposite under cascade overlaps and its effects on irradiation-induced defects. 2022 , 153839 | |
|-----|--|---|
| 676 | Graphene nano-platelet (GNP)doped poly (methyl methacrylate) (PMMA) spray-coated piezoresistive-based 2D strain sensor under temperature environment on aluminium alloy 2024-T351. 2022 , 24, | O |
| 675 | Nonlocal thermal transport modeling using the thermal distributor. 2022 , 105, | |
| 674 | Localization effects in graphene nanoribbons with quasiperiodic hopping modulation. 2022, 207295 | |
| 673 | Photoelectrochemical Enhancement of Graphene@WS2 Nanosheets for Water Splitting Reaction. 2022 , 12, 1914 | О |
| 672 | Advances in Biologically Applicable Graphene-Based 2D Nanomaterials. 2022 , 23, 6253 | 1 |
| 671 | Optothermal and temperature reliant phonon dynamics probed by Raman spectroscopy. 2022, 414074 | |
| 670 | Band gap modulation of penta-BCN through different ways. 2022 , 126, 109114 | |
| 669 | Laser-Based Growth and Treatment of Graphene for Advanced Photo- and Electro-Related Device Applications. 2203164 | 1 |
| 668 | Epoxy Nanocomposites with Graphene Derivatives. 133-167 | |
| 667 | Multi-nanocomponent-assembled films with exceptional capacitance performance and electromagnetic interference shielding. | 1 |
| 666 | Two-Dimensional Nanomaterials for Solar Cell Technology. 2022 , 103-119 | O |
| 665 | Introduction to graphene-based materials and their composites. 2022, 1-47 | |
| 664 | Fabricating flexible conductive structures by printing techniques and printable conductive materials. | 4 |
| 663 | Design of Transition Metal Carbonitrides (Mcns) as Potential Anchoring and High Catalytic Performance Materials for Lithium-Sulfur Battery. | |
| 662 | Graphene-based polymer nanocomposites in biomedical applications. 2022 , 199-245 | 1 |
| 661 | Facial fabrication of few-layer functionalized graphene with sole functional group through DielsAlder reaction by ball milling. 2022 , 12, 17990-18003 | |
| 660 | Study of a Thermal Mathematical Model for Pre-Diagnosis of Photo-Mechanic Induced by Laser Based on Light Transport Equation. | |

| 659 | Cationic Stabilized Layered Graphene Oxide (Go) Membrane For´Shale Gas Wastewater Treatment: An Atomistic Insight. | |
|-----|---|---|
| 658 | Large-scale Graphene Production and Transfer for Industrial Applications. 2022 , 02, 15-25 | O |
| 657 | Effect of graphene structure, processing method, and polyethylene type on the thermal conductivity of polyethylene-graphene nanocomposites. 2022 , 433-444 | |
| 656 | Graphene-based polymer composites for flame-retardant application. 2022 , 61-89 | O |
| 655 | State-of-the-Art, Opportunities, and Challenges in Bottom-up Synthesis of Polymers with High Thermal Conductivity. | 0 |
| 654 | The role of permanent and induced electrostatic dipole moments for Schottky barriers in Janus MXY/graphene heterostructures: a first-principles study. | 1 |
| 653 | A Brief Overview on Facile Synthesis and Challenging Properties of Graphene Nanocomposite: State-of-the-art. 2022 , 34, 1603-1612 | |
| 652 | Reversible functionalization and exfoliation of graphite by a DielsAlder reaction with furfuryl amine. 2022 , 12, 17249-17256 | |
| 651 | Thermal conductivity and thermal diffusivity of fullerene-based nanofluids. 2022, 12, | 1 |
| 650 | Structural Evolution of Graphene Oxide and Its Thermal Stability During High Temperature Sintering. 2022 , 37, 342-349 | Ο |
| 649 | Electrochemical Transparency of Graphene. | 1 |
| 648 | Effects of Tearing Conditions on the Crack Propagation in a Monolayer Graphene Sheet. 2022 , 23, 6471 | 1 |
| 647 | The investigation of heat transfer enhancement by using different mixture conditions of graphene nanofluids on a downward facing surface. 2022 , | O |
| 646 | High-Quality N-Doped Graphene with Controllable Nitrogen Bonding Configurations Derived from Ionic Liquids. | |
| 645 | Superconducting Proximity Effect in d -Wave Cuprate/Graphene Heterostructures. 2100559 | О |
| 644 | Efficient Preconstruction of Three-Dimensional Graphene Networks for Thermally Conductive Polymer Composites. 2022 , 14, | 3 |
| 643 | Electrical control of FEster resonant energy transfer across single-layer graphene. 2022 , 11, 3247-3256 | |
| 642 | Tunable ion transport across graphene through tailoring grain boundaries. 2022 , 100947 | |

| 641 | In-Situ Elevated Temperature Interlaminar Shear Response and Thermal Behavior of Graphene Nanoplatelet Reinforced Kevlar/Epoxy Laminated Composites. | 1 |
|-----|---|---|
| 640 | Verification of experimental results with simulation on production of few-layer graphene by liquid-phase exfoliation utilizing sonication. 2022 , 12, | |
| 639 | 2D Material and Perovskite Heterostructure for Optoelectronic Applications. 2022 , 12, 2100 | 4 |
| 638 | System-level graphene foam speaker and the simulation of the thermo-acoustic process. 2022 , 30, 23918 | |
| 637 | A Novel Crossbeam Structure with Graphene Sensing Element for N/MEMS Mechanical Sensors. 2022 , 12, 2101 | О |
| 636 | High Thermal Conductivity 2D Materials: From Theory and Engineering to Applications. 2200409 | O |
| 635 | Preparation of Highly Stable and Electrochemically Active Three-dimensional Interconnected Graphene Frameworks from Jute Sticks. | О |
| 634 | An integrated method for massive production of graphene from bituminous coal via ultrasonication-assisted emulsion formation. 1-12 | |
| 633 | Hexagonal Boron Nitride on IIIIV Compounds: A Review of the Synthesis and Applications. 2022, 15, 4396 | О |
| 632 | NaNO3 monolayer: A stable graphenelike supersalt with strong four-phonon scattering and low lattice thermal conductivity insensitive to temperature. 2022 , 6, | 1 |
| 631 | Enhanced adiabatic shear band susceptibility in Ti composites reinforced with quasi-continuous network of graphene nanosheets. 2022 , 107055 | О |
| 630 | Graphene-based flexible dry electrodes for biosignal detection. 2022, | |
| 629 | Reduced graphene oxide films for reducing hotspot temperatures of electronic devices. 2022 , 136, 106193 | 1 |
| 628 | Reactive molecular dynamics simulation of thermo-physicochemical properties of non-covalent functionalized graphene nanofluids. 2022 , 32, 103869 | О |
| 627 | Thermal properties of quantum rings in monolayer and bilayer graphene. 2022 , 353, 114853 | 1 |
| 626 | Recent advances on graphene: Synthesis, properties and applications. 2022 , 160, 107051 | 4 |
| 625 | Graphene-based materials prepared by supercritical fluid technology and its application in energy storage. 2022 , 188, 105672 | 1 |
| 624 | Towards High-quality graphite oxide from graphite | |

| 623 | Recent progress in two-dimensional nanomaterials for cancer theranostics. 2022, 469, 214654 | 2 |
|-------------------|---|-------------|
| 622 | Layered SnSe nanoflakes with anharmonic phonon properties and memristive characteristics. 2022 , 599, 153983 | O |
| 621 | Research progress on thermal transprot of graphene-based composite thermal interface materials. 2022 , | O |
| 620 | Heat Conduction Behavior of Two-Dimensional Nanomaterials and Their Interface Regulation?. 2022 , 80, 839 | |
| 619 | Manufacturable biosensors based on graphene films. 2022 , 243-307 | |
| 618 | Boron Nitride Nanosheets: Large-Scale Exfoliation in Naoh-Licl´Solution and Their Highly Thermoconductive´Insulating´Nanocomposite Paper with Pi Via´Electrospinning-Electrospraying. | |
| 617 | Scalable Production of Electrochemically Exfoliated Graphene by an Extensible Electrochemical Reactor with Encapsulated Anode and Dual Cathodes. | |
| 616 | Large-scale production of boron nitride nanosheets-based epoxy nanocomposites with ultrahigh through-plane thermal conductivity for electronic encapsulation. 2022 , | O |
| 615 | Anti-dewetting of Cu thin film on nanostructured black Si template for continuous CVD growth of monolayer graphene. | O |
| 614 | Enhanced Electromagnetic Shielding and Thermal Conductive Properties of Polyolefin Composites with a Ti3C2Tx MXene/Graphene Framework Connected by a Hydrogen-Bonded Interface. 2022 , 16, 92 | - 4 0266 |
| | 7 7 | 54-9266 |
| 613 | Azobenzene-Based Solar Thermal Fuels: A Review. 2022 , 14, | 2 |
| 613 612 | | |
| | Azobenzene-Based Solar Thermal Fuels: A Review. 2022 , 14, Synthesis, characterization, and antioxidant activity study of a novel Pt-cyclopropa[60]fullerene | 2 |
| 612 | Azobenzene-Based Solar Thermal Fuels: A Review. 2022 , 14, Synthesis, characterization, and antioxidant activity study of a novel Pt-cyclopropa[60]fullerene complex/graphene oxide nanozyme. 2022 , 57, 11505-11522 Nonlinear dynamic instability of edge-cracked functionally graded graphene-reinforced composite | 2 |
| 612 | Azobenzene-Based Solar Thermal Fuels: A Review. 2022, 14, Synthesis, characterization, and antioxidant activity study of a novel Pt-cyclopropa[60]fullerene complex/graphene oxide nanozyme. 2022, 57, 11505-11522 Nonlinear dynamic instability of edge-cracked functionally graded graphene-reinforced composite beams. Structure and Property of Alkylated Graphene Oxide Depending on the Chain Length: Grand | 2 |
| 612 611 610 | Azobenzene-Based Solar Thermal Fuels: A Review. 2022, 14, Synthesis, characterization, and antioxidant activity study of a novel Pt-cyclopropa[60]fullerene complex/graphene oxide nanozyme. 2022, 57, 11505-11522 Nonlinear dynamic instability of edge-cracked functionally graded graphene-reinforced composite beams. Structure and Property of Alkylated Graphene Oxide Depending on the Chain Length: Grand Canonical Monte Carlo-Molecular Dynamics Approach. | 2 2 1 |
| 612 611 610 | Azobenzene-Based Solar Thermal Fuels: A Review. 2022, 14, Synthesis, characterization, and antioxidant activity study of a novel Pt-cyclopropa[60]fullerene complex/graphene oxide nanozyme. 2022, 57, 11505-11522 Nonlinear dynamic instability of edge-cracked functionally graded graphene-reinforced composite beams. Structure and Property of Alkylated Graphene Oxide Depending on the Chain Length: Grand Canonical Monte Carlo-Molecular Dynamics Approach. Failure modes and mechanisms of layered h-BN under local energy injection. 2022, 12, | 2 2 1 |

Temperature-Dependent Properties of Graphene on SiC Substrates for Triboelectric Nanogenerators. 9,

| 604 | Silicon Photonic Switches. 2022 , 239-255 | O |
|-----|---|---|
| 603 | Overview of Memristor-Based Neural Network Design and Applications. 10, | О |
| 602 | Electronic, transport, magnetic and optical properties of graphene nanoribbons review. | 1 |
| 601 | Graphene doping effects on the magnetic and transport properties of YBa2Cu3O7-Ihigh temperature superconductor. 2022 , 414192 | 0 |
| 600 | Thermally Conductive and Electrically Insulated Silicone Rubber Composites Incorporated with Boron NitrideMultilayer Graphene Hybrid Nanofiller. 2022 , 12, 2335 | O |
| 599 | Developing Graphene Grids for Cryoelectron Microscopy. 9, | 0 |
| 598 | Thermal transport in porous graphene with coupling effect of nanopore shape and defect concentration. | |
| 597 | Hydrodynamic signatures in thermal transport in devices based on two-dimensional materials: An ab initio study. 2022 , 106, | |
| 596 | Filler dimensionality effect on the performance of paraffin-based phase change materials. 2022, | 1 |
| 595 | Graphene-Based Polymer Composites for Flexible Electronic Applications. 2022 , 13, 1123 | 3 |
| 594 | Research Progress on the Preparation and Applications of Laser-Induced Graphene Technology. 2022 , 12, 2336 | 2 |
| 593 | Carbon Nanomaterials: Fullerene to Graphene. | 1 |
| 592 | The Application of Carbon Nanomaterials in Sensing, Imaging, Drug Delivery and Therapy for Gynecologic Cancers: An Overview. 2022 , 27, 4465 | O |
| 591 | Graphene-Based Materials: Structure and Properties. 2022 , 1-24 | |
| 590 | Tuning the electronic and magnetic properties of O Vacancy and nonmetallic atoms doped monolayer SnO: A first-principles study. 2022 , 114884 | O |
| 589 | Mechanical properties of diboron-porphyrin sheet under strain: A density functional theory study. 2022 , 99, 100629 | 0 |
| 588 | Effects of graphene content and dry density on swelling pressure of graphene-modified GMZ bentonite. 2022 , 342, 128066 | O |

| 587 | Surface-treatment process related sheet resistance variations in graphene-based thin-film electrodes. 2022 , 32, 102161 | 0 |
|-----|---|---|
| 586 | Functionalized graphene nanosheets obtained by direct shear exfoliation with poly(ionic liquid)s and its PAA composite. 2022 , 127, 109202 | O |
| 585 | Thermo-mechanical response of pristine and defective 2D hexagonal boron oxide. 2022 , 283, 115758 | |
| 584 | Recent progress in first row transition metal Layered double hydroxide (LDH) based electrocatalysts towards water splitting: A review with insights on synthesis. 2022 , 469, 214666 | 7 |
| 583 | A molecular dynamics simulation study on the role of graphene in enhancing the arc erosion resistance of Cu metal matrix. 2022 , 212, 111549 | |
| 582 | Quantitative analysis of temperature-dependent vibrational properties of Cobalt incorporated WSe2 ternary alloy. 2022 , 314, 123359 | |
| 581 | Carbon-based nano lattice hybrid structures: Mechanical and thermal properties. 2022 , 144, 115392 | 1 |
| 580 | Progress in measurement of thermoelectric properties of micro/nano thermoelectric materials: A critical review. 2022 , 101, 107553 | 3 |
| 579 | Simultaneously improved corrosion/wear resistances of epoxy coating on Mg alloy via the coupled hybridization of GO and nano-SiO2. 2022 , 128, 109224 | 0 |
| 578 | Phenyl- and naphthyl-type heteroatom substitution blocks in naphthylene-🛮 A DFT study. 2022 , 213, 111578 | |
| 577 | Processing of Graphene/Elastomer Nanocomposites: A Minireview. | |
| 576 | Nano-Graphite Prepared by Rapid Pulverization as Anode for Lithium-Ion Batteries. 2022 , 15, 5148 | 1 |
| 575 | Interfacial Chemical Vapor Deposition of Wrinkle-Free Bilayer Graphene on Dielectric Substrates. 2022 , 154367 | |
| 574 | Advanced graphene nanosheets approaches to efficient solar thermal water purification system. | |
| 573 | High ambipolar mobility in cubic boron arsenide. 2022 , 377, 437-440 | 4 |
| 572 | Dimension Effects of Graphene Sheets as Building Blocks: Implications for Thermal Conductivity Improvement of Graphene Films. | |
| 571 | Recent progress on multifunctional electromagnetic interference shielding polymer composites. 2022 , | 1 |
| 570 | Highly-durable hydrophobic and adhesive coatings fabricated from graphene-grafted methacrylate copolymers. | |

| 569 | Highly Sensitive Electrochemical Pb(II) Sensors Based on MoS2/rGO Nanocomposites by Square Wave Voltammetry. 2022 , 169, 077509 | |
|-----|--|---|
| 568 | Metal supported graphene catalysis: A review on the benefits of nanoparticular supported specialty sp2 carbon catalysts on enhancing the activities of multiple chemical transformations. 2022 , 100196 | 2 |
| 567 | Magnetic alignment of electrochemically exfoliated graphite in epoxy as a thermal interface material with high through-plane thermal conductivity. | 0 |
| 566 | The Preparation of Au-Loaded Ti3C2 Nanosheet and Research on Its Electrocatalytic Nitrogen Reduction Performance. 2022 , 228, 174-182 | |
| 565 | A Comprehensive Review for Micro/Nanoscale Thermal Mapping Technology Based on Scanning Thermal Microscopy. 2022 , 31, 976-1007 | 1 |
| 564 | Electronic structure and optical properties of B-, N-, and BN-doped black phosphorene using the first-principles. 2022 , 28, | |
| 563 | A Review on Environmental and Economic Impact of 2D Nanomaterials-Based Heat Transfer Fluids. 2022 , 2022, 1-15 | O |
| 562 | Highly anisotropic thermal conductivity of few-layer CrOCl for efficient heat dissipation in graphene device. | 1 |
| 561 | Phonon properties of biphenylene monolayer by first-principles calculations. 2022 , 121, 042203 | 3 |
| 560 | A Study on Reduced Graphene Oxide in Large-area Transparent Heaters for Defrosting. 2022 , 60, 570-576 | Ο |
| 559 | Graphene-based wearable temperature sensors: A review. 2022 , 221, 110971 | 1 |
| 558 | Cost effective, metal free reduced graphene oxide sheet for high performance electrochemical capacitor application. 2022 , 284, 115852 | О |
| 557 | Eco-friendly and mechanochemically functionalised graphene with quick and high water dispersibility. | |
| 556 | Elastic response of monolayer Si1⊠Gex. 2022 , 106, | |
| 555 | Multi-scale modeling of an atomic force microscope tip for the study of frictional properties and oscillation behavior. 095440622211132 | |
| 554 | Polypyrrole Supported Reduced Graphene Oxide Prepared by In Situ Polymerization and Its Thermoelectric Properties. | |
| 553 | Hygrothermal Buckling of Smart Graphene/Piezoelectric Nanocomposite Circular Plates on an Elastic Substrate via DQM. 2022 , 10, 2638 | 1 |
| 552 | Reduction in thermal conductivity of monolayer WS2 caused by substrate effect. | Ο |

| 551 | Effect of graphene size variation on mechanical properties of aluminium graphene nanocomposites: A modeling analysis. 2022 , | О |
|-----|---|---|
| 550 | Numerical Analysis on Solidification Behavior of Graphene Nanoplatelet Based Nanofluid in Cold Storage Cavity. 2022 , 31, 1180-1193 | |
| 549 | Effect of stacking order on the vibration properties of bilayer black phosphorus. 2022, 478, | |
| 548 | Design and Preparation of Localized Heat-Resistant Coating. 2022 , 14, 3032 | 1 |
| 547 | Hermetic Packaging Based on CuBn and AuAu Dual Bonding for High-Temperature Graphene Pressure Sensor. 2022 , 13, 1191 | 0 |
| 546 | Highly aligned growth of carbon nanotube forests with in-situ catalyst generation: A route to multifunctional basalt fibres. 2022 , 243, 110136 | 1 |
| 545 | 3D Nanoporous Graphene Based Single-Atom Electrocatalysts for Energy Conversion and Storage. | 0 |
| 544 | High performance copper-tungsten @graphene composites materials. 2022 , 2321, 012010 | |
| 543 | A Review on Analysis of Reinforced Recycled Rubber Composites. 2022 , 6, 225 | 1 |
| 542 | Isogeometric Analysis of Graphene-Reinforced Functionally Gradient Piezoelectric Plates Resting on Winkler Elastic Foundations. 2022 , 15, 5727 | |
| 541 | Advances in multilayer graphene processes for metallization and high frequency devices. | |
| 540 | Numerical Computation of Anisotropic Thermal Conductivity in Injection Molded Polymer Heat Sink Filled with Graphite Flakes. 2022 , 14, 3284 | |
| 539 | How Hydrodynamic Phonon Transport Determines the Convergence of Thermal Conductivity in Two-Dimensional Materials. 2022 , 12, 2854 | 1 |
| 538 | The Effect of Annealing and Optical Radiation Treatment on Graphene Resonators. 2022, 12, 2725 | O |
| 537 | Multilevel Anti-Counterfeiting Based on Covert Structural Features Embedded in Femtosecond-Laser-Treated Gold Nanocluster/Graphene Hybrid Layer. | 1 |
| 536 | Non-isothermal crystallization kinetics of graphene/PA10T composites. 2022 , 8, e10206 | 1 |
| 535 | Carbon-Related Materials: Graphene and Carbon Nanotubes in Semiconductor Applications and Design. 2022 , 13, 1257 | 2 |
| 534 | Multifunctional MXene/Aramid Nanofiber Composite Films for Efficient Electromagnetic Interference Shielding and Repeatable Early Fire Detection. 2022 , 7, 29161-29170 | 1 |

| 533 | Flake Graphene as an Efficient Agent Governing Cellular Fate and Antimicrobial Properties of Fibrous Tissue Engineering Scaffolds Review. 2022 , 15, 5306 | |
|-----|---|---|
| 532 | Photothermal Responsivity of van der Waals Material-Based Nanomechanical Resonators. 2022 , 12, 2675 | |
| 531 | Raman spectrum of MXene Ti 2 C under planar symmetrical strain: First-principles calculations. | |
| 530 | Ink-printed metal/graphene aerogel for glucose electro-oxidation. 20220004 | |
| 529 | Modified couple stress theory for wave propagation in viscoelastic sandwich microplates with FG-GPLRC core and piezoelectric face sheets as sensor and actuator. 1-44 | |
| 528 | Distinct optical and acoustic phonon temperatures in nm-thick suspended WS2: direct differentiating via acoustic phonon thermal field invariant. 2022 , 100816 | |
| 527 | Advances in Zinc and Magnesium Battery Polymer Cathode Materials. | |
| 526 | Prediction of the ferroelastic and negative Poisson \exists ratio of a two-dimensional \exists CaX (X = S, Se) monolayer. 2022 , 137, | |
| 525 | Effect of the Addition of Graphene Nanoplatelets on the Thermal Conductivity of Rocket Kerosene: A Molecular Dynamics Study. 2022 , 15, 5511 | |
| 524 | Cryotronic Low-Powered Strained Polymorphic Photodetector Functionalized by Palladium Incorporated Tin Diselenide. 2201302 | |
| 523 | Mechanical Characterization of Dental Prostheses Manufactured with PMMA© raphene Composites. 2022 , 15, 5391 | 1 |
| 522 | Higher-order finite element solution of graphene platelets reinforced nanocomposite curved panels with uniform/non-uniform porosity. 1-20 | 1 |
| 521 | Graphene-Based Textiles for Thermal Management and Flame Retardancy. 2205934 | 0 |
| 520 | A single-crystalline diamond X-ray detector based on direct sp3-to-sp2 conversed graphene electrodes. 2022 , 2, 94-99 | O |
| 519 | Graphene-based polymer nanocomposites in food packaging and factors affecting the behaviour of graphene-based materials: a review. 2022 , 24, | 1 |
| 518 | Strain dependences of electronic properties, band alignments and thermal properties of bilayer WX2 (X = Se, Te). 1-21 | O |
| 517 | Graphene-Based Thermoplastic Composites as Extremely Broadband and Frequency-Dependent EMI Absorbers for Multifunctional Applications. | 0 |
| 516 | Photosynthetic microbial fuel cells for methanol treatment using graphene electrodes. 2022 , 114045 | O |

| 515 | From Materials to Devices: Graphene toward Practical Applications. 2200671 | 3 |
|-----|--|---|
| 514 | The influence of liquid silicone rubber on the properties of polyurethane elastomer/liquid silicone rubber/graphene nanoplatelets stretchable conductive materials. 147776062211186 | |
| 513 | Methods of Preparing Nanoscale Vitreous Ice Needles for High-Resolution Cryogenic Characterization. 2022 , 22, 6501-6508 | |
| 512 | Emerging reconfigurable electronic devices based on two-dimensional materials: A review. | |
| 511 | Recent Advances in Laser-Induced Graphene: Mechanism, Fabrication, Properties, and Applications in Flexible Electronics. 2205158 | 4 |
| 510 | CuOHe2O3 nanoparticles embedded onto reduced graphene oxide nanosheets: a high-performance nanocomposite anode for Li-ion battery. | |
| 509 | Low and Anisotropic Tensile Strength and Thermal Conductivity in the Single-Layer Fullerene Network Predicted by Machine-Learning Interatomic Potentials. 2022 , 12, 1171 | 2 |
| 508 | Influence of growth parameters on the dopant configuration of nitrogen-doped graphene synthesized from phthalocyanine molecules. 2022 , 33, 19361-19375 | |
| 507 | Preparation of Ultrathin Graphene Film via Capillary Liquid Bridge for Uniform Lithium Nucleation in Anode Free Lithium Metal Battery. 2022 , | 0 |
| 506 | Evaluation of carbon based-supporting materials for developing form-stable organic phase change materials for thermal energy storage: A review. 2022 , 246, 111896 | 1 |
| 505 | Polydimethylsiloxane as protecting layer to improve the quality of patterns on graphene oxide. 2022 , 204, 111353 | |
| 504 | Synergistic effect of nanotextured graphene oxide modified with hollow silica microparticles on mechanical and thermal properties of epoxy nanocomposites. 2022 , 245, 110175 | O |
| 503 | High latent heat phase change materials (PCMs) with low melting temperature for thermal management and storage of electronic devices and power batteries: Critical review. 2022 , 168, 112783 | 2 |
| 502 | Microencapsulated phase change materials with graphene-based materials: Fabrication, characterisation and prospects. 2022 , 168, 112806 | 1 |
| 501 | Preparation of microarc oxidation coating containing graphene combined with micro-arc oxidation and electrophoretic deposition. 2022 , 290, 126598 | O |
| 500 | Mechanical properties of pristine and nanocrystalline graphene up to ultra-high temperatures. 2022 , 9, 100197 | O |
| 499 | Highly thermal conductive phase change composites containing Ag-welding graphene framework with excellent solar-thermal conversion and rapid heat transfer ability. 2022 , 161, 107128 | |
| 498 | Recent developments in graphene and graphene oxide materials for polymer electrolyte membrane fuel cells applications. 2022 , 168, 112836 | 4 |

| 497 | Intrinsically and extrinsically anisotropic heat transport in bulk materials and nanostructures: A review. 2022 , 196, 123307 | |
|-----|--|---|
| 496 | Bioinspired nanocomposite films with graphene and MXene. 2022 , 12, 100117 | |
| 495 | Macro and micro methodologies for thermomechanical mirror buckling of freestanding graphene membranes. 2022 , 33, 104230 | |
| 494 | Trade-off between the near-field heat transfer and the space charge effect in graphene-anode thermionic energy converters. 2022 , 260, 125174 | |
| 493 | The dual role of interlayer crosslinks leads to an abnormal behavior of interlayer thermal resistance in multilayer graphene. 2023 , 183, 107871 | 2 |
| 492 | Low-power phase-change memory cell based on a doped GeTe/InP heterostructure: a first-principles study. | O |
| 491 | Machine Learning for Property Prediction and Optimization of Polymeric Nanocomposites: A State-of-the-Art. 2022 , 23, 10712 | 1 |
| 490 | Temperature-Dependent Absorption of Ternary HfS2⊠Sex 2D Layered Semiconductors. 2022 , 15, 6304 | О |
| 489 | Graphene-based anti-corrosive coating on steel for reinforced concrete infrastructure applications: Challenges and potential. 2022 , 351, 128947 | 2 |
| 488 | Fast proton and water transport in ceramic membrane-based magic-angle graphene. 2022 , 225, 119076 | O |
| 487 | Surfactant assisted exfoliation of high purity graphene in aqueous solution as a nanofluid using kitchen blender: Influence on dispersion, thermal conductivity and rheological properties. 2022 , 33, 103767 | 0 |
| 486 | Computational study on the order-of-magnitude difference in thermal conductivity between graphene and graphane nanoribbons. 2022 , 129, 109335 | O |
| 485 | Insight into ZnO/carbon hybrid materials for photocatalytic reduction of CO2: An in-depth review. 2022 , 65, 102205 | 1 |
| 484 | The effect of surface functional groups on the wettability of graphene oxide coated alumina substrate: Molecular dynamics simulations. 2022 , 366, 120268 | O |
| 483 | Computational study of the effect of different doping elements on the thermal conduction properties of graphene nanoribbons. 2022 , 129, 109379 | O |
| 482 | Reactive graphene by one-pot grafting toward tough and fire-retardant thermoset nanocomposites. 2022 , 34, 102311 | O |
| 481 | Eco-friendly sonochemical reduction of graphene oxide in water using TiO2 photocatalyst activated by sonoluminescence. 2022 , 605, 154820 | О |
| 480 | Nanoscale advanced carbons as an anode for lithium-ion battery. 2022 , 16, 100290 | 1 |

| 479 | Temperature-dependent Raman spectroscopy and thermal conductivity of TiS2 hexagonal nanodiscs. 2022 , 152, 107084 | О |
|-----|--|---|
| 478 | Molecular mechanics mechanisms for ultralow bending stiffness of monolayer silicene. 2022 , 33, 104387 | O |
| 477 | Thermal resistance mapping along a single cup-stacked carbon nanotube with focused electron beam heating. 2022 , 198, 123418 | О |
| 476 | A review on recent advances in graphene oxide-based composite coatings for anticorrosion applications. 2022 , 173, 107208 | 2 |
| 475 | SiC2/BP5: A pentagonal van der Waals heterostructure with tunable optoelectronic and mechanical properties. 2022 , 606, 154857 | 0 |
| 474 | Modified low-temperature synthesis of graphene oxide nanosheets: Enhanced adsorption, antibacterial and antioxidant properties. 2022 , 215, 114245 | Ο |
| 473 | Recent advances in thermal conductivity and thermal applications of graphene and its derivatives nanofluids. 2023 , 218, 119176 | 0 |
| 472 | Nanoarchitectonics of graphene oxide with functionalized cellulose nanocrystals achieving simultaneous dual connections and defect repair through catalytic graphitization for high thermal conductivity. 2023 , 201, 295-306 | 1 |
| 471 | Lower thermal conductivity of body centered cubic carbon (C14): a comparative study with diamond. 2022 , 24, 23817-23824 | 0 |
| 470 | Niobium tellurium as a novel broadband saturable absorber for pulsed fiber lasers. 2022 , 10, 13201-13209 | Ο |
| 469 | The magnetic anisotropy and spin filtering effect in ferromagnetic phosphorene. 2022, 67, 931-934 | 0 |
| 468 | Investigation of photocatalytic and DNA interaction of novel heterostructured GO/Bi2O3/ZnO nanocomposite. 2022 , 5, 324-333 | O |
| 467 | Tuning the structural stability and electrochemical properties in graphene anode materials by B doping: a first-principles study. 2022 , 24, 21452-21460 | 0 |
| 466 | Monolayer and bilayer graphene. 2022 , | O |
| 465 | Spectroscopic Analysis of the Dielectric Properties in Reduced Graphene Oxide Loaded Epoxy Polymer Composites. 2022 , 221-230 | O |
| 464 | Nanoporous Pentagraphene Nanotube Halogen Gas Sensor: A First Principles Study. | O |
| 463 | Mechanical behavior of graphene conductive ink for wearable applications. 2022, 107-127 | О |
| 462 | A highly orientational architecture formed by covalently bonded graphene to achieve high through-plane thermal conductivity of polymer composites. 2022 , 14, 11171-11178 | O |

| 461 | Anisotropic thermal transport in twisted bilayer graphene. 2022 , 24, 21722-21728 | O |
|-----|---|---|
| 460 | Effect Of Pretreated Copper Foil On the Growth of High Quality Graphene. | O |
| 459 | ECyclodextrin-functionalized graphene and metal@rganic framework composites for ultrasensitive electrochemical detection of chloramphenicol. 2022 , 147, 4312-4317 | 0 |
| 458 | Physical properties of carbon nanotubes and nanoribbons. 2022 , 305-332 | O |
| 457 | Growth of turbostratic stacked graphene using waste ferric chloride solution as a feedstock. 2022 , 12, 25048-25053 | 1 |
| 456 | Spin filtering and negative differential resistance in PAQR-ZGNR junctions. 2023 , 145, 115512 | O |
| 455 | The quest for negative electrode materials for Supercapacitors: 2D materials as a promising family. 2023 , 452, 139455 | 3 |
| 454 | Effect of electronphonon coupling on transport properties of monolayer germanene: A thermoelectric perspective. 2023 , 153, 107115 | O |
| 453 | Mechanical and thermal properties of graphene nanoplatelets-reinforced recycled polycarbonate composites. 2023 , 6, 117-128 | 2 |
| 452 | Carboxylated Graphene Oxide as a Nanocarrier for Drug Delivery of Quercetin as an Effective Anticancer Agent. 2022 , 26, 324-329 | O |
| 451 | Minimizing the Programming Power of Phase Change Memory by Using Graphene Nanoribbon Edge-Contact. 2022 , 9, 2202222 | 2 |
| 450 | Graphene oxide/polyurethane-based composite solidBolid phase change materials with enhanced energy storage capacity and photothermal performance. | O |
| 449 | All-Optical Three-Mode Switch Based on Graphene-Embedded Vertical Directional Couplers. 2022, | O |
| 448 | A Novel Sustainable Process for Multilayer Graphene Synthesis Using CO2 from Ambient Air. 2022 , 15, 5894 | O |
| 447 | Structural, Electronic, and Optical Properties of Mono- and Co-Doped Graphene with Ti and Ru. | 0 |
| 446 | Reduced graphene oxide derived from urea-assisted solution combustion route and its electrochemical performance. 2022 , 45, | O |
| 445 | Synthesis of Graphene and Related Materials by Microwave-Excited Surface Wave Plasma CVD Methods. 2022 , 2, 160-184 | 0 |
| 444 | Advanced Carbon-Based Polymeric Nanocomposites for Forensic Analysis. 2022 , 14, 3598 | 1 |

| 443 | Enhanced mechanical properties of bridged graphene oxide/bismaleimide nanocomposites. | О |
|---------------------------------|---|-------------|
| 442 | Nanofunctionalized pulse-electroformed copper/graphene oxide tubular composite for efficient textile dye degradation under visible light irradiation. | O |
| 441 | The Effect of Carbon/Oxygen Ratio upon Structure-Property Relationships in Polymer/Graphene Nanocomposites. 37, 59-78 | О |
| 440 | A review on electrical and gas-sensing properties of reduced graphene oxide-metal oxide nanocomposites. | 5 |
| 439 | PMMA-Based Nanocomposites for Odontology Applications: A State-of-the-Art. 2022 , 23, 10288 | 2 |
| 438 | Stretchable and tough tannic acid-modified graphene oxide/ polyvinyl alcohol conductive hydrogels for strain and pressure sensors. 2022 , 12, 095206 | 1 |
| 437 | ReviewHeteroatom-Doped High Porous Carbon Metal Free Nanomaterials for Energy Storage and Conversion. 2022 , 11, 091006 | O |
| 436 | Independent Dual-Channel Approach to Mesoscopic Graphene Transistors. 2022 , 12, 3223 | O |
| 435 | Identification of Graphene Dispersion Agents through Molecular Fingerprints. | О |
| | | |
| 434 | 2+ 🛮 Dimensional Materials via Atomistic Z-Welding. 2202695 | O |
| 434 | 2+ EDimensional Materials via Atomistic Z-Welding. 2202695 A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, | 0 |
| | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion | |
| 433 | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, Wave Dispersion Analysis of Functionally Graded GPLs-Reinforced Sandwich Piezoelectromagnetic | 0 |
| 433 | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, Wave Dispersion Analysis of Functionally Graded GPLs-Reinforced Sandwich Piezoelectromagnetic Plates with a Honeycomb Core. 2022, 10, 3207 Thiourea-Mediated Reduced Graphene Oxide Nanosheets, Their Cytotoxic Impacts on Human | 0 |
| 433 432 431 | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, Wave Dispersion Analysis of Functionally Graded GPLs-Reinforced Sandwich Piezoelectromagnetic Plates with a Honeycomb Core. 2022, 10, 3207 Thiourea-Mediated Reduced Graphene Oxide Nanosheets, Their Cytotoxic Impacts on Human Prostate Cancer Cells, and Their Antibacterial Effects against E. coli Mastitis. 2022, 2022, 1-18 An Overview of Coating Processes on Metal Substrates Based on Graphene-Related Materials for | 0 2 |
| 433 432 431 430 | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, Wave Dispersion Analysis of Functionally Graded GPLs-Reinforced Sandwich Piezoelectromagnetic Plates with a Honeycomb Core. 2022, 10, 3207 Thiourea-Mediated Reduced Graphene Oxide Nanosheets, Their Cytotoxic Impacts on Human Prostate Cancer Cells, and Their Antibacterial Effects against E. coli Mastitis. 2022, 2022, 1-18 An Overview of Coating Processes on Metal Substrates Based on Graphene-Related Materials for Multifarious Applications. 2022, 61, 13763-13786 | O 2 O |
| 433 432 431 430 429 | A Green and Easy Large Scale Method for Obtaining Graphene Nanoplatelets by Steam Explosion and Ultrasonic Exfoliation. 2022, 7, Wave Dispersion Analysis of Functionally Graded GPLs-Reinforced Sandwich Piezoelectromagnetic Plates with a Honeycomb Core. 2022, 10, 3207 Thiourea-Mediated Reduced Graphene Oxide Nanosheets, Their Cytotoxic Impacts on Human Prostate Cancer Cells, and Their Antibacterial Effects against E. coli Mastitis. 2022, 2022, 1-18 An Overview of Coating Processes on Metal Substrates Based on Graphene-Related Materials for Multifarious Applications. 2022, 61, 13763-13786 Graphene and chitosan innovative materials for water treatment: Review. 2022, | 0 2 0 |

| 425 | Pre-compliance testing of the shielding effectiveness of 3D printed multiwall carbon nanotube/ethylene-vinyl acetate copolymer composites in the 1 D GHz range. 2022 , 1254, 012020 | 0 |
|-----|--|---|
| 424 | Biochemical Sensors Based on Graphene and Its Composites. 2022 , 58, 717-724 | О |
| 423 | Fabrication of graphene oxide reinforced plasma sprayed Al2O3 coatings. 2022 , | 1 |
| 422 | Synthesis of semiconductors nanocomposites of polymethyl methacrylate and reduced graphene oxide by ultraviolet radiation. 2022 , 20, 4241-4255 | O |
| 421 | Gate-tunable modulation of the optical properties of multilayer graphene by the reversible intercalation of ionic liquid anions. 2022 , 132, 095102 | 0 |
| 420 | Recent Advances in Thermal Interface Materials. | O |
| 419 | Thermal Transport Properties of Na2X (X = O and S) Monolayers. 2022 , 12, 1294 | 0 |
| 418 | Graphene Family Nanomaterials for Stem Cell Neurogenic Differentiation and Peripheral Nerve Regeneration. | О |
| 417 | Study of seawater effect on the mechanical and thermomechanical properties of hybrid multiwall carbon nanotube/graphene nanoplatelet-glass fiber/epoxy laminates. | 0 |
| 416 | Epitaxy of III-nitrides on two-dimensional materials and its applications. | O |
| 415 | Graphene-Based Electrospun Fibrous Materials with Enhanced EMI Shielding: Recent Developments and Future Perspectives. 2022 , 7, 33699-33718 | 2 |
| 414 | Towards Improved Detectivity and Responsivity Using Graphene Nanoribbons with Width of 10¶5 nm for Photodetection Applications. | 1 |
| 413 | Graphene derivatives reinforced metal matrix nanocomposite coatings: A review. 2022 , 32, 1-14 | 0 |
| 412 | A Critical Review on New and Efficient 2D Materials for Catalysis. 2200771 | O |
| 411 | Phonon anharmonicity and thermal conductivity of two-dimensional van der Waals materials: A review. 2022 , 65, | O |
| 410 | Fabrication of a novel solar cell using copper phthalocyanine tetrasulfonic acid tetrasodium salt / graphene oxide. | O |
| 409 | Resonant Plasmonic Terahertz Detection in Gated Graphene p - i - n Field-Effect Structures Enabled by Nonlinearity from Zener-Klein Tunneling. 2022 , 18, | 1 |
| 408 | Biological reduction of graphene oxide using Citrus sinensis L. extract and its nano-structural photocatalytic - antibacterial performances. 2022 , 13, 035016 | o |

| 407 | Leveraging Low-Fidelity Data to Improve Machine Learning of Sparse High-Fidelity Thermal Conductivity Data via Transfer Learning. 2022 , 100868 | О |
|-----|---|---|
| 406 | Physical Chemistry Study of Graphite Liquid Exfoliation through (Interaction by (n)-Annulene. 2022 , 96, 2222-2231 | Ο |
| 405 | Scalable production of electrochemically exfoliated graphene by an extensible electrochemical reactor with encapsulated anode and dual cathodes. 2022 , 155211 | 1 |
| 404 | Substrate dependent thermal conductivity in Td-WTe 2 using micro-Raman spectroscopy. | O |
| 403 | Progress in preparation, characterization, surface functional modification of graphene oxide: A review. 2022 , 101560 | 0 |
| 402 | Graphene-Based Magnetocaloric Composites for Energy Conversion. 2200811 | O |
| 401 | Cost effective production of high quality multilayer graphene in molten Sn bubble column by using CH4 as carbon source. 2022 , 167495 | 1 |
| 400 | Theory for Zero-Index Conductive Cloaks: Constant-Temperature Scheme. 2023 , 53-64 | O |
| 399 | Recent Progress in the Design of Advanced MXene/Metal Oxides-Hybrid Materials for Energy Storage Devices. 2022 , | 1 |
| 398 | Mechanism of crack propagation in penta-graphene. 2022 , 111582 | O |
| 397 | Evolution of Raman and photoluminescence spectral characteristics of monolayer CVD-MoS2 over a wide temperature range. 2022 , 123, 103443 | 0 |
| 396 | Investigation of thermal conductivity enhancement of water-based graphene and graphene/MXene nanofluids. 2022 , 367, 120455 | 1 |
| 395 | Preparation of the porous biochar and its application in supercapacitor. | О |
| 394 | Effect of Na-ion intercalation on the thermal conductivity of carbon honeycomb nanostructure. 2022 , 24, 25537-25546 | Ο |
| 393 | Recent major advances and challenges in the emerging Graphene based nanomaterials in electrocatalytic Fuel Cell technology. | О |
| 392 | Emerging Devices for Sensing-Memory-Computing Applications. 2022 , 143-197 | Ο |
| 391 | Role of tilt grain boundaries on the structural integrity of WSe2 monolayers. | 1 |
| 390 | The electronic properties of non-conventional Egraphyne nanoribbons. | O |

| 389 | Melaminegraphene epoxy nanocomposite based die attach films for advanced 3D semiconductor packaging applications. 2022 , 14, 15193-15202 | О |
|-------------|--|----------|
| 388 | Heterogeneous photocatalytic degradation of phenol over Pd/rGO sheets. 2022, | Ο |
| 387 | Molybdenum disulfide (MoS2) based photoredox catalysis in chemical transformations. 2022 , 12, 29826 | 5-298391 |
| 386 | Strain engineering of graphene on rigid substrates. | O |
| 385 | Recent Advances in Modeling and Experimental Prediction of Properties of Graphene Reinforced Natural Rubber Composites: A Review (Part 1). 2022 , | О |
| 384 | Investigation of the effect of Graphene Nanoplatelet content on Flexural Behavior, Surface Roughness and Water Absorption of a Graphene Nanoplatelets Reinforced Epoxy Nanocomposites. | 0 |
| 383 | Applications of Single-Molecule Vibrational Spectroscopic Techniques for the Structural Investigation of Amyloid Oligomers. 2022 , 27, 6448 | О |
| 382 | Ballistic guided electrons against disorder in graphene nanoribbons. 2022 , 132, 164305 | O |
| 381 | Exploring 2D Energy Storage Materials: Advances in Structure, Synthesis, Optimization Strategies, and Applications for Monovalent and Multivalent Metal-Ion Hybrid Capacitors. 2205101 | О |
| 3 80 | Improving the Sensing Properties of Graphene MEMS Pressure Sensor by Low-Temperature Annealing in Atmosphere. 2022 , 22, 8082 | O |
| 379 | Electronic Band Gap Tuning and Calculations of Mechanical Strength and Deformation Potential by Applying Uniaxial Strain on MX2 ($M = Cr$, Mo , W and $X = S$, Se) Monolayers and Nanoribbons. | О |
| 378 | Structural, optical, electrical, and DFT studies of chitosan/polyvinyl alcohol composite doped with mixed nanoparticles (GO/TiO2) for flexible energy-storage devices. | O |
| 377 | A review on recent advancements on removal of harmful metal/metal ions using graphene oxide: Experimental and theoretical approaches. 2022 , 159672 | О |
| 376 | NEMS/MEMS carbon functionalization: A prospective expression. | O |
| 375 | In Situ Combustion Synthesis of Gr/h-BN Composites and Its Passive Heat Dissipation Application. 2022 , 7, 36786-36794 | О |
| 374 | Graphene Properties, Synthesis and Applications: A Review. | O |
| 373 | Carbon-based flexible electrodes for electrochemical potassium storage devices. 2022 , 37, 852-874 | О |
| 372 | Penta-graphene and phagraphene: thermal expansion, linear compressibility, and Poisson aratio. 2022 , 34, 505301 | O |

| 371 | Eco-Friendly Approach for Graphene Oxide Synthesis by Modified Hummers Method. 2022, 15, 7228 | 2 |
|-----|---|---|
| 370 | Recent development of graphene-based composite for multifunctional applications: energy, environmental and biomedical sciences. 1-69 | 1 |
| 369 | Surface Analysis of Graphene and Graphite. | O |
| 368 | Effect of Graphene Content on the Mechanical Properties of PMMA Composites. 2023 , 954-967 | O |
| 367 | Effect of ball milling time on microstructure and mechanical properties of graphene nanoplates and TiBw reinforced TiBAlAV alloy composites. 2022 , 144240 | 0 |
| 366 | The Use of Carbon-Containing Compounds to Prepare Functional and Structural Composite Materials: A Review. 2022 , 12, 9945 | 1 |
| 365 | Stress Relaxation Behavior of Poly(Methyl Methacrylate)/Graphene Composites: Ultraviolet Irradiation. 2022 , 14, 4192 | О |
| 364 | Theory of sub-Sharvin charge transport in graphene disks. 2022 , 106, | O |
| 363 | Comprehensive review of low pull-in voltage RF NEMS switches. | O |
| 362 | Dne stone, two birdsBolvent system to fabricate microcrystalline cellulose-Ti3C2Tx nanocomposite film as a flexible dielectric and thermally conductive material. | O |
| 361 | Detour-phased perovskite ultrathin planar lens using direct femtosecond laser writing. | O |
| 360 | A comparative study of smart polyurethane foam using RSM and COMSOL multiphysics for acoustical applications: from materials to component. | O |
| 359 | Innovative ceramic-matrix composite substrates with tunable electrical conductivity for highBower applications. | O |
| 358 | Graphene and Its Derivatives: Synthesis and Application in the Electrochemical Detection of Analytes in Sweat. 2022 , 12, 910 | 5 |
| 357 | Intrinsic bitunable magnetism/polarity behavior in 2D Janus Cr2I3Y3 (Y = F, Cl, or Br) systems. 2022 , 6, | 3 |
| 356 | Significant regulation of stress on the contribution of optical phonons to thermal conductivity in layered Li2ZrCl6: First-principles calculations combined with the machine-learning potential approach. 2022 , 121, 172201 | 1 |
| 355 | MXene and functionalized graphene hybridized nanoflakes based silicone-oil nanofluids as new class of media for micro-cooling application. 2022 , | 1 |
| 354 | Investigation of microstructure, mechanical properties, and wear behavior of aluminum A380 nanocomposite reinforced with graphene nanosheets produced by spark plasma sintering technique. 095440892211311 | O |

| 353 | Two-Dimensional EPdX2 (X=S, Se, and Te) Monolayers with Promising Potential for Thermoelectric Applications. 2022 , 126, 17885-17893 | 1 |
|-----|--|---|
| 352 | Mechanical and electrical properties of Cu30Cr0.2Zr composites enhanced by CeO2/GO. 2022 , 167759 | 1 |
| 351 | A critical review on the effect of morphology, stability, and thermophysical properties of graphene nanoparticles in nanolubricants and nanofluids. | О |
| 350 | Influence of Al-O and Al-C Clusters on Defects in Graphene Nanosheets Derived from Coal-Tar Pitch via Al4C3 Precursor. 2022 , 15, 7312 | O |
| 349 | Preparation of Graphene-Based Hydrogel Thermal Interface Materials with Excellent Heat Dissipation and Mechanical Properties. 2200332 | O |
| 348 | Rational design of graphene structures for preparing high-performance thermal interface materials: A mini review. 2022 , 65, | O |
| 347 | Graphene-Based MetalDrganic Framework Hybrids for Applications in Catalysis, Environmental, and Energy Technologies. | 5 |
| 346 | The Advanced Applications of 2D Materials in SERS. 2022 , 10, 455 | О |
| 345 | Intrinsic and engineered properties of black phosphorus. 2022 , 28, 100895 | О |
| 344 | Aluminium-graphene metal matrix nanocomposites: Modelling, analysis, and simulation approach to estimate mechanical properties. 2022 , | O |
| 343 | Mobile device integrated graphene oxide quantum dots based electrochemical biosensor design for detection of miR-141 as a pancreatic cancer biomarker. 2022 , 435, 141390 | 1 |
| 342 | Comparative DFT study on the H2 adsorption and the sensing properties of BN-, BP-, AlN-, and AlP-decorated graphene nanoflakes. 2022 , 130, 109510 | О |
| 341 | Recent progress and multifunctional applications of fire-retardant epoxy resins. 2022, 33, 104702 | О |
| 340 | Effects of graphene nanoplatelets type on self-sensing properties of cement mortar composites. 2022 , 359, 129488 | 2 |
| 339 | Ex-situ modification of lattice thermal transport through coherent and incoherent heat baths. 2022 , 29, 100884 | О |
| 338 | Investigation of micro/nano formation mechanism of porous graphene induced by CO2 laser processing on polyimide film. 2022 , 84, 555-564 | O |
| 337 | Multiscale modelling of fracture in graphene sheets. 2022 , 122, 103617 | 0 |
| 336 | Single process of pulsed wire discharge for defect healing and reduction of graphene oxide. 2023 , 201, 1184-1192 | О |

| 335 | Towards Solar-Driven Formation of Robust and Self-Healable Waterborne Polyurethane Containing Disulfide Bonds via in-situ Incorporation of 2D Titanium Carbide MXene. 2023 , 11, 1063-1076 | O |
|-----|---|---|
| 334 | Thermal transport across graphene/GaN and MoS2/GaN interfaces. 2023 , 201, 123569 | O |
| 333 | Recent progress in low-dimensional nanomaterials filled multifunctional metal matrix nanocomposites. 2023 , 132, 101034 | 0 |
| 332 | WEAR PROPERTIES OF ALUMINUM MATRIX COMPOSITES REINFORCED BY GRAPHENE ENCAPSULATED SIC NANOPARTICLES. 2021 , 16, 249-259 | O |
| 331 | Carbon-based nanostructures for cancer therapy and drug delivery applications. | O |
| 330 | Nanotechnology applications in food packaging. 2023 , 301-320 | O |
| 329 | Modified couple stress-based free vibration and dynamic response of rotating FG multilayer composite microplates reinforced with graphene platelets. | O |
| 328 | Graphene Incorporated Electrospun Nanofiber for Electrochemical Sensing and Biomedical Applications: A Critical Review. 2022 , 22, 8661 | 4 |
| 327 | First-principles study on the lattice thermal conductivity of layered Dirac semimetal BeN4. 2022, 115571 | O |
| 326 | Bifunctional oxygen electrocatalysts for rechargeable zinc-air battery based on MXene and beyond. 2023 , 18, | O |
| 325 | Phase diagrams of graphene-metal systems. | О |
| 324 | Ballistic Thermal Transport at Sub-10 nm Laser-Induced Hot Spots in GaN Crystal. 2204777 | O |
| 323 | Recent Studies on Thermally Conductive 3D Aerogels/Foams with the Segregated Nanofiller Framework. 2022 , 14, 4796 | 1 |
| 322 | Robust Room Temperature Ferromagnetism In Cobalt Doped Graphene by Precision Control of Metal Ion Hybridization. 2210722 | O |
| 321 | Evaluating the detection and trapping of small gas molecules on hydrogenated siligene. | O |
| 320 | Improvement in the electro-optical and electronic properties of the reduced graphene oxide dispersed in a liquid crystalline material 4Ebctyl-4-cyano-biphenyl. 1-19 | O |
| 319 | Ultrahigh strength and negative thermal expansion and low thermal conductivity in graphyne nanosheets confirmed by machine-learning interatomic potentials. 2022 , 36, 100446 | O |
| 318 | Stacking order reduction in multilayer graphene by inserting nanospacers. 2022 , 132, 174305 | O |

| 317 | Highly thermal conductive graphene/carbon nanotubes films with controllable thickness as thermal management materials. 2022 , | Ο |
|-----|---|---|
| 316 | Dynamic Process of Structural Change in Graphene Irradiated by Swift Heavy Ions. | О |
| 315 | THE INFLUENCE OF GRAPHENE OXIDE ON STRUCTURAL, OPTICAL, AND CATALYTIC PROPERTIES OF LaFeO3 NANOPARTICLES SYNTHESIZED BY HYDROTHERMAL METHOD. 2022 , 100968 | Ο |
| 314 | Infrared Radiation of Graphene Electrothermal Film Triggered Alpha and Theta Brainwaves. 2200064 | Ο |
| 313 | Competitive growth between the top and bottom layers of few-layer graphene at the domain boundary merging stage. 2022 , | О |
| 312 | Electronic Properties of Hexagonal Graphene Quantum Rings from TAO-DFT. 2022 , 12, 3943 | Ο |
| 311 | Application of 2D Materials for Adsorptive Removal of Air Pollutants. | О |
| 310 | A route towards graphene from lignocellulosic biomass: Technicality, challenges, and their prospective applications. 2022 , 380, 135090 | Ο |
| 309 | MXene-based phase change materials for solar thermal energy storage. 2022 , 273, 116432 | О |
| 308 | Proximity induced longitudinal and transverse thermoelectric response in graphene-ferromagnetic CrBr3 vdW heterostructure. | Ο |
| 307 | Carbonous-Based Optoelectronic Devices. 2023 , 101-125 | О |
| 306 | Introducing oxidant to expand laser-induced in-plane microsupercapacitor in depth. 2023 , 555, 232394 | Ο |
| 305 | Probing the electronic properties of chemically synthesised doped and undoped graphene derivative. 2023 , 287, 116145 | 0 |
| 304 | Effect of heating rates on the energy release application of Al/MLG/Fe2O3 nanothermite. 1-13 | O |
| 303 | Efficient modulation of thermal transport in two-dimensional materials for thermal management in device applications. | 0 |
| 302 | Thermal and electrical transport in partly-reduced graphene oxide films: The effect of low temperature and structure domain size. 2023 , 203, 130-140 | O |
| 301 | Optimal design of thermoelectric properties of graphene nanoribbons with 5-7 ring defects based on Bayesian algorithm. 2023 , 0 | 0 |
| 300 | High-yield fabrication of electromechanical devices based on suspended Ti3C2Tx MXene monolayers. | O |

| 299 | Ultra-high thermal sensitivity of graphene microfiber. 2023 , 203, 620-629 | 0 |
|-------------|--|---|
| 298 | Effects of inherent phonon scattering mechanisms on the lattice thermal conductivity of graphene. 2023 , 131, 109611 | О |
| 297 | Negative thermal expansion behaviour of graphdiyne. 2023 , 48, 101695 | Ο |
| 296 | Crystalline multilayer graphene nanoflakes synthesized by catalytic chemical vapor deposition using reduced nanostructured hematite as catalyst precursor and 1,2-dichlorobenzene and benzylamine mixture as carbon source. 2023 , 203, 813-826 | Ο |
| 295 | Negative Poisson's ratio and thickness-dependent optoelectronic response in two-dimensional thermoelectric TlCuSe. 2023 , 295, 127155 | Ο |
| 294 | Innovations in the synthesis of graphene nanostructures for bio and gas sensors. 2023 , 145, 213234 | 2 |
| 293 | Two-dimensional nanomaterials: A critical review of recent progress, properties, applications, and future directions. 2023 , 165, 107362 | 1 |
| 292 | Effects of mixing methods on the interface and microstructure evolution of graphene platelets/Ti-6Al-4V powder composites fabricated by powder metallurgy and extrusion. 2023 , 36, 102553 | О |
| 291 | Theoretical modelling of graphene system for nano-electromechanical resonator and force sensor. 2023 , 147, 115606 | Ο |
| 2 90 | Determination of bisphenol A, B, F and S in canned foodstuffs and canned pet foods by solid-phase microextraction with polytyramine nanocomposite fiber. 2023 , 117, 105088 | Ο |
| 289 | Variable thermal transport in black, blue, and violet phosphorene from extensive atomistic simulations with a neuroevolution potential. 2023 , 202, 123681 | 0 |
| 288 | Templating strategies for 3D-structured thermally conductive composites: Recent advances and thermal energy applications. 2023 , 133, 101054 | О |
| 287 | Graphene Thermal Interface Materials (State-of-the-Art and Application Prospects. 2022, 3, 169-181 | 2 |
| 286 | Droplet-Dispensed Graphene Oxide as Capacitive Sensing Elements for Flexible Pressure-Pulse Sensing Array. 2022 , 1-8 | O |
| 285 | Improved Current and Jitter Performances of Photoconductive Semiconductor Switch Based on Reduced Graphene Oxide/Metal Electrode. 2022 , 1-1 | 0 |
| 284 | Grafting macromolecular chains on the surface of graphene oxide through crosslinker for antistatic and thermally stable polyethylene terephthalate nanocomposites. 2022 , 12, 33329-33339 | O |
| 283 | Three woven structures of reduced graphene oxide conductive silk fabrics prepared by two different methods for electrical setting and sensing. 2022 , 52, 152808372211444 | O |
| 282 | Fabrication of a photoacoustic cell and thermal diffusivity measurement of graphene oxide using photoacoustic spectroscopy. 095440622211355 | Ο |

| 281 | Laser-Induced Graphene Enabled Additive Manufacturing of Multifunctional 3D Architectures with Freeform Structures. 2204990 | O |
|-----|---|---|
| 280 | Thermal-Resistance Effect of Graphene at High Temperatures in Nanoelectromechanical Temperature Sensors. 2022 , 13, 2078 | O |
| 279 | Assisting the mode-locking of a figure-9 fiber laser by thermal nonlinearity of graphene-decorated microfiber. | 0 |
| 278 | Synthesis and characterization of multi-responsive poly(N-isopropylacrylamide)-sodium alginate-graphene oxide composite hydrogels. | O |
| 277 | Effects of interfaces and ordered microstructures on thermal properties of graphene flakes/polyethylene composites. | O |
| 276 | Novel Nanomaterials for Hydrogen Production and Storage: Evaluating the Futurity of Graphene/Graphene Composites in Hydrogen Energy. 2022 , 15, 9085 | O |
| 275 | Tunable thermal properties of the biphenylene and the lateral heterostructure formed with graphene: A molecular dynamics investigation. 10, | 0 |
| 274 | Tunable circular polarization responses of twisted black phosphorus metamaterials. 2022 , 30, 47690 | O |
| 273 | Research on the actuation behavior of composite beam integrated with graphene-reinforced piezoelectric actuator. 1-12 | 0 |
| 272 | Nanoscale friction characteristics of layered-structure materials in dry and wet environments. 8, | O |
| 271 | Hyperbolic metamaterial structures based on graphene for THz super-resolution imaging applications. 2023 , 13, 247 | 1 |
| 270 | Conductive Textiles for Signal Sensing and Technical Applications. 2023 , 4, 1-39 | O |
| 269 | Investigation of Graphene/InN Nanowire based Mixed Dimensional Barristors with Widely Tunable Schottky Barrier for Highly Sensitive Multimodal Gas Sensing Applications. 2022 , 133238 | 0 |
| 268 | Anticorrosive properties of the double-layer PANI-(graphene oxide)/epoxy coating in protecting carbon steel in saltwater. | O |
| 267 | The 2D Semiconductor Library. 2022 , 1-31 | O |
| 266 | The modulation of electrothermal distribution by square spiral kirigami structure in graphite paper. 2022 , 56, 035503 | O |
| 265 | Thermal insulation and antioxidation of vertical graphene oxide-grafted carbon nanofiber aerogels with ceramic coating. | 0 |
| 264 | Disentangling Light-Induced Charge Transfer, Heating, and Strain Effects in WS 2 /Graphene Heterostructures. 2202013 | O |

| 263 | Ultralow Interfacial Thermal Resistance of Graphene Thermal Interface Materials with Surface Metal Liquefaction. 2023 , 15, | 1 |
|-----|--|---|
| 262 | Fabrication of DTC-g-PE-DA@GO@PU Chelator for Extraction of Precious and Toxic Metals from E-Waste. | O |
| 261 | Superior Thermal Conductivity of Graphene Film/Cu-Zr Alloy Composites for Thermal Management Applications. 2022 , 14, 56156-56168 | 0 |
| 260 | Thermal conductivity and shear strength characterisation of hybrid GNPs and silane functionalised BN as thermal conductive adhesive. 1-49 | 1 |
| 259 | Two-dimensional Materials in the Display Industry: Status and Prospects. 2205520 | 0 |
| 258 | The graphene nanoplatelets evolution and interface reaction of graphene nanoplatelets/TA15 composites by pre-sintering and hot extrusion. 2022 , 111783 | Ο |
| 257 | CO2-promoted transfer-free growth of conformal graphene. | 0 |
| 256 | A New Support Film for Cryo Electron Microscopy Protein Structure Analysis Based on Covalently Functionalized Graphene. 2205932 | O |
| 255 | Phase Transition of MoTe 2 Controlled in van der Waals Heterostructure Nanoelectromechanical Systems. 2205327 | Ο |
| 254 | Recent progress of two-dimensional heterostructures for thermoelectric applications. 2023 , 35, 073001 | 1 |
| 253 | Theoretical modeling and experimental verification of graphene piezoresistive properties under uniaxial strain in nanoelectromechanical pressure sensors. 2022 , 121, 243502 | 1 |
| 252 | A comprehensive review on ultrathin, multi-functionalized, and smart graphene and graphene-based composite protective coatings. 2022 , 110939 | 1 |
| 251 | Atomistic approach for predicting mechanical properties and creep behavior of graphene reinforced natural rubber composites. 2023 , 98, 015714 | 0 |
| 250 | Preparation, characterization, and biological assessment of functionalized reduced graphene oxideBilver nanocomposite. | O |
| 249 | Anisotropic phonon and magnon vibration and gate-tunable optoelectronic properties of nickel thiophosphite. | O |
| | | |
| 248 | Application of HTS in Material Preparation and New Devices. 2023 , 145-192 | O |
| 248 | Application of HTS in Material Preparation and New Devices. 2023, 145-192 Development of graphene oxide-based nano-delivery system for natural chemotherapeutic agent (Caffeic Acid). 2022, | 0 |

| 245 | Insights into the Stability of Graphene Oxide Aqueous Dispersions. 2022 , 12, 4489 | О |
|-----|--|---|
| 244 | Graphene wrapped hollow glass beads for polymer composites: From thermal insulators to conductors. 2022 , 109890 | O |
| 243 | Nanocomposite phase change materials for high-performance thermal energy storage: A critical review. 2022 , | 0 |
| 242 | Butterfly pea flower as a stabilizer for shear exfoliated graphene: green material for motion monitoring and Morse code sensor. | O |
| 241 | Recent Advances in Surface Modifications of Elemental Two-Dimensional Materials: Structures, Properties, and Applications. 2023 , 28, 200 | О |
| 240 | Ultrathin Ruthenium Films on Graphene Buffered SiO2 via Quasi Van der Waals Epitaxy. 2022 , 4, 5775-5788 | 1 |
| 239 | Electronic properties and tunability in graphene/3D-InP mixed-dimensional van der Waals heterostructure. 2023 , 18, | 0 |
| 238 | A Novel High-temperature Pressure Sensor Based on Graphene Coated by Si3N4. 2023 , 1-1 | O |
| 237 | Preparation of well-dispersed graphene oxide-silica nanohybrids/ poly(lactic acid) composites by melt mixing. 2023 , 118, 107912 | 1 |
| 236 | Liquid-Modulated Photothermal Phenomena in Porous Silicon Nanostructures Studied by ERaman Spectroscopy. 2023 , 13, 310 | 1 |
| 235 | Recent insights into BCN nanomaterials Isynthesis, properties and applications. | О |
| 234 | Polymer-based graphene composite molding: a review. 2023 , 13, 2538-2551 | O |
| 233 | Printed Electronics Based on 2D Material Inks: Preparation, Properties, and Applications toward Memristors. 2201156 | О |
| 232 | Phonon polarization deformation in graphene induced by substrate coupling strengths. 2023 , 122, 032201 | O |
| 231 | Spray-coating of graphene nanoplatelets on sisal fibers and its influence on electromechanical behavior of biocomposite laminates. 073168442311529 | 1 |
| 230 | Optoelectronic properties of monolayer and bilayer AgI: role of many-body interactions. | O |
| 229 | Thermal Interface Materials with High Thermal Conductivity and Low Young Modulus Using a Solid Diquid Metal Codoping Strategy. 2023 , 15, 3534-3542 | О |
| 228 | Study on mechanical properties of graphene modified cement mortar. 1-16 | O |

| 227 | Defect physics in 2D monolayer I-VII semiconductor AgI. 2023 , 100304 | О |
|-----|---|---|
| 226 | Thermoelectric properties of C2P4 monolayer: A first principle study. 2023 , 133, 015102 | Ο |
| 225 | Carbon-Based Nanoparticles and Their Surface-Modified Counterparts as MALDI Matrices. 2023, 95, 100-114 | О |
| 224 | Synthesis of Ag nanoparticles dispersed on Co3O4BD porous reduced graphene oxide and their application for electrochemical sensing of hydrogen peroxide. | Ο |
| 223 | Study on Pulse-Reverse Electroplating Process for the Manufacturing of a Graphene-Based Coating. 2023 , 16, 854 | 1 |
| 222 | Porous functional materials with excellent solar-thermal and electro-thermal properties for desalination of saline water. 2023 , 123184 | 1 |
| 221 | Remarkable Thermal Performance Enhancement of Micro Heat Pipes with Graphene-Nanoplatelet Nano-Wicks. 2023 , 13, 232 | Ο |
| 220 | Graphene oxide for photonics, electronics and optoelectronics. | 4 |
| 219 | Synthesis and mechanical properties of graphene nanoparticles reinforced with aluminium alloy matrix composites. | O |
| 218 | Efficient One-Pot Solvothermal Synthesis and Characterization of Zirconia Nanoparticle-Decorated Reduced Graphene Oxide Nanocomposites: Evaluation of Their Enhanced Anticancer Activity toward Human Cancer Cell Lines. 2023 , 8, 2406-2420 | О |
| 217 | Effects of phonon bandgap on phonon-phonon scattering in ultrahigh thermal conductivity Ephase TaN. | 0 |
| 216 | Development of Tailored Graphene Nanoparticles: Preparation, Sorting and Structure Assessment by Complementary Techniques. 2023 , 28, 565 | 1 |
| 215 | An eco-friendly solution for liquid phase exfoliation of graphite under optimised ultrasonication conditions. 2023 , 204, 434-446 | 0 |
| 214 | Calculation of tunable electronic and optical properties of AlSb/CdSe heterojunction based on first principles. 2023 , 614, 156261 | 0 |
| 213 | New modeling on vibrations and bifurcations of FGGP reinforced pretwisted composite rotating blade under axial aerodynamic force: Theoretical and numerical researches. 2023 , 184, 110523 | 0 |
| 212 | Fabrication and spectroscopic investigation of sandwich-like ZnO:rGO:ZnO:rGO:ZnO structure by layer-by-layer approach. 2023 , 149, 110383 | O |
| 211 | Vertically-oriented graphene-boron nitride skeletons using graphene oxide as inorganic adhesives for high-efficiency thermal conduction of polymeric composites with electrical insulation and compressibility. 2023 , 233, 109915 | 0 |
| 210 | Graphene oxide additive-driven widening of microporous biochar for promoting water pollutant capturing. 2023 , 205, 40-53 | O |

| 209 | Microcracking monitoring and damage detection of graphene nanoplatelets-cement composites based on acoustic emission technology. 2023 , 18, e01844 | 0 |
|-----|--|---|
| 208 | Flexible temperature sensors based on two-dimensional materials for wearable devices. | Ο |
| 207 | Microstructure and Interfacial Bonding Evolution of Cold Spray Deposited Graphene-Reinforced Composite Feedstock on AZ80 Magnesium Substrate. | 0 |
| 206 | The Research Progress of Graphene-Rubber Nanocomposites. 2022 , 4, 83-85 | O |
| 205 | Thermal Transport in 2D Materials. 2023 , 13, 117 | 0 |
| 204 | The Room Temperature Fracture Behaviors of GNPs/TA15 Composites by Pre-Sintering and Hot Extrusion. 2023 , 16, 318 | O |
| 203 | Interfacial Characteristics of Graphene-Reinforced Iron Composites: A Molecular Dynamics Study. 2023 , 13, 27 | 0 |
| 202 | Spectroscopy and carrier dynamics of one-dimensional nanostructures. 2022 , 43, 121201 | O |
| 201 | Comparative Study of Optimization of Electron Glass using Extremal and Quenching Algorithms. 2022 , | 0 |
| 200 | Carbon nanomaterials: Fundamentals, functionalization, and applications. 2023, 91-105 | O |
| 199 | Engineered nanostructures: an introduction. 2023 , 1-43 | 0 |
| 198 | Borophene Embedded Cellulose Paper for Enhanced Photothermal Water Evaporation and Prompt Bacterial Killing. 2205809 | O |
| 197 | Can graphene improve the thermal conductivity of copper nanofluids?. | 0 |
| 196 | 1D and 2D Field Effect Transistors in Gas Sensing: A Comprehensive Review. 2206100 | O |
| 195 | Modeling the effect of chirality on thermal transport in a pillared-graphene structure. | 0 |
| 194 | Recent advances in single crystal narrow band-gap semiconductor nanomembranes and their flexible optoelectronic device applications: Ge, GeSn, InGaAs, and 2D materials. | O |
| 193 | Effects of Channel Length Scaling on the Electrical Characteristics of Multilayer MoS2 Field Effect Transistor. 2023 , 14, 275 | O |
| 192 | Multifunctional polymer/carbonaceous nanocomposites for aerospace applications. 2023, 55-83 | 2 |

| 191 | Nanothermites: Developments and Future Perspectives. 2023 , 219-251 | 0 |
|-----|---|---|
| 190 | Application of graphene in energy storage devices. 2023 , 135-156 | O |
| 189 | Carbon quantum dots: An overview and potential applications in terahertz domain. 2023, 397-421 | О |
| 188 | Heat transport properties of novel carbon monolayer (net-Y): a comparative study with graphene. 2023 , 25, 4915-4922 | O |
| 187 | Modified Technogenic Asphaltenes as Enhancers of the Thermal Conductivity of Paraffin. 2023, 28, 949 | О |
| 186 | Application of smart materials in biosensors for cancer diagnosis. 2023, 119-147 | O |
| 185 | Graphene-based nanomaterials for CO2 capture and conversion. 2023, 211-243 | 0 |
| 184 | Computational modeling of thermal transport in bulk and nanostructured energy materials and systems. 2023 , 151-170 | Ο |
| 183 | Carbon nanotubes and other carbon nanomaterials: Prospects for functionalization. 2023, 107-147 | 0 |
| 182 | Funnel-shaped electronic structure and enhanced thermoelectric performance in ultralight Cx(BN)1☑ biphenylene networks. 2023 , 107, | 1 |
| 181 | Effect of Graphene on the Microstructure Evolution and Mechanical Properties of AlflOSiICufl.5Fe Aluminum Matrix Composites. | 1 |
| 180 | Raman spectroscopic study of the layer-dependent Davydov splitting and thermal conductivity of chemically vapor deposited two-dimensional MoSe2. 2023 , 122, 042201 | Ο |
| 179 | Modeling phonons in nanomaterials. 2023 , 125-149 | 0 |
| 178 | Theoretical study on the interactions of Anemopsis californica compounds with graphene monolayers: A DFT perspective. | Ο |
| 177 | From two-dimensional materials to polymer nanocomposites with emerging multifunctional applications: A critical review. | 1 |
| 176 | Nonlinear oscillations, chaotic dynamics, and stability analysis of bilayer graphene-like structures. 2023 , 33, 013136 | Ο |
| 175 | Electrodeposition of Tin-Reduced Graphene Oxide Composite from Deep Eutectic Solvents Based on Choline Chloride and Ethylene Glycol. 2023 , 13, 203 | 0 |
| 174 | The Effect of Few-Layer Graphene on the Complex of Hardness, Strength, and Thermo Physical Properties of Polymer Composite Materials Produced by Digital Light Processing (DLP) 3D Printing. 2023 , 16, 1157 | 1 |

| 173 | On the Problem of the Proton Permeability of Graphene and Borophene in Different Dielectric Media. 2022 , 48, 316-321 | O |
|-----|--|---|
| 172 | Prospects and future perspectives of electronic materials for solar energy applications. 2023 , 281-296 | O |
| 171 | Janus \mathbb{P} dXY (X/Y = S, Se, Te) materials with high anisotropic thermoelectric performance. 2023 , 15, 5964-5975 | О |
| 170 | Graphene-Based Touch Sensors. 2023 , 54-70 | O |
| 169 | Defect engineering of two-dimensional materials for advanced energy conversion and storage. 2023 , 52, 1723-1772 | 1 |
| 168 | 2D nanomaterials as lubricant additives. 2023 , 97-112 | O |
| 167 | Role of nanotechnology in cancer therapies: recent advances, current issues, and approaches. 2023 , 73-95 | O |
| 166 | Graphene-based nanomaterials for theranostic applications. 2023 , 83-102 | O |
| 165 | Molecular dynamic studies into the comparative optimization of thermo-mechanical characters of nano-composites of Ag and Cu reinforced by Graphene. 2023 , 18, e0269566 | 0 |
| 164 | Chip-level thermal management in GaN HEMT: Critical review on recent patents and inventions. 2023 , 273, 111958 | 1 |
| 163 | Complete Determination of Thermoelectric and Thermal Properties of Supported Few-Layer Two-Dimensional Materials. 2023 , 19, | 0 |
| 162 | SiC/graphene reinforced aluminum metal matrix composites prepared by powder metallurgy: A review. 2023 , 91, 10-43 | 1 |
| 161 | Graphene oxide as a promising nanofiller for polymer composite. 2023 , 37, 102747 | 1 |
| 160 | Rapid direct growth of graphene on single-crystalline diamond using nickel as catalyst. 2023 , 770, 139766 | O |
| 159 | A comparative investigation into the thermoelectric properties of doped graphene nanoribbons in different doping manners. 2023 , 135, 109889 | 0 |
| 158 | Microstructure and properties of graphene oxide reinforced copper-matrix composite foils fabricated by ultrasonic assisted electrodeposition. 2023 , 872, 144995 | O |
| 157 | First-principles study of electronic and optical properties of NH3-adsorbed Sc2CO2 monolayer and its application in gas sensors. 2023 , 24, 173-184 | О |
| 156 | Understanding electron transport on hybrid perovskite/carbon allotropes for energy conversion and storage applications: A first principles study. 2023 , 255, 180-190 | O |

| 155 | Ball mill enhances the functionalization of boron nitride: The application for polyimide fillers. 2023 , 39, 100489 | O |
|-----|--|---|
| 154 | A review on the mechanics of graphene nanoplatelets reinforced structures. 2023, 186, 103831 | O |
| 153 | Multivalent cobalt species supported on graphene aerogel for degradation of sulfamethoxazole via high-valent cobalt-oxo species. 2023 , 463, 142367 | 0 |
| 152 | Improvement in compressive stiffness of graphene aerogels by sandwiching carbon nanotubes. 2023 , 135, 109897 | O |
| 151 | A comprehensive review of heat transfer enhancement of heat exchanger, heat pipe and electronic components using graphene. 2023 , 45, 102874 | O |
| 150 | Optimizing the strength and electrical conductivity of graphene reinforced Cullriz alloy fabricated by powder metallurgy and spark plasma sintering. 2023 , 300, 127524 | O |
| 149 | Boosting solar-driven volatile organic compounds desorption via the synergy of NH2-UiO-66 with hollow polypyrrole nanotube. 2023 , 464, 142503 | O |
| 148 | Stability, mechanical and electronic properties of Occ carbon allotropes: Four new tetragonal 3D superhard carbon crystals. 2023 , 135, 109838 | O |
| 147 | Anisotropic and high thermal conductivity in monolayer quasi-hexagonal fullerene: A comparative study against bulk phase fullerene. 2023 , 206, 123943 | O |
| 146 | Construction of functionalized graphene nanoplatelets/SiC nanowires hybrid skeleton for epoxy composites with enhanced thermal conductivity and thermomechanical properties. 2023 , 162, 112189 | O |
| 145 | Effectiveness of the use of nanofluids in concentrated solar power plants Œlectrical and environmental assessment. 2023 , 45, 10-20 | O |
| 144 | Raman spectroscopy of carbon materials and their composites: Graphene, nanotubes and fibres. 2023 , 135, 101089 | O |
| 143 | Calculation of tunable electronic and optical properties of AlP/InSe heterostructure based on first principles. 2023 , 160, 107443 | O |
| 142 | Electrical thermo-optic tuning of ultrahigh-Q silica microsphere with laser-induced graphene. 2023 , 536, 129371 | O |
| 141 | Three-dimensional multimodal porous graphene-carbonized wood for highly efficient solar steam generation. 2023 , 57, 103199 | O |
| 140 | Mechanical and tribological properties of Ti6Al4V alloy reinforced with Cu-coated multilayer graphene. 2023 , 35, 105698 | O |
| 139 | Biaxial strain tunable electronic properties, photocatalytic properties and quantum capacitance of Sc2CO2 MXenes. 2023 , 212, 112016 | O |
| 138 | Cellulose Acetate polymer spectroscopic study comprised LaFeO3 perovskite and graphene as a UV-to-visible light converter used in several applications. 2023 , 1281, 135153 | O |

| 137 | Simultaneous promotion of surface active sites and electron conductivity in carbon by interfacial engineered oxygen transfer for sodium storage. 2023 , 274, 118703 | O |
|-----|--|---|
| 136 | Microstructural evolution, strengthening and high thermal conductivity mechanisms of FeCrV-based medium-entropy alloys with Laves phase precipitation formed by adding minimal Ti. 2023 , 200, 112860 | O |
| 135 | Thermal stability of twin graphene: A Reaxff molecular dynamics study. 2023, 623, 157038 | O |
| 134 | Photocatalytic performances of manganese oxide nanorods decorated graphene oxide nanocomposites. 2023 , 135, 109820 | O |
| 133 | Obtaining and characterization of bioplastics based on potato starch, aloe, and graphene. 2022 , 32, | O |
| 132 | Graphene nanoplatelets composite resin curing and thermal diffusivity determination by photothermal techniques. 2023 , 721, 179453 | O |
| 131 | Effect of graphene interface modification on the mechanical properties of graphene-epoxy nanocomposite. 2023 , | O |
| 130 | Enhancement of the magnetic and mechanical properties by introducing element carbon for Ti-based alloy. 2023 , 568, 170438 | O |
| 129 | Tunable Interlayer Interactions in Reduced Graphene Oxide Paper. 2023, 15, 7627-7634 | O |
| 128 | Orientated growth the 3D diamond/graphene hybrid arrays and the application in thermal interface materials. 2022 , 2, 263-270 | О |
| 127 | Aviyonik Kutularfi finalatfida Kullanfin Malzemelerin Solitma Berindeki Etkisi. | O |
| 126 | Improved Electrical and Thermal Conductivities of Graphene©arbon Nanotube Composite Film as an Advanced Thermal Interface Material. 2023 , 16, 1378 | O |
| 125 | Graphene-reinforced metal matrix composites: fabrication, properties, and challenges. 2023 , 125, 2925-2965 | O |
| 124 | In-plane thermoelectric properties of graphene/xBN/graphene van der Waals heterostructures. 2023 , 35, 155701 | O |
| 123 | An Advanced Strategy to Enhance TENG Output: Reducing Triboelectric Charge Decay. 2209895 | O |
| 122 | Sustainable Removal of Antibiotic Drugs from Wastewater Using Different Adsorbents Concise Review. 2023 , 8, | O |
| 121 | The preparation and study of functionalized graphene oxide/self-healing waterborne polyurethane composites. | 0 |
| 120 | Ultra-High Interfacial Thermal Conductance via Double hBN Encapsulation for Efficient Thermal Management of 2D Electronics. 2023 , 19, 2205726 | О |

| 119 | Fabrication of interdigitated electrodes of graphene oxide/silica by femtosecond laser-induced forward transfer for sensing applications. 2023 , 133, 053103 | 0 |
|--------------------------|---|-------------|
| 118 | Synergistic Effects of Carbon Nanotube (CNT) and Reduced Graphene Oxide (RGO) on Mechanical and Thermal Properties of ZK61 Alloy. | O |
| 117 | Graphene-based catalysts for carbon monoxide oxidation: Experimental and theoretical insights. 2023 , | О |
| 116 | Thermoset-Based Composite Bipolar Plates in Proton Exchange Membrane Fuel Cell. 2023 , 137-211 | O |
| 115 | From Protosolar Space to Space Exploration: The Role of Graphene in Space Technology and Economy. 2023 , 13, 680 | 2 |
| 114 | Preparation and Heat Dissipation Performance of Vertical Graphene Nanosheets/Carbon Fibers Composite Film. 2023 , 13, 407 | О |
| 113 | Thermal Transport Study in a Strained Carbon Nanotube and Graphene Junction Using Phonon Wavepacket Analysis. 2023 , 9, 21 | Ο |
| 112 | Graphene passivation effect on copper cavity resonator preserves Q-factor. 2023 , 34, 205704 | O |
| 111 | Phononics of graphene, layered materials, and heterostructures. 2023 , 122, 070401 | Ο |
| | | |
| 110 | Progress in 2D materials based Nanolubricants: A review. 2023 , 38, 100485 | 1 |
| 110 | Progress in 2D materials based Nanolubricants: A review. 2023 , 38, 100485 Ultra-high thermal conductivity of two-dimensional C23. 2023 , 34, 175704 | 0 |
| | | |
| 109 | Ultra-high thermal conductivity of two-dimensional C23. 2023 , 34, 175704 Cement Composites with Carbon-Based Nanomaterials for 3D Concrete Printing Applications DA | 0 |
| 109 | Ultra-high thermal conductivity of two-dimensional C23. 2023 , 34, 175704 Cement Composites with Carbon-Based Nanomaterials for 3D Concrete Printing Applications IA Review. 2023 , 23, Charge carrier density dependent Raman spectra of graphene encapsulated in hexagonal boron | 0 |
| 109 | Ultra-high thermal conductivity of two-dimensional C23. 2023, 34, 175704 Cement Composites with Carbon-Based Nanomaterials for 3D Concrete Printing Applications IA Review. 2023, 23, Charge carrier density dependent Raman spectra of graphene encapsulated in hexagonal boron nitride. 2023, 107, | 0 0 |
| 109 108 107 | Ultra-high thermal conductivity of two-dimensional C23. 2023, 34, 175704 Cement Composites with Carbon-Based Nanomaterials for 3D Concrete Printing Applications IA Review. 2023, 23, Charge carrier density dependent Raman spectra of graphene encapsulated in hexagonal boron nitride. 2023, 107, Design and realization of interface strengthening to GNPs/YSZ nanocomposite coating. 2023, | o o o |
| 109 108 107 106 | Ultra-high thermal conductivity of two-dimensional C23. 2023, 34, 175704 Cement Composites with Carbon-Based Nanomaterials for 3D Concrete Printing Applications IA Review. 2023, 23, Charge carrier density dependent Raman spectra of graphene encapsulated in hexagonal boron nitride. 2023, 107, Design and realization of interface strengthening to GNPs/YSZ nanocomposite coating. 2023, Development of Conductive Polymers as Potential Sensor Material for Wearable Electronics. 2023, 650-657 Study of magnetoplasmons in graphene rings with two-dimensional finite element method. 2023, | 0 0 0 |

| 101 | MXene-Decorated Smart Textiles with the Desired Mid-Infrared Emissivity for Passive Personal Thermal Management. 2023 , 15, 12032-12040 | O |
|-----|--|---|
| 100 | Lightning Strike Protection: Current Challenges and Future Possibilities. 2023 , 16, 1743 | O |
| 99 | Origin of Tearing Paths in Transferred Graphene by H2 Bubbling Process and Improved Transfer of Tear-Free Graphene Films U sing a H eat Press. 2022 , 32, 522-527 | О |
| 98 | Detonation Synthesis as a Modern Eco-Friendly Method for Obtaining 2D Nanocarbons. 2022 , 92, 3093-3099 | O |
| 97 | Abnormal strain-dependent thermal conductivity in biphenylene monolayer using machine learning interatomic potential. 2023 , 122, 082202 | 0 |
| 96 | Dephasing effect promotes the appearance of quantized Hall plateaus. 2023 , 25, 033001 | O |
| 95 | Effects of graphene, alumina, and their hybrid on dynamic mechanical behavior of epoxy-based nanocomposites. 2023 , 57, 1557-1570 | 0 |
| 94 | A review of low-cost approaches to synthesize graphene and its functional composites. 2023 , 58, 4359-4383 | O |
| 93 | Insight into the Electronic Properties of Semiconductor Heterostructure Based on Machine Learning and First-Principles. 2023 , 15, 12462-12472 | 0 |
| 92 | Graphene - Calculation of Specific Surface Area. 91-97 | O |
| 91 | Recent trends in graphene-based materials for pharmaceuticals wastewater treatment. 2023, 53-68 | 0 |
| 90 | First-Principles Investigation on Phonon Mode Conversion of Thermal Transport in Silicene Under Tensile Strain. 2023 , 44, | O |
| 89 | Plasmon-Enhanced Raman Scattering by Multilayered Graphene at the Micro- and Nanoscale: SERS and TERS Analysis. 2023 , 127, 5013-5020 | O |
| 88 | Band structure engineering and transport properties of graphene/BN van der Waals heterostructures. 2023 , 46, 106315 | O |
| 87 | A review on graphene oxide: 2D colloidal molecule, fluid physics, and macroscopic materials. 2023 , 10, 011311 | 0 |
| 86 | Synthesis of Boron-Doped Carbon Nanomaterial. 2023 , 16, 1986 | 1 |
| 85 | Current Research Trends of Graphene Nanotechnology. 2023 , 106-123 | O |
| 84 | Graphite Pellicle: Physical Shield for Next-Generation EUV Lithography Technology. 2023, 10, | O |

| 83 | Effects of surface defects on mechanical properties and fracture mechanism of gallium selenide/graphene heterostructure. 2023 , 180, 104610 | О |
|----|--|--------------|
| 82 | Two-Dimensional AMgB (A = Na, K; B = P, As, Sb, Bi) with Promising Optoelectronic and Thermoelectric Performances. 2023 , 5, 1405-1419 | O |
| 81 | Environmentally sustainable implementations of two-dimensional nanomaterials. 11, | O |
| 80 | Highly-conductive, durability and flexible graphene-metal brazed strip and its heat-dissipation performance. 2023 , 49, 18671-18677 | O |
| 79 | Enhanced thermal properties of epoxy composites by constructing thermal conduction networks with low content of three-dimensional graphene. 2023 , 34, 235708 | O |
| 78 | Interfacial contact barrier and charge carrier transport of MoS2/metal(001) heterostructures. 2023 , 25, 9548-9558 | O |
| 77 | Vacuum-Filtration-Assisted Ice-Templated Freeze Drying for Preparing Capacitive Graphene Aerogel for Thermal Management. 2023 , 13, 458 | O |
| 76 | Contemporary updates on bioremediation applications of graphene and its composites. 2023 , 30, 48854-486 | 867 0 |
| 75 | Superwetting graphene-based materials: From wettability regulation to practical applications. 2023 , 29, 101452 | O |
| 74 | A novel ultra-thin vapor chamber with composite wick for portable electronics cooling. 2023 , 226, 120340 | O |
| 73 | Molybdenum disulfide under extreme conditions: An ab initio study on its melting. 2023, 133, 105102 | O |
| 72 | Chemical Sensors Based on Graphene and 2D Graphene Analogs. 2200057 | O |
| 71 | Efficiency of extremal optimization to find the ground state of Coulomb glass system at small disorder. 2023 , 96, | O |
| 70 | Study on Interface Mechanical Properties of Graphene/Copper Matrix Composites. 2023, 13, 3559 | O |
| 69 | A Critical Review on the Thermal Transport Characteristics of Graphene-Based Nanofluids. 2023 , 16, 2663 | O |
| 68 | Graphene-like Carbon Structure Synthesis from Biomass Pyrolysis: A Critical Review on Feedstock P rocess P roperties Relationship. 2023 , 9, 31 | O |
| 67 | Metal functionalization of two-dimensional nanomaterials for electrochemical carbon dioxide reduction. 2023 , 15, 6456-6475 | O |
| 66 | Building efficient thermal transport at graphene/polypropylene interfaces by non-covalent functionalized graphene. 2023 , 469, 128766 | O |

| 65 | Tuning the Magnetic Anisotropy of CoN-Doped Graphene. | 0 |
|----|---|---|
| 64 | Tensile strain and finite size modulation of low lattice thermal conductivity in monolayer TMDCs (HfSe2 and ZrS2) from first-principles: a comparative study. 2023 , 25, 9225-9237 | O |
| 63 | Synergistic effect between graphene nanoplatelets and carbon black to improve the thermal and mechanical properties of natural rubber nanocomposites. 2022 , 61, 1578-1592 | 0 |
| 62 | Dynamic modulation of thermal emission A Tutorial. 2023, 133, 111101 | 1 |
| 61 | Tunable growth of one-dimensional graphitic materials: graphene nanoribbons, carbon nanotubes, and nanoribbon/nanotube junctions. 2023 , 13, | 0 |
| 60 | Potential progress in SnO2 nanostructures for enhancing photocatalytic degradation of organic pollutants. 2023 , 177, 106642 | O |
| 59 | Mechanical properties of nanocomposition ceramics with graphene. 2023, | 0 |
| 58 | Tunable Electronic Properties of Substitutionally Doped CSb Monolayer. | O |
| 57 | Potential of graphene-modified nanostructures for multifunctional personal protective clothing. 2023 , 195-218 | 0 |
| 56 | Calotropis gigantea Fiber-Based Sensitivity-Tunable Strain Sensors with Insensitive Response to Wearable Microclimate Changes. | O |
| 55 | The study on the high-temperature performances of a graphene MEMS pressure sensor. 2023, 34, | 0 |
| 54 | Microporous Materials for Separation Membranes for Chromatography. 171-184 | 0 |
| 53 | Unique Electronic Properties of the Twisted Bilayer Graphene. | 0 |
| 52 | Facile Electrochemical Approach Based on Hydrogen-Bonded MOFs-Derived Tungsten Ethoxide/Polypyrrole-Reduced GO Nanocrystal for ppb Level Ammonium Ions Detection. 2023 , 11, 201 | O |
| 51 | Graphene and boron nitride foams for smart functional applications. | 0 |
| 50 | Thrust characteristics of nano-carbon/Al/oxygenated salt nanothermites for micro-energetic applications. 2023 , | O |
| 49 | Van Der Waals Metal Contacts for Electronic and Optoelectronic Devices. | 0 |
| 48 | A molecular dynamics study of water confined in between two graphene sheets under compression. 2023 , 25, | Ο |

(2023-2023)

| 47 | The Efficiency Study of Graphene Synthesis on Copper Substrate via Chemical Vapor Deposition Method with Methanol Precursor. 2023 , 13, 1136 | 0 |
|----|---|---|
| 46 | Recent approach in producing transparent conductive films (TCFs). | O |
| 45 | High Anti-ablation Performance of Graphene/CuW Composite for Ultrahigh Voltage Electrical Contacts. 2023 , 60-70 | O |
| 44 | Functional dyeable polypropylene fabric development and process parameter optimization. Part II: Development of graphene thermal insulation dyeable polypropylene fabric with process parameter optimization. 004051752211477 | O |
| 43 | Ferromagnetic vanadium disulfide VS2 monolayers with high Curie temperature and high spin polarization. 2023 , 25, 10143-10154 | О |
| 42 | Exploring the electronic and optical characteristics of PEO/In2O3 structures for renewable and electronics applications. 2023, | O |
| 41 | Status and Opportunities of Zinc Ion Hybrid Capacitors: Focus on Carbon Materials, Current Collectors, and Separators. 2023 , 15, | О |
| 40 | Effects of Crack Formation on the Mechanical Properties of Bilayer Graphene: A Comparative Analysis. 2023 , 13, 584 | O |
| 39 | Extreme mechanical tunability in suspended MoS2 resonator controlled by Joule heating. 2023, 7, | О |
| 38 | Room-Temperature Gate Voltage Modulation of Plasmonic Nanolasers. 2023 , 17, 6488-6496 | O |
| 37 | Thermal and Electrical Conductivity of Copper-Graphene Heterosystem: An Effect of Strain and Thickness. | О |
| 36 | Nano Engineered Paraffin-Based Phase Change Material for Building Thermal Management. 2023 , 13, 900 | О |
| 35 | Emerging Versatile Two-Dimensional MoSi 2 N 4 Family. | O |
| 34 | Study of the electroplating process parameters on the electrical resistance of an aluminium alloy with a Cu-graphene-based coating. 1-12 | O |
| 33 | Graphene nanoplatelet/cellulose acetate film with enhanced antistatic, thermal dissipative and mechanical properties for packaging. | О |
| 32 | Vertical-Graphene-Assisted Chemical Vapor Deposition for Fast Growth of Macroscaled Graphene Grains. 2023 , 127, 6991-6997 | O |
| 31 | C4N4: A symmetry-protected semimetal. 2023 , 224, 112165 | 0 |
| 30 | ???????????????. 2023 , 52, 20220371 | O |

| 29 | Electrospraying Graphene Nanosheets on Polyvinyl Alcohol Nanofibers for Efficient Thermal Management Materials. 2023 , 6, 6241-6246 | О |
|----|---|---|
| 28 | The role of chemical microstructures and compositions on the actuation performance of dielectric elastomers: A materials research perspective. | O |
| 27 | Effect of Annealing on Graphene/PVDF Nanocomposites. 2023, 8, 13876-13883 | O |
| 26 | Synthesis of ultra-thin graphene oxide/ reduced graphene oxide nanocomposites and examine their properties. 2023 , | О |
| 25 | A review on energy conversion applications of graphene-based nanomaterials and environmental remediation. 2023 , | 0 |
| 24 | Graphene-based conformal coating for heat dissipation on printed circuit boards. 2023 , 229, 120562 | O |
| 23 | Multiscale architected porous materials for renewable energy conversion and storage. 2023 , 59, 102768 | O |
| 22 | All-Optical Spatial Mode-Selective Switch Based on Graphene-Embedded Vertical Directional Couplers. 2022 , | O |
| 21 | Effect of Graphite Nanoplatelet Size and Dispersion on the Thermal and Mechanical Properties of Epoxy-Based Nanocomposites. 2023 , 13, 1328 | O |
| 20 | Graphene-based Composite Materials as Catalyst for Organic Transformations. 2023, 8, | O |
| 19 | Thermally induced mechanical strain of graphene on copper and other substrates. 2023, 111371 | O |
| 18 | An Analysis for Thermal Conductivity of Graphene/Polymer Nanocomposites. 2023, 684-690 | O |
| 17 | Advances in the Field of Two-Dimensional Crystal-Based Photodetectors. 2023, 13, 1379 | O |
| 16 | Anisotropic thermal conductivity in two-dimensional van der Waals crystals. 2023, 26, 106-120 | O |
| 15 | Heat Sink Enhancement of Decalin by Symmetrical Imidazolium Ionic Liquid-Capped Metal Nanoparticles. | O |
| 14 | Desorption of chemical species during thermal reduction of graphene oxide films. 2023 , 129524 | O |
| 13 | Two-dimensional Mg2Si-111: A direct bandgap semiconductor with excellent optical response properties predicted by first-principles calculations. 2023 , 128849 | 0 |
| 12 | Nanoresonator vibrational behaviour analysis of single- and double-layer graphene with atomic vacancy and pinhole defects. 2023 , 29, | O |

CITATION REPORT

| 11 | Magic angle in thermal conductivity of twisted bilayer graphene. 2023 , 101093 | О |
|----|--|---|
| 10 | Graphullerite: A Thermally Conductive and Remarkably Ductile Allotrope of Polymerized Carbon. | O |
| 9 | A review of nitrogen-doped carbon materials for lithium-ion battery anodes. 2023 , 38, 247-278 | О |
| 8 | Prediction and Control of Thermal Transport at Defective State Gr/h-BN Heterojunction Interfaces. 2023 , 13, 1462 | O |
| 7 | Tunable electronic and optical properties of MoTe2/InSe heterostructure via external electric field and strain engineering. 2023 , 35, 315501 | О |
| 6 | Charge and heat transport of doped 8Pmmn borophene with and without relaxation time approximation. 2023 , 107, | O |
| 5 | Modeling of Pristine and Intercalation Doped Multilayer Graphene Nanoribbon Conductors with Energy-per-Layer Screening. 2023 , 99-108 | О |
| 4 | Integration of an Axially Continuous Graphene with Functional Metals for High-Temperature Electrical Conductors. | O |
| 3 | Thermal Expansion and Thermal Conductivity of Ni/Graphene Composite: Molecular Dynamics Simulation. 2023 , 16, 3747 | О |
| 2 | Structuring thermal transport in pristine graphene with h-BN nanorings. 2023 , 180, 111414 | O |
| 1 | The potential of functionalized graphene-based composites for removing heavy metals and organic pollutants. 2023 , 53, 103809 | 0 |