

# CITATION REPORT

List of articles citing

Fine structure constant defines visual transparency of graph

DOI: 10.1126/science.1156965  
Science, 2008, 320, 1308.

**Source:** <https://exaly.com/paper-pdf/43590082/citation-report.pdf>

**Version:** 2024-04-20

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

| #    | Paper  | IF | Citations |
|------|--|----|-----------|
| 2257 | Controlled Spacing of Few-Layer Graphene Sheets Using Molecular Spacers: Capacitance That Scales with Sheet Number.          |    |           |
| 2256 | Room Temperature Graphene Mid-Infrared Bolometer with a Broad Operational Wavelength Range.                                  |    |           |
| 2255 | .  |    |           |
| 2254 | Gate Switching of Ultrafast Photoluminescence in Graphene.   |    |           |
| 2253 | In Pursuit of 2D Materials for Maximum Optical Response.   |    |           |
| 2252 | A vertical profile of turbulence in the Atlantic air mass measured by balloon-borne radiosondes. <b>1974</b> , 79, 4545-4549 |    | 13        |
| 2251 | Raman spectroscopy and imaging of graphene. <b>2008</b> , 1, 273-291   |    | 989       |
| 2250 | High-energy optical conductivity of graphene determined by reflection contrast spectroscopy. <b>2008</b> , 78,               |    | 25        |
| 2249 | Graphene terahertz generators for molecular circuits and sensors. <b>2008</b> , 112, 13699-705                               |    | 65        |
| 2248 | Measurement of the optical conductivity of graphene. <b>2008</b> , 101, 196405   |    | 1190      |
| 2247 | Free-standing graphene at atomic resolution. <b>2008</b> , 3, 676-81   |    | 530       |
| 2246 | Dirac charge dynamics in graphene by infrared spectroscopy. <b>2008</b> , 4, 532-535   |    | 983       |
| 2245 | Orientation dependence of the optical spectra in graphene at high frequencies. <b>2008</b> , 77,                             |    | 67        |
| 2244 | Quasi-transverse electromagnetic modes supported by a graphene parallel-plate waveguide. <b>2008</b> , 104, 084314           |    | 314       |
| 2243 | Optical properties of graphene antidot lattices. <b>2008</b> , 77,   |    | 98        |
| 2242 | Optical properties of graphene. <b>2008</b> , 129, 012004  |    | 586       |
| 2241 | Conductivity of suspended and non-suspended graphene at finite gate voltage. <b>2008</b> , 78,                               |    | 98        |

|      |  |     |
|------|--|-----|
| 2240 | Optical properties of graphene: The Fermi-liquid approach. <b>2008</b> , 84, 37001   | 53  |
| 2239 | Determination of the electronic structure of bilayer graphene from infrared spectroscopy. <b>2008</b> , 78,                              | 234 |
| 2238 | Nonlinear electromagnetic response of graphene: frequency multiplication and the self-consistent-field effects. <b>2008</b> , 20, 384204 | 283 |
| 2237 | Measurement of the optical absorption spectra of epitaxial graphene from terahertz to visible. <b>2008</b> , 93, 131905                  | 383 |
| 2236 | Macroscopic graphene membranes and their extraordinary stiffness. <b>2008</b> , 8, 2442-6  | 528 |
| 2235 | The infrared conductivity of graphene on top of silicon oxide. <b>2008</b> , 84, 38002   | 48  |
| 2234 | Optical conductivity of graphene in the visible region of the spectrum. <b>2008</b> , 78,  | 606 |
| 2233 | Electron beam nanosculpting of suspended graphene sheets. <b>2008</b> , 93, 113107   | 469 |
| 2232 | Strong terahertz conductance of graphene nanoribbons under a magnetic field. <b>2008</b> , 93, 041106                                    | 68  |
| 2231 | Nonequilibrium carriers in intrinsic graphene under interband photoexcitation. <b>2008</b> , 78,   | 48  |
| 2230 | Long-range correlations in disordered graphene. <b>2008</b> , 78,  | 16  |
| 2229 | TRANSPORT IN A CLEAN GRAPHENE SHEET AT FINITE TEMPERATURE AND FREQUENCY. <b>2008</b> , 22, 2529-2536                                     | 34  |
| 2228 | Tunable graphene system with two decoupled monolayers. <b>2008</b> , 93, 172108  | 93  |
| 2227 | Spectroscopic signatures of massless gap opening in graphene. <b>2008</b> , 78,  | 22  |
| 2226 | Observation of distinct electron-phonon couplings in gated bilayer graphene. <b>2008</b> , 101, 257401                                   | 114 |
| 2225 | Self-Standing Graphene Sheets Prepared with Chemical Vapor Deposition and Chemical Etching. <b>2009</b> , 7, 837-840                     | 9   |
| 2224 | Thermal-radiation-induced nonequilibrium carriers in intrinsic graphene. <b>2009</b> , 79,   | 5   |
| 2223 | Terahertz absorption window in bilayer graphene. <b>2009</b> ,   |     |

|      |   |      |
|------|---|------|
| 2222 | Rabi oscillations in Landau-quantized graphene. <b>2009</b> , 102, 036803   | 25   |
| 2221 | Enhanced optical conductivity of bilayer graphene nanoribbons in the terahertz regime. <b>2009</b> , 103, 207401                                | 113  |
| 2220 | Conductivity tensor of graphene through reflection of microwave measurements. <b>2009</b> , 42, 055403  | 2    |
| 2219 | Casimir interaction between a perfect conductor and graphene described by the Dirac model. <b>2009</b> , 80,                                    | 160  |
| 2218 | Instability of two-dimensional graphene: Breaking sp <sup>2</sup> bonds with soft x rays. <b>2009</b> , 80,                                     | 38   |
| 2217 | Graphene and carbon nanotube photonics. <b>2009</b> ,   |      |
| 2216 | Thermal van der Waals interaction between graphene layers. <b>2009</b> , 80,  | 114  |
| 2215 | Stretching induced Hall current and conductance anisotropy in graphene. <b>2009</b> , 95, 163104  | 5    |
| 2214 | Origin of universal optical conductivity and optical stacking sequence identification in multilayer graphene. <b>2009</b> , 103, 067402         | 71   |
| 2213 | LARGE-AREA GRAPHENE-BASED FLEXIBLE TRANSPARENT CONDUCTING FILMS. <b>2009</b> , 04, 83-90  | 47   |
| 2212 | Time evolution of charge conductivity of graphene bilayers. <b>2009</b> , 87, 57002   | 5    |
| 2211 | The effect of next nearest neighbor coupling on the optical spectra in bilayer graphene. <b>2009</b> , 20, 405203                               | 20   |
| 2210 | High-Performance Photoresponsive Organic Nanotransistors with Single-Layer Graphenes as Two-Dimensional Electrodes. <b>2009</b> , 19, 2743-2748 | 110  |
| 2209 | Atomic-Layer Graphene as a Saturable Absorber for Ultrafast Pulsed Lasers. <b>2009</b> , 19, 3077-3083  | 1875 |
| 2208 | Nanotube Polymer Composites for Ultrafast Photonics. <b>2009</b> , 21, 3874-3899  | 659  |
| 2207 | Nano-scale analysis of graphene layers by tip-enhanced near-field Raman spectroscopy. <b>2009</b> , 40, 1434-1440                               | 88   |
| 2206 | Applications of carbon materials in photovoltaic solar cells. <b>2009</b> , 93, 1461-1470   | 269  |
| 2205 | Facile, noncovalent decoration of graphene oxide sheets with nanocrystals. <b>2009</b> , 2, 192-200   | 136  |

|      |  |      |
|------|--|------|
| 2204 | Manifestation of ripples in free-standing graphene in lattice images obtained in an aberration-corrected scanning transmission electron microscope. <b>2009</b> , 206, 1117-1122 | 52   |
| 2203 | Electrochemistry of graphene: new horizons for sensing and energy storage. <b>2009</b> , 9, 211-23   | 516  |
| 2202 | Large-scale pattern growth of graphene films for stretchable transparent electrodes. <b>2009</b> , 457, 706-10   | 8675 |
| 2201 | Ultrafast graphene photodetector. <b>2009</b> , 4, 839-43  | 2309 |
| 2200 | Magneto-transmission of multi-layer epitaxial graphene and bulk graphite: A comparison. <b>2009</b> , 149, 1128-1131   | 9    |
| 2199 | Electronic structures and optical absorption of multilayer graphenes. <b>2009</b> , 149, 1123-1127   | 71   |
| 2198 | Optical conductivity of multilayer graphene. <b>2009</b> , 149, 1962-1966  | 24   |
| 2197 | The electronic properties of graphene and its bilayer. <b>2009</b> , 83, 1248-1252   | 74   |
| 2196 | Non-linear graphene optics for terahertz applications. <b>2009</b> , 40, 712-715   | 59   |
| 2195 | A new parameter based on graphene for characterizing transparent, conductive materials. <b>2009</b> , 47, 2936-2939  | 31   |
| 2194 | Heat conduction in graphene: experimental study and theoretical interpretation. <b>2009</b> , 11, 095012   | 187  |
| 2193 | The transport properties of graphene. <b>2009</b> , 21, 323201   | 63   |
| 2192 | Plasmonics in graphene at infrared frequencies. <b>2009</b> , 80,  | 1513 |
| 2191 | Infrared spectroscopy of electronic bands in bilayer graphene. <b>2009</b> , 79,   | 148  |
| 2190 | Large-area synthesis of high-quality and uniform graphene films on copper foils. <i>Science</i> , <b>2009</b> , 324, 1312-1313   | 8900 |
| 2189 | Large area few-layer graphene/graphite films as transparent thin conducting electrodes. <b>2009</b> , 95, 123115   | 305  |
| 2188 | Broadband electromagnetic response and ultrafast dynamics of few-layer epitaxial graphene. <b>2009</b> , 94, 172102  | 177  |
| 2187 | Strong nonlinear optical response of graphene in the terahertz regime. <b>2009</b> , 95, 072101  | 183  |

|      |  |      |
|------|--|------|
| 2186 | Anisotropic growth of long isolated graphene ribbons on the C face of graphite-capped 6H-SiC. <b>2009</b> , 80,                            | 81   |
| 2185 | Optical absorption and thermal transport of individual suspended carbon nanotube bundles. <b>2009</b> , 9, 590-4                           | 63   |
| 2184 | Optical transparency of graphene as determined by the fine-structure constant. <b>2009</b> , 80,   | 132  |
| 2183 | Optical Hall conductivity in ordinary and graphene quantum Hall systems. <b>2009</b> , 103, 116803   | 96   |
| 2182 | Photons and evolution: quantum mechanical processes modulate sexual differentiation. <b>2009</b> , 73, 296-301                             | 5    |
| 2181 | Observation of an electric-field-induced band gap in bilayer graphene by infrared spectroscopy. <b>2009</b> , 102, 256405                  | 485  |
| 2180 | Imaging of photocurrent generation and collection in single-layer graphene. <b>2009</b> , 9, 1742-6  | 293  |
| 2179 | Counting graphene layers on glass via optical reflection microscopy. <b>2009</b> , 94, 143101  | 80   |
| 2178 | Determination of the gate-tunable band gap and tight-binding parameters in bilayer graphene using infrared spectroscopy. <b>2009</b> , 80, | 227  |
| 2177 | Transfer of large-area graphene films for high-performance transparent conductive electrodes. <b>2009</b> , 9, 4359-63                     | 2532 |
| 2176 | Surface and interference coenhanced Raman scattering of graphene. <b>2009</b> , 3, 933-9   | 81   |
| 2175 | Graphene as a substrate to suppress fluorescence in resonance Raman spectroscopy. <b>2009</b> , 131, 9890-1                                | 395  |
| 2174 | Transparent self-assembled films of reduced graphene oxide platelets. <b>2009</b> , 95, 103104   | 155  |
| 2173 | Nonlinear cyclotron resonance of a massless quasiparticle in graphene. <b>2009</b> , 79,   | 36   |
| 2172 | Band structure asymmetry of bilayer graphene revealed by infrared spectroscopy. <b>2009</b> , 102, 037403                                  | 207  |
| 2171 | Tuning the graphene work function by electric field effect. <b>2009</b> , 9, 3430-4  | 1073 |
| 2170 | Photocurrent imaging and efficient photon detection in a graphene transistor. <b>2009</b> , 9, 1039-44                                     | 486  |
| 2169 | Energy dissipation in graphene field-effect transistors. <b>2009</b> , 9, 1883-8   | 304  |

|      |   |     |
|------|---|-----|
| 2168 | On the universal ac optical background in graphene. <b>2009</b> , 11, 095013                          | 200 |
| 2167 | Excitonic effects on the optical response of graphene and bilayer graphene. <b>2009</b> , 103, 186802 | 509 |
| 2166 | Parity-odd effects and polarization rotation in graphene. <b>2009</b> , 42, 442001                    | 58  |
| 2165 | Optical conductivity and electron-hole pair creation in graphene. <b>2009</b> , 21, 445802            | 8   |
| 2164 | Real-time study of graphene's phase transition in polymer matrices. <b>2009</b> , 9, 2129-32          | 47  |
| 2163 | The electronic properties of graphene and carbon nanotubes. <b>2009</b> , 1, 17-21                    | 174 |
| 2162 | Transfer-free batch fabrication of single layer graphene transistors. <b>2009</b> , 9, 4479-83        | 272 |
| 2161 | Effect of Coulomb interactions on the optical properties of doped graphene. <b>2009</b> , 80,         | 49  |
| 2160 | Dirac electrons in graphene-based quantum wires and quantum dots. <b>2009</b> , 21, 344202            | 32  |
| 2159 | Photonics with multiwall carbon nanotube arrays. <b>2009</b> , 3, 1238-48                             | 64  |
| 2158 | Terahertz transmittance in bilayer graphene. <b>2009</b> ,  |     |
| 2157 | Optical conductance and transmission in bilayer graphene. <b>2009</b> , 106, 043103                   | 10  |
| 2156 | Gate tunable infrared phonon anomalies in bilayer graphene. <b>2009</b> , 103, 116804                 | 111 |
| 2155 | Dynamics of particle-hole pair creation in graphene. <b>2009</b> , 102, 106802                        | 64  |
| 2154 | Optical constants of graphene layers in the visible range. <b>2009</b> , 94, 031901                   | 440 |
| 2153 | Field Effects on Optical Phonons in Bilayer Graphene. <b>2009</b> , 78, 034709                        | 60  |
| 2152 | Photochemical reactivity of graphene. <b>2009</b> , 131, 17099-101                                    | 308 |
| 2151 | Dynamic conductivity in graphene beyond linear response. <b>2009</b> , 103, 246802                    | 56  |

|      |   |      |
|------|---|------|
| 2150 | Linear response of doped graphene sheets to vector potentials. <b>2009</b> , 80,  | 88   |
| 2149 | Spontaneous formation of nanostructures in graphene. <b>2009</b> , 9, 3599-602  | 54   |
| 2148 | Weak-Field Hall Effect in Graphene Calculated within Self-Consistent Born Approximation. <b>2009</b> , 78, 094714   | 33   |
| 2147 | Nonlinear Electrodynamic Properties Of Graphene. <b>2009</b> ,  |      |
| 2146 | Masses in graphenelike two-dimensional electronic systems: Topological defects in order parameters and their fractional exchange statistics. <b>2009</b> , 80,        | 139  |
| 2145 | Vertical absorption edge and temperature dependent resistivity in semihydrogenated graphene. <b>2010</b> , 96, 023107   | 9    |
| 2144 | Magnetic Skyrmions Could Act as Qubits. <b>2010</b> , 3,  | 20   |
| 2143 | Graphene metrology and devices. <b>2010</b> , 101, 175-181  | 1    |
| 2142 | Effect of Holstein phonons on the optical conductivity of gapped graphene. <b>2010</b> , 73, 247-252  | 6    |
| 2141 | DNA translocation through graphene nanopores. <b>2010</b> , 10, 3163-7  | 782  |
| 2140 | Continuous, highly flexible, and transparent graphene films by chemical vapor deposition for organic photovoltaics. <b>2010</b> , 4, 2865-73                          | 1052 |
| 2139 | Properties of graphene: a theoretical perspective. <b>2010</b> , 59, 261-482  | 827  |
| 2138 | Graphene: Materially Better Carbon. <b>2010</b> , 35, 289-295   | 164  |
| 2137 | Graphene: electronic and photonic properties and devices. <b>2010</b> , 10, 4285-94   | 1107 |
| 2136 | Stable aqueous dispersions of noncovalently functionalized graphene from graphite and their multifunctional high-performance applications. <b>2010</b> , 10, 4295-301 | 405  |
| 2135 | Synthesis of Graphene and Its Applications: A Review. <b>2010</b> , 35, 52-71   | 1196 |
| 2134 | Strain effect on the optical conductivity of graphene. <b>2010</b> , 81,  | 173  |
| 2133 | Colloquium: The transport properties of graphene: An introduction. <b>2010</b> , 82, 2673-2700  | 772  |



|      |   |      |
|------|---|------|
| 2132 | Synthesis of visible-light responsive graphene oxide/TiO(2) composites with p/n heterojunction. <b>2010</b> , 4, 6425-32  | 741  |
| 2131 | The chemistry of graphene. <b>2010</b> , 20, 2277   | 1222 |
| 2130 | The electrochemical response of graphene sheets is independent of the number of layers from a single graphene sheet to multilayer stacked graphene platelets. <b>2010</b> , 5, 2355-7 | 65   |
| 2129 | Correlating defect density with carrier mobility in large-scaled graphene films: Raman spectral signatures for the estimation of defect density. <b>2010</b> , 21, 465705             | 71   |
| 2128 | Universal infrared conductivity of graphite. <b>2010</b> , 82,  | 5    |
| 2127 | Platelet graphite nanofibers for electrochemical sensing and biosensing: the influence of graphene sheet orientation. <b>2010</b> , 5, 266-71   | 112  |
| 2126 | Graphene visualizes the first water adlayers on mica at ambient conditions. <i>Science</i> , <b>2010</b> , 329, 1188-91 33.3  | 370  |
| 2125 | Spectroscopic measurement of interlayer screening in multilayer epitaxial graphene. <b>2010</b> , 104, 136802   | 93   |
| 2124 | Nonlinear optical spectrum of bilayer graphene in the terahertz regime. <b>2010</b> , 97, 243110  | 59   |
| 2123 | Graphene/Polymer Nanocomposites. <b>2010</b> , 43, 6515-6530  | 2683 |
| 2122 | Vector dissipative solitons in graphene mode locked fiber lasers. <b>2010</b> , 283, 3334-3338  | 118  |
| 2121 | Terahertz absorption window and high transmission in graphene bilayer. <b>2010</b> , 283, 3695-3697   | 4    |
| 2120 | Large-Scale Synthesis of Graphene Films by Joule-Heating-Induced Chemical Vapor Deposition. <b>2010</b> , 39, 2190-2195   | 19   |
| 2119 | Edge-Functionalization of Pyrene as a Miniature Graphene via Friedel-Crafts Acylation Reaction in Poly(Phosphoric Acid). <b>2010</b> , 5, 1686-91                                     | 13   |
| 2118 | Infrared-photovoltaic properties of graphene revealed by electro-osmotic spray direct patterning of electrodes. <b>2010</b> , 5, 140  | 4    |
| 2117 | Thinnest two-dimensional nanomaterial-graphene for solar energy. <b>2010</b> , 3, 782-96  | 185  |
| 2116 | Graphene Polymer Nanofiber Membrane for Ultrafast Photonics. <b>2010</b> , 20, 782-791  | 382  |
| 2115 | Current trends in shrinking the channel length of organic transistors down to the nanoscale. <b>2010</b> , 22, 20-32  | 74   |

|      |  |      |
|------|--|------|
| 2114 | Chemically derived graphene oxide: towards large-area thin-film electronics and optoelectronics. <b>2010</b> , 22, 2392-415                        | 1818 |
| 2113 | Graphene and graphene oxide: synthesis, properties, and applications. <b>2010</b> , 22, 3906-24  | 7620 |
| 2112 | Thin film field-effect phototransistors from bandgap-tunable, solution-processed, few-layer reduced graphene oxide films. <b>2010</b> , 22, 4872-6 | 196  |
| 2111 | Kohlenstoffnanomaterialien für Biosensoren: Nanoröhren oder Graphen – was eignet sich besser?. <b>2010</b> , 122, 2160-2185                        | 51   |
| 2110 | Carbon nanomaterials in biosensors: should you use nanotubes or graphene?. <b>2010</b> , 49, 2114-38   | 1188 |
| 2109 | Optical Hall conductivity in 2DEG and graphene QHE systems. <b>2010</b> , 42, 751-754  | 7    |
| 2108 | Photo-excited carriers and optical conductance and transmission in graphene in the presence of phonon scattering. <b>2010</b> , 42, 748-750        | 6    |
| 2107 | AC transport properties of single and bilayer graphene. <b>2010</b> , 42, 755-758  | 8    |
| 2106 | Hot-electron transport in graphene driven by intense terahertz fields. <b>2010</b> , 374, 1266-1269  | 8    |
| 2105 | Graphene-based photonic crystal. <b>2010</b> , 374, 4784-4786  | 34   |
| 2104 | Growth and properties of few-layer graphene prepared by chemical vapor deposition. <b>2010</b> , 48, 1088-1094                                     | 294  |
| 2103 | Production, properties and potential of graphene. <b>2010</b> , 48, 2127-2150  | 1240 |
| 2102 | Preparation of carbon-based transparent and conductive thin films by pyrolysis of silylated graphite oxides. <b>2010</b> , 48, 4009-4014           | 15   |
| 2101 | Seeing graphene-based sheets. <b>2010</b> , 13, 28-38  | 147  |
| 2100 | Graphene, a promising transparent conductor. <b>2010</b> , 13, 52-59   | 407  |
| 2099 | Optical and thermal properties of graphene field-effect transistors. <b>2010</b> , 247, 2895-2903  | 7    |
| 2098 | Solution-phase exfoliation of graphite for ultrafast photonics. <b>2010</b> , 247, 2953-2957   | 152  |
| 2097 | Heterogeneous graphene nanostructures: ZnO nanostructures grown on large-area graphene layers. <b>2010</b> , 6, 2448-52                            | 79   |

|      |   |      |
|------|---|------|
| 2096 | Synthesis of a pillared graphene nanostructure: a counterpart of three-dimensional carbon architectures. <b>2010</b> , 6, 2309-13   | 162  |
| 2095 | Fluorographene: a two-dimensional counterpart of Teflon. <b>2010</b> , 6, 2877-84   | 979  |
| 2094 | Flexible, transparent, conducting films of randomly stacked graphene from surfactant-stabilized, oxide-free graphene dispersions. <b>2010</b> , 6, 458-64                   | 342  |
| 2093 | Theoretical efficiency of nanostructured graphene-based photovoltaics. <b>2010</b> , 6, 313-8   | 89   |
| 2092 | Anisotropy of graphite optical conductivity. <b>2010</b> , 92, 348-351  | 3    |
| 2091 | Graphene oxide as a chemically tunable platform for optical applications. <b>2010</b> , 2, 1015-24  | 2633 |
| 2090 | Dimensional crossover of thermal transport in few-layer graphene. <b>2010</b> , 9, 555-8  | 1028 |
| 2089 | Roll-to-roll production of 30-inch graphene films for transparent electrodes. <b>2010</b> , 5, 574-8  | 6507 |
| 2088 | Thermal infrared emission from biased graphene. <b>2010</b> , 5, 497-501  | 205  |
| 2087 | Graphene photonics and optoelectronics. <b>2010</b> , 4, 611-622  | 5678 |
| 2086 | Graphene photodetectors for high-speed optical communications. <b>2010</b> , 4, 297-301   | 1782 |
| 2085 | Thermal Conductivity of a Monolayer of Exfoliated Graphite Nanoplatelets Prepared by Liquid-Liquid Interfacial Self-Assembly. <b>2010</b> , 2010, 1-6                       | 7    |
| 2084 | Continuous production of flexible carbon nanotube-based transparent conductive films. <b>2010</b> , 11, 045004  | 14   |
| 2083 | Optical Transmission of Epitaxial Graphene Layers on SiC in the Visible Spectral Range. <b>2010</b> , 645-648, 615-618  | 2    |
| 2082 | Chemical vapor deposition of graphene films. <b>2010</b> , 21, 145604   | 94   |
| 2081 | Halogen Based Surface Chemistries for Graphene Synthesis. <b>2010</b> , 1259, 1   |      |
| 2080 | Determination of the Number of Graphene Layers: Discrete Distribution of the Secondary Electron Intensity Stemming from Individual Graphene Layers. <b>2010</b> , 3, 095101 | 71   |
| 2079 | Gapless insulator and a band gap scaling law in semihydrogenated graphene. <b>2010</b> , 97, 043104   | 6    |

|      |   |     |
|------|---|-----|
| 2078 | Conductivity of interacting massless Dirac particles in graphene: Collisionless regime. <b>2010</b> , 82,                                       | 62  |
| 2077 | Optical reflectometry and ellipsometry measurements of graphene and thin graphitic films on bulk low-index substrates. <b>2010</b> ,            | 0   |
| 2076 | Transient response of intrinsic graphene under ultrafast interband excitation. <b>2010</b> , 81,  | 12  |
| 2075 | Growth kinetics of epitaxial graphene on SiC substrates. <b>2010</b> , 81,  | 23  |
| 2074 | Observation of Raman G-band splitting in top-doped few-layer graphene. <b>2010</b> , 81,  | 56  |
| 2073 | Time-dependent transport in graphene nanoribbons. <b>2010</b> , 82,   | 40  |
| 2072 | Dynamic conductivity of graphene with electron-LO-phonon interaction. <b>2010</b> , 81,   | 43  |
| 2071 | Electro-optics of graphene: Field-modulated reflection and birefringence. <b>2010</b> , 81,   | 16  |
| 2070 | Fabrication of metal patterns on freestanding graphenoid nanomembranes. <b>2010</b> , 28, C6D5-C6D10  | 16  |
| 2069 | Enhanced resistance of single-layer graphene to ion bombardment. <b>2010</b> , 107, 104326  | 25  |
| 2068 | Fully transparent InGaZnO thin film transistors using indium tin oxide/graphene multilayer as source/drain electrodes. <b>2010</b> , 97, 172106 | 21  |
| 2067 | Ellipsometry of graphene on a substrate. <b>2010</b> , 107, 033525  | 9   |
| 2066 | Measurement of the thermal conductance of the graphene/SiO <sub>2</sub> interface. <b>2010</b> , 97, 221904                                     | 148 |
| 2065 | Fluorescence of laser-created electron-hole plasma in graphene. <b>2010</b> , 82,   | 61  |
| 2064 | Remote plasma assisted growth of graphene films. <b>2010</b> , 96, 154101   | 67  |
| 2063 | Theory of resonant photon drag in monolayer graphene. <b>2010</b> , 81,   | 38  |
| 2062 | Effect of electron-phonon interaction on spectroscopies in graphene. <b>2010</b> , 81,  | 59  |
| 2061 | Spectral and optical properties of doped graphene with charged impurities in the self-consistent Born approximation. <b>2010</b> , 82,          | 12  |

|      |  |      |
|------|--|------|
| 2060 | Rotation of the linear-polarization plane of transmitted and reflected light by single- and few-layer graphene. <b>2010</b> , 82,                            | 6    |
| 2059 | Variational approach to the excitonic phase transition in graphene. <b>2010</b> , 82,  | 38   |
| 2058 | Ultrabroadband photodetection based on graphene ink. <b>2010</b> , 21, 455202  | 12   |
| 2057 | Electrostatic transfer of patterned epitaxial graphene from SiC(0001) to glass. <b>2010</b> , 12, 125016   | 7    |
| 2056 | Current status of self-organized epitaxial graphene ribbons on the C face of 6HSiC substrates. <b>2010</b> , 43, 374011                                      | 27   |
| 2055 | Graphene mode-locked ultrafast laser. <b>2010</b> , 4, 803-10  | 1547 |
| 2054 | Doped graphene electrodes for organic solar cells. <b>2010</b> , 21, 505204  | 216  |
| 2053 | Stacked graphene nanofibers for electrochemical oxidation of DNA bases. <b>2010</b> , 12, 8943-7   | 74   |
| 2052 | Optical properties of large-area polycrystalline chemical vapor deposited graphene by spectroscopic ellipsometry. <b>2010</b> , 97, 253110                   | 150  |
| 2051 | Extraordinary thermal conductivity of graphene: Possibility of thermal management applications. <b>2010</b> ,  | 1    |
| 2050 | Ultrafast photoluminescence from graphene. <b>2010</b> , 105, 127404   | 332  |
| 2049 | Honeycomb carbon: a review of graphene. <b>2010</b> , 110, 132-45  | 5411 |
| 2048 | Optical reflection and transmission properties of exfoliated graphite from a graphene monolayer to several hundred graphene layers. <b>2010</b> , 21, 295709 | 58   |
| 2047 | Growth of large-area graphene films from metal-carbon melts. <b>2010</b> , 108, 094321   | 109  |
| 2046 | Nanoelectronics in Radio-Frequency Technology. <b>2010</b> , 11, 119-135   | 18   |
| 2045 | Large energy pulse generation modulated by graphene epitaxially grown on silicon carbide. <b>2010</b> , 4, 7582-6  | 84   |
| 2044 | Coherent control of ballistic photocurrents in multilayer epitaxial graphene using quantum interference. <b>2010</b> , 10, 1293-6                            | 102  |
| 2043 | Terahertz antenna based on graphene. <b>2010</b> , 107, 104313   | 116  |

|      |  |     |
|------|--|-----|
| 2042 | Study of Heterogeneous Electron Transfer on the Graphene/Self-Assembled Monolayer Modified Gold Electrode by Electrochemical Approaches. <b>2010</b> , 114, 14243-14250            | 66  |
| 2041 | Plasmon-enhanced ultraviolet photoluminescence from hybrid structures of graphene/ZnO films. <b>2010</b> , 105, 127403   | 116 |
| 2040 | Direct grafting of linear macromolecular wedges to the edge of pristine graphite to prepare edge-functionalized graphene-based polymer composites. <b>2010</b> , 20, 10936         | 37  |
| 2039 | A roadmap to high quality chemically prepared graphene. <b>2010</b> , 43, 374015   | 48  |
| 2038 | Ultrafast transient absorption microscopy studies of carrier dynamics in epitaxial graphene. <b>2010</b> , 10, 1308-13   | 143 |
| 2037 | Brownian motion of graphene. <b>2010</b> , 4, 7515-23  | 160 |
| 2036 | Epitaxial chemical vapor deposition growth of single-layer graphene over cobalt film crystallized on sapphire. <b>2010</b> , 4, 7407-14  | 247 |
| 2035 | Modulating the electronic structures of graphene by controllable hydrogenation. <b>2010</b> , 97, 233111   | 71  |
| 2034 | Number of graphene layers as a modulator of the open-circuit voltage of graphene-based solar cell. <b>2010</b> , 97, 032113  | 63  |
| 2033 | Silicon nitride gate dielectrics and band gap engineering in graphene layers. <b>2010</b> , 10, 3572-6   | 121 |
| 2032 | First-principles study of the optical absorption spectra of electrically gated bilayer graphene. <b>2010</b> , 81,   | 24  |
| 2031 | Spectroscopic ellipsometry of graphene and an exciton-shifted van Hove peak in absorption. <b>2010</b> , 81,   | 410 |
| 2030 | Optical constants of graphene measured by spectroscopic ellipsometry. <b>2010</b> , 97, 091904   | 282 |
| 2029 | Efficient growth of high-quality graphene films on Cu foils by ambient pressure chemical vapor deposition. <b>2010</b> , 97, 183109  | 155 |
| 2028 | Enhancing visibility of graphene on arbitrary substrates by microdroplet condensation. <b>2010</b> , 97, 231905  | 13  |
| 2027 | Use of butylamine modified graphene sheets in polymer solar cells. <b>2010</b> , 20, 995-1000  | 92  |
| 2026 | Flexible, Magnetic, and Electrically Conductive Graphene/Fe <sub>3</sub> O <sub>4</sub> Paper and Its Application for Magnetic-Controlled Switches. <b>2010</b> , 114, 17465-17471 | 162 |
| 2025 | Dirac electronic states in graphene systems: optical spectroscopy studies. <b>2010</b> , 25, 063001  | 148 |

|      |   |     |
|------|---|-----|
| 2024 | Efficient preparation of large-area graphene oxide sheets for transparent conductive films. <b>2010</b> , 4, 5245-52  | 775 |
| 2023 | Electronic structure of few-layer graphene: experimental demonstration of strong dependence on stacking sequence. <b>2010</b> , 104, 176404                             | 221 |
| 2022 | Ab initio high-energy excitonic effects in graphite and graphene. <b>2010</b> , 81,   | 70  |
| 2021 | Graphene-based fast electronics and optoelectronics. <b>2010</b> ,  | 1   |
| 2020 | The evolution of electronic structure in few-layer graphene revealed by optical spectroscopy. <b>2010</b> , 107, 14999-5004   | 161 |
| 2019 | Wedging transfer of nanostructures. <b>2010</b> , 10, 1912-6  | 153 |
| 2018 | Optoelectronic properties of graphene in the presence of optical phonon scattering. <b>2010</b> , 82,   | 29  |
| 2017 | Toward all-carbon electronics: fabrication of graphene-based flexible electronic circuits and memory cards using maskless laser direct writing. <b>2010</b> , 2, 3310-7 | 47  |
| 2016 | Nonlinear electric transport in graphene: Quantum quench dynamics and the Schwinger mechanism. <b>2010</b> , 81,  | 66  |
| 2015 | Topological insulators for high-performance terahertz to infrared applications. <b>2010</b> , 82,   | 139 |
| 2014 | Stacking-dependent optical conductivity of bilayer graphene. <b>2010</b> , 4, 4074-80   | 122 |
| 2013 | Energy transfer from individual semiconductor nanocrystals to graphene. <b>2010</b> , 4, 2964-8   | 301 |
| 2012 | Organic light-emitting diodes on solution-processed graphene transparent electrodes. <b>2010</b> , 4, 43-8  | 838 |
| 2011 | Technique for the dry transfer of epitaxial graphene onto arbitrary substrates. <b>2010</b> , 4, 1108-14  | 163 |
| 2010 | Nonlinear optical response of graphene in time domain. <b>2010</b> , 82,  | 178 |
| 2009 | The Physics of ultrafast saturable absorption in graphene. <b>2010</b> , 18, 4564-73  | 256 |
| 2008 | Plasmonic resonances in optomagnetic metamaterials based on double dot arrays. <b>2010</b> , 18, 9780-90  | 21  |
| 2007 | Highly sensitive graphene biosensors based on surface plasmon resonance. <b>2010</b> , 18, 14395-400  | 613 |

|      |   |          |
|------|---|----------|
| 2006 | High spatial resolution ellipsometer for characterization of epitaxial graphene. <b>2010</b> , 35, 3336-8   | 17       |
| 2005 | Chemical doping of large-area stacked graphene films for use as transparent, conducting electrodes. <b>2010</b> , 4, 3839-44                            | 295      |
| 2004 | Observation of plasmarons in quasi-freestanding doped graphene. <i>Science</i> , <b>2010</b> , 328, 999-1002  | 33.3 340 |
| 2003 | Large, solution-processable graphene quantum dots as light absorbers for photovoltaics. <b>2010</b> , 10, 1869-73                                       | 764      |
| 2002 | Coherent nonlinear optical response of graphene. <b>2010</b> , 105, 097401  | 763      |
| 2001 | P25-graphene composite as a high performance photocatalyst. <b>2010</b> , 4, 380-6  | 2714     |
| 2000 | Ballistic transport, chiral anomaly, and emergence of the neutral electron-hole plasma in graphene. <b>2010</b> , 82,                                   | 35       |
| 1999 | Magneto-optical and magnetoelectric effects of topological insulators in quantizing magnetic fields. <b>2010</b> , 82,                                  | 79       |
| 1998 | Zero-gap materials for future spintronics, electronics and optics. <b>2010</b> , 2, 31-38   | 145      |
| 1997 | Nanocarbonic transparent conductive films. <b>2010</b> , 39, 2477-83  | 40       |
| 1996 | Probing the electron-phonon coupling in ozone-doped graphene by Raman spectroscopy. <b>2010</b> , 82,   | 30       |
| 1995 | Are there fundamental limitations on the sheet resistance and transmittance of thin graphene films?. <b>2010</b> , 4, 2713-20                           | 462      |
| 1994 | Large scale pattern graphene electrode for high performance in transparent organic single crystal field-effect transistors. <b>2010</b> , 4, 3927-32    | 120      |
| 1993 | Thermal conductivity of graphene in corbino membrane geometry. <b>2010</b> , 4, 1889-92   | 296      |
| 1992 | Single-, few-, and multilayer graphene not exhibiting significant advantages over graphite microparticles in electroanalysis. <b>2010</b> , 82, 8367-70 | 61       |
| 1991 | Atomically-thin crystalline films and ribbons of bismuth telluride. <b>2010</b> , 96, 053107  | 117      |
| 1990 | Improvement of transparent conducting nanotube films by addition of small quantities of graphene. <b>2010</b> , 4, 4238-46                              | 102      |
| 1989 | Nonlinear Optical Transmission of Nanographene and Its Composites. <b>2010</b> , 114, 12517-12523   | 80       |



|      |   |     |
|------|---|-----|
| 1988 | Enhancing the conductivity of transparent graphene films via doping. <b>2010</b> , 21, 285205   | 301 |
| 1987 | Renormalization of Coulomb interaction in graphene: Determining observable quantities. <b>2010</b> , 82,                                  | 51  |
| 1986 | Surface-enhanced Raman spectroscopy of graphene. <b>2010</b> , 4, 5617-26   | 384 |
| 1985 | Metal-catalyzed crystallization of amorphous carbon to graphene. <b>2010</b> , 96, 063110   | 208 |
| 1984 | Mechanical properties of monolayer graphene oxide. <b>2010</b> , 4, 6557-64   | 831 |
| 1983 | Spectral features due to inter-Landau-level transitions in the Raman spectrum of bilayer graphene. <b>2010</b> , 82,                      | 26  |
| 1982 | Excitonic absorption in gate-controlled graphene quantum dots. <b>2010</b> , 82,  | 105 |
| 1981 | Transfer-free batch fabrication of large-area suspended graphene membranes. <b>2010</b> , 4, 4762-8                                       | 90  |
| 1980 | Thermal Conduction in Suspended Graphene Layers. <b>2010</b> , 18, 474-486  | 50  |
| 1979 | Dynamical polarizability of graphene beyond the Dirac cone approximation. <b>2010</b> , 81,   | 75  |
| 1978 | Effect of a velocity barrier on the ballistic transport of Dirac fermions. <b>2010</b> , 82,  | 61  |
| 1977 | Control of electronic structure of graphene by various dopants and their effects on a nanogenerator. <b>2010</b> , 132, 15603-9           | 223 |
| 1976 | Optical properties of strained graphene. <b>2010</b> , 92, 67001  | 99  |
| 1975 | Separation-dependent electronic transparency of monolayer graphene membranes on III-V semiconductor substrates. <b>2010</b> , 10, 3446-52 | 29  |
| 1974 | Electron and optical phonon temperatures in electrically biased graphene. <b>2010</b> , 104, 227401                                       | 162 |
| 1973 | Levitated spinning graphene flakes in an electric quadrupole ion trap. <b>2010</b> , 82,  | 57  |
| 1972 | Fast graphene-based electronics and optoelectronics. <b>2010</b> ,  | 1   |
| 1971 | Thermal transport in suspended and supported monolayer graphene grown by chemical vapor deposition. <b>2010</b> , 10, 1645-51             | 940 |

|      |  |        |
|------|--|--------|
| 1970 | Mechanism for graphene-based optoelectronic switches by tuning surface plasmon-polaritons in monolayer graphene. <b>2010</b> , 92, 68001 | 97     |
| 1969 | Mode locking of ceramic Nd:yttrium aluminum garnet with graphene as a saturable absorber. <b>2010</b> , 96, 031106                       | 216    |
| 1968 | Graphene mode-lockers for fiber lasers functioned with evanescent field interaction. <b>2010</b> , 96, 051122                            | 296    |
| 1967 | Nonlinear broadband photoluminescence of graphene induced by femtosecond laser irradiation. <b>2010</b> , 82,                            | 95     |
| 1966 | Flexible, transparent single-walled carbon nanotube transistors with graphene electrodes. <b>2010</b> , 21, 425201                       | 62     |
| 1965 | Sub 200 fs pulse generation from a graphene mode-locked fiber laser. <b>2010</b> , 97, 203106  | 344    |
| 1964 | Tree-level electron-photon interactions in graphene. <b>2010</b> , 81,   | 21     |
| 1963 | Excitonic effects in the optical conductivity of gated graphene. <b>2010</b> , 105, 055501   | 59     |
| 1962 | Selective etching of graphene edges by hydrogen plasma. <b>2010</b> , 132, 14751-3   | 193    |
| 1961 | Electrically switchable optical response in graphene. <b>2010</b> ,  |        |
| 1960 | Epitaxial graphene on 4H-SiC by pulsed electron irradiation. <b>2010</b> , 46, 4917-9  | 13     |
| 1959 | ULTRA-SHORT OPTICAL PULSE GENERATION WITH SINGLE-LAYER GRAPHENE. <b>2010</b> , 19, 767-771   | 20     |
| 1958 | Casimir forces and graphene sheets. <b>2010</b> , 82,  | 101    |
| 1957 | Atomic multi-layer graphene for dissipative soliton generation in Ytterbium-doped fiber laser. <b>2010</b> ,                             | 1      |
| 1956 | Physics. Another spin on graphene. <i>Science</i> , <b>2011</b> , 332, 315-6   | 33-3 8 |
| 1955 | Solution processed reduced graphene oxide ultraviolet detector. <b>2011</b> , 99, 113114   | 92     |
| 1954 | Fluorescence quenching in graphene: A fundamental ruler and evidence for transverse plasmons. <b>2011</b> , 84,                          | 63     |
| 1953 | Thermal rectification in thickness-asymmetric graphene nanoribbons. <b>2011</b> , 99, 193104   | 56     |

|      |   |     |
|------|---|-----|
| 1952 | Layer Number Determination and Thickness-Dependent Properties of Graphene Grown on SiC. <b>2011</b> , 10, 1196-1201                                       | 10  |
| 1951 | Characterization and nanopatterning of organically functionalized graphene with ultrahigh vacuum scanning tunneling microscopy. <b>2011</b> , 36, 532-542 | 12  |
| 1950 | Ultrafast electron-optical phonon scattering and quasiparticle lifetime in CVD-grown graphene. <b>2011</b> , 5, 3278-83                                   | 57  |
| 1949 | Molar Extinction Coefficient of Single-Wall Carbon Nanotubes. <b>2011</b> , 115, 14682-14686  | 117 |
| 1948 | Ultralow secondary electron emission of graphene. <b>2011</b> , 5, 1047-55  | 54  |
| 1947 | Surface enhanced Raman scattering of aged graphene: Effects of annealing in vacuum. <b>2011</b> , 99, 233103  | 20  |
| 1946 | Relaxation of optically excited carriers in graphene. <b>2011</b> , 84,   | 95  |
| 1945 | Plasma excitations in graphene: their spectral intensity and temperature dependence in magnetic field. <b>2011</b> , 5, 1026-32                           | 39  |
| 1944 | Single- and Double-Layer Graphenes as Ultrabarriers for Fluorescent Polymer Films. <b>2011</b> , 115, 23057-23061   | 18  |
| 1943 | Chirality and thickness-dependent thermal conductivity of few-layer graphene: A molecular dynamics study. <b>2011</b> , 98, 113107                        | 146 |
| 1942 | Optical reflectivity and Raman scattering in few-layer-thick graphene highly doped by K and Rb. <b>2011</b> , 5, 5708-16                                  | 51  |
| 1941 | Graphene-polymer hybrid nanostructure-based bioenergy storage device for real-time control of biological motor activity. <b>2011</b> , 5, 8656-64         | 19  |
| 1940 | Reliably counting atomic planes of few-layer graphene ( $n > 4$ ). <b>2011</b> , 5, 269-74  | 117 |
| 1939 | Catalyst-Free Direct Growth of Triangular Nano-Graphene on All Substrates. <b>2011</b> , 115, 14488-14493   | 53  |
| 1938 | High-throughput large-area automated identification and quality control of graphene and few-layer graphene films. <b>2011</b> , 5, 914-22                 | 59  |
| 1937 | The 2010 Nobel Prize in physics—ground-breaking experiments on graphene. <b>2011</b> , 44, 473001   | 41  |
| 1936 | Theory of the giant plasmon-enhanced second-harmonic generation in graphene and semiconductor two-dimensional electron systems. <b>2011</b> , 84,         | 162 |
| 1935 | Seeing many-body effects in single- and few-layer graphene: observation of two-dimensional saddle-point excitons. <b>2011</b> , 106, 046401               | 315 |

|      |   |      |
|------|---|------|
| 1934 | Hybrid nanostructure heterojunction solar cells fabricated using vertically aligned ZnO nanotubes grown on reduced graphene oxide. <b>2011</b> , 22, 405401   | 24   |
| 1933 | Mechanical exfoliation of graphene for the passive mode-locking of fiber lasers. <b>2011</b> , 99, 121107   | 181  |
| 1932 | Electronic States and Transport Properties of Carbon Crystalline: Graphene, Nanotube, and Graphite. <b>2011</b> , 359-382                                     | 2    |
| 1931 | Graphene: Its Fundamentals to Future Applications. <b>2011</b> , 59, 2702-2708  | 56   |
| 1930 | Monolayer graphene film/silicon nanowire array Schottky junction solar cells. <b>2011</b> , 99, 133113  | 107  |
| 1929 | Raman characterization of ABA- and ABC-stacked trilayer graphene. <b>2011</b> , 5, 8760-8   | 153  |
| 1928 | Optical and sensing properties of 1-pyrenecarboxylic Acid-functionalized graphene films laminated on polydimethylsiloxane membranes. <b>2011</b> , 5, 1003-11 | 66   |
| 1927 | Graphene Oxide: Synthesis, Characterization, Electronic Structure, and Applications. <b>2011</b> , 435-464  | 1    |
| 1926 | Optical response of large scale single layer graphene. <b>2011</b> , 98, 071905   | 74   |
| 1925 | Thickness-Dependent Morphologies and Surface-Enhanced Raman Scattering of Ag Deposited on n-Layer Graphenes. <b>2011</b> , 115, 11348-11354                   | 69   |
| 1924 | Graphene as a Q-Switcher for Neodymium-Doped Lutetium Vanadate Laser. <b>2011</b> , 4, 022704   | 22   |
| 1923 | Graphene/silicon nanowire Schottky junction for enhanced light harvesting. <b>2011</b> , 3, 721-5   | 193  |
| 1922 | A review of chemical vapour deposition of graphene on copper. <b>2011</b> , 21, 3324-3334   | 1106 |
| 1921 | Oxidation resistance of graphene-coated Cu and Cu/Ni alloy. <b>2011</b> , 5, 1321-7   | 1007 |
| 1920 | Electrical and thermal conductivity of low temperature CVD graphene: the effect of disorder. <b>2011</b> , 22, 275716   | 113  |
| 1919 | Preparation of non-covalently functionalized graphene using 9-anthracene carboxylic acid. <b>2011</b> , 22, 405603  | 43   |
| 1918 | Synthesis of Graphene-ZnO Heterogeneous Nanostructures by Chemical Vapor Deposition. <b>2011</b> , 1348, 145601   |      |
| 1917 | Laser-pulse-duration and spectral dependence of saturable absorption in graphene. <b>2011</b> ,   |      |

|      |  |      |
|------|--|------|
| 1916 | Photocatalytic patterning and modification of graphene. <b>2011</b> , 133, 2706-13   | 160  |
| 1915 | Graphene optical modulator. <b>2011</b> ,  | 3    |
| 1914 | RANDOM WALK TO GRAPHENE. <b>2011</b> , 25, 4055-4080   | 10   |
| 1913 | Nonmonotonic temperature dependent transport in graphene grown by chemical vapor deposition. <b>2011</b> , 84,   | 63   |
| 1912 | Stretchable graphene transistors with printed dielectrics and gate electrodes. <b>2011</b> , 11, 4642-6  | 326  |
| 1911 | Control of thermal and electronic transport in defect-engineered graphene nanoribbons. <b>2011</b> , 5, 3779-87  | 279  |
| 1910 | Optics of Flat Carbon Spectroscopic Ellipsometry of Graphene Flakes. <b>2011</b> , 3-9   | 2    |
| 1909 | Laser thinning for monolayer graphene formation: heat sink and interference effect. <b>2011</b> , 5, 263-8   | 80   |
| 1908 | Chemically-modified graphenes for oxidation of DNA bases: analytical parameters. <b>2011</b> , 136, 4738-44  | 38   |
| 1907 | The effects of percolation in nanostructured transparent conductors. <b>2011</b> , 36, 774-781   | 193  |
| 1906 | Continuous roll-to-roll growth of graphene films by chemical vapor deposition. <b>2011</b> , 98, 133106  | 82   |
| 1905 | Reduced graphene oxide as capturer of dyes and electrons during photocatalysis: surface wrapping and capture promoted efficiency. <b>2011</b> , 13, 13216-21 | 89   |
| 1904 | Graphene based new energy materials. <b>2011</b> , 4, 1113   | 1637 |
| 1903 | Graphene: materials in the Flatland. <b>2011</b> , 181, 1299   | 32   |
| 1902 | Direct formation of wafer scale graphene thin layers on insulating substrates by chemical vapor deposition. <b>2011</b> , 11, 3612-6                         | 254  |
| 1901 | Effect of layer stacking on the electronic structure of graphene nanoribbons. <b>2011</b> , 5, 6096-101  | 29   |
| 1900 | Absence of interaction corrections in the optical conductivity of graphene. <b>2011</b> , 83,  | 47   |
| 1899 | Thermal Conductivity Measurement of Graphene Exfoliated on Silicon Dioxide. <b>2011</b> , 133,   | 28   |

|      |   |     |
|------|---|-----|
| 1898 | Inorganic nanostructures grown on graphene layers. <b>2011</b> , 3, 3522-33   | 72  |
| 1897 | Drude conductivity of Dirac fermions in graphene. <b>2011</b> , 83,   | 376 |
| 1896 | Excitonic effects on optical absorption spectra of doped graphene. <b>2011</b> , 11, 3844-7   | 65  |
| 1895 | Excitons in intrinsic and bilayer graphene. <b>2011</b> , 83,   | 66  |
| 1894 | Nitrogen doped SrTiO <sub>3</sub> coupled with graphene sheets as photocatalysts for increased photocatalytic hydrogen production. <b>2011</b> , 5, 3483-92 | 292 |
| 1893 | Tribological properties of oleic acid-modified graphene as lubricant oil additives. <b>2011</b> , 44, 205303  | 189 |
| 1892 | Upright standing graphene formation on substrates. <b>2011</b> , 133, 16072-9   | 39  |
| 1891 | Anisotropic photoconductivity in graphene. <b>2011</b> , 96, 37006  | 19  |
| 1890 | Excitonic fano resonance in free-standing graphene. <b>2011</b> , 11, 1379-82   | 105 |
| 1889 | Direct growth of nanographene on glass and postdeposition size control. <b>2011</b> , 98, 183106  | 17  |
| 1888 | Protein-directed reduction of graphene oxide and intracellular imaging. <b>2011</b> , 47, 12658-60  | 54  |
| 1887 | Fabrication of graphene thin films based on layer-by-layer self-assembly of functionalized graphene nanosheets. <b>2011</b> , 3, 360-8                      | 154 |
| 1886 | The role of chemistry in graphene doping for carbon-based electronics. <b>2011</b> , 5, 3096-103  | 74  |
| 1885 | Two-color terahertz response in bilayer graphene nanoribbons with spin-orbit coupling. <b>2011</b> , 98, 061107   | 8   |
| 1884 | Transport behavior and negative magnetoresistance in chemically reduced graphene oxide nanofilms. <b>2011</b> , 22, 335701                                  | 25  |
| 1883 | High Throughput Preparation of Large Area Transparent Electrodes Using Non-Functionalized Graphene Nanoribbons. <b>2011</b> , 23, 935-939                   | 19  |
| 1882 | Spectroscopic ellipsometry of few-layer graphene. <b>2011</b> , 5, 051809   | 29  |
| 1881 | POLY(ETHYLENE CO-VINYL ACETATE)-ASSISTED ONE-STEP TRANSFER OF ULTRA-LARGE GRAPHENE. <b>2011</b> , 06, 59-65   | 31  |

|      |  |     |
|------|--|-----|
| 1880 | Carbon nanostructures for solar energy conversion schemes. <b>2011</b> , 47, 606-10  | 126 |
| 1879 | Enhanced infrared light harvesting of inorganic nanocrystal photovoltaic and photodetector on graphene electrode. <b>2011</b> , 98, 263509                         | 19  |
| 1878 | Local conductance measurement of graphene layer using conductive atomic force microscopy. <b>2011</b> , 110, 054307  | 43  |
| 1877 | Uncooled infrared sensing using graphene. <b>2011</b> ,  | 1   |
| 1876 | Performance of large-area few-layer graphene saturable absorber in femtosecond bulk laser. <b>2011</b> , 99, 261107  | 46  |
| 1875 | Direct formation of graphene-metal hybrid on dielectric surfaces by metal-induced crystallization. <b>2011</b> ,   |     |
| 1874 | Dynamical polarization of graphene in a magnetic field. <b>2011</b> , 83,  | 49  |
| 1873 | Stretchable, transparent graphene interconnects for arrays of microscale inorganic light emitting diodes on rubber substrates. <b>2011</b> , 11, 3881-6            | 281 |
| 1872 | Hot carrier transport and photocurrent response in graphene. <b>2011</b> , 11, 4688-92   | 314 |
| 1871 | Faraday effect in graphene enclosed in an optical cavity and the equation of motion method for the study of magneto-optical transport in solids. <b>2011</b> , 84, | 104 |
| 1870 | Development of graphene-based optical detectors for infrared sensing applications. <b>2011</b> ,   | 2   |
| 1869 | Graphene Composites. <b>2011</b> ,   | 4   |
| 1868 | Nanopillar InGaN/GaN light emitting diodes integrated with homogeneous multilayer graphene electrodes. <b>2011</b> , 21, 17688                                     | 30  |
| 1867 | Multi-layer graphene grid and nanowire fabrication and printing. <b>2011</b> ,   |     |
| 1866 | Rational design of hybrid graphene films for high-performance transparent electrodes. <b>2011</b> , 5, 6472-9  | 265 |
| 1865 | Gate-activated photoresponse in a graphene p-n junction. <b>2011</b> , 11, 4134-7  | 330 |
| 1864 | Spin and the honeycomb lattice: lessons from graphene. <b>2011</b> , 106, 116803   | 73  |
| 1863 | A role for graphene in silicon-based semiconductor devices. <b>2011</b> , 479, 338-44  | 556 |

|      |   |      |
|------|---|------|
| 1862 | 2D materials: to graphene and beyond. <b>2011</b> , 3, 20-30  | 1095 |
| 1861 | Nobel Lecture: Graphene: Materials in the Flatland*. <b>2011</b> , 83, 837-849  | 584  |
| 1860 | Nobel Lecture: Random walk to graphene*. <b>2011</b> , 83, 851-862  | 286  |
| 1859 | Microscopic theory of absorption and ultrafast many-particle kinetics in graphene. <b>2011</b> , 84,                                  | 210  |
| 1858 | Graphene-based bimorph microactuators. <b>2011</b> , 11, 977-81   | 147  |
| 1857 | Graphene flash memory. <b>2011</b> , 5, 7812-7  | 204  |
| 1856 | Transfer of CVD-grown monolayer graphene onto arbitrary substrates. <b>2011</b> , 5, 6916-24  | 1059 |
| 1855 | Large energy laser pulses with high repetition rate by graphene Q-switched solid-state laser. <b>2011</b> , 19, 9950-5                | 99   |
| 1854 | Thickness determination of graphene on metal substrate by reflection spectroscopy. <b>2011</b> , 19, 17226-31                         | 21   |
| 1853 | Graphene saturable absorber mirror for ultra-fast-pulse solid-state laser. <b>2011</b> , 36, 1948-50                                  | 151  |
| 1852 | High-quality, large-area monolayer graphene for efficient bulk laser mode-locking near 1.25 $\mu\text{m}$ . <b>2011</b> , 36, 4089-91 | 107  |
| 1851 | Full-band quantum-dynamical theory of saturation and four-wave mixing in graphene. <b>2011</b> , 36, 4569-71                          | 30   |
| 1850 | Single-layer graphene cathodes for organic photovoltaics. <b>2011</b> , 98, 123303  | 53   |
| 1849 | Reversible electrical reduction and oxidation of graphene oxide. <b>2011</b> , 5, 2475-82   | 143  |
| 1848 | Atomically thin surface cloak using graphene monolayers. <b>2011</b> , 5, 5855-63   | 525  |
| 1847 | Optics of semiconductors with a linear electron spectrum. <b>2011</b> , 37, 480-484   | 2    |
| 1846 | Metal/graphene sheets as p-type transparent conducting electrodes in GaN light emitting diodes. <b>2011</b> , 99, 041115              | 50   |
| 1845 | Graphene Oxides Exhibit Limited Cathodic Potential Window Due to Their Inherent Electroactivity. <b>2011</b> , 115, 17647-17650       | 41   |



|      |   |     |
|------|---|-----|
| 1844 | Fullerenes, carbon nanotubes, and graphene for molecular electronics. <b>2012</b> , 312, 127-74   | 19  |
| 1843 | Growth of graphene from food, insects, and waste. <b>2011</b> , 5, 7601-7   | 384 |
| 1842 | Electronic Properties of Multilayer Graphene. <b>2011</b> , 325-356   | 0   |
| 1841 | Graphene bubbles with controllable curvature. <b>2011</b> , 99, 093103  | 143 |
| 1840 | Top laminated graphene electrode in a semitransparent polymer solar cell by simultaneous thermal annealing/releasing method. <b>2011</b> , 5, 6564-70   | 172 |
| 1839 | Drude weight, plasmon dispersion, and ac conductivity in doped graphene sheets. <b>2011</b> , 84,   | 130 |
| 1838 | High-performance graphene-based transparent flexible heaters. <b>2011</b> , 11, 5154-8  | 396 |
| 1837 | Advanced mechanical properties of graphene paper. <b>2011</b> , 109, 014306   | 132 |
| 1836 | Thermal conductivity of suspended pristine graphene measured by Raman spectroscopy. <b>2011</b> , 83,   | 269 |
| 1835 | Assembly of chemically modified graphene: methods and applications. <b>2011</b> , 21, 3311-3323   | 231 |
| 1834 | Basics of Carbon Nanotube and Its Applications-High expectations of technological innovation by carbon nanotube as new carbon material, and facing challenges for its practical applications-. <b>2011</b> , 127, 61-68 |     |
| 1833 | Non-thermal ablation of graphite by ultrashort pulsed fs-laser radiation. <b>2011</b> ,   |     |
| 1832 | Electronic Transport Properties of Few-Layer Graphene Materials. <b>2011</b> ,  | 2   |
| 1831 | Nonlinear Optical Properties of Graphene and Carbon Nanotube Composites. <b>2011</b> ,  | 8   |
| 1830 | Tailoring the thermal Casimir force with graphene. <b>2011</b> , 96, 14006  | 33  |
| 1829 | Imaging of Bernal stacked and misoriented graphene and boron nitride: experiment and simulation. <b>2011</b> , 244, 152-8   | 19  |
| 1828 | It's still all about graphene. <b>2011</b> , 10, 1  | 48  |
| 1827 | Broadband graphene polarizer. <b>2011</b> , 5, 411-415  | 806 |

|      |  |      |
|------|--|------|
| 1826 | Giant Faraday rotation in single- and multilayer graphene. <b>2011</b> , 7, 48-51  | 428  |
| 1825 | A graphene-based broadband optical modulator. <b>2011</b> , 474, 64-7  | 2385 |
| 1824 | Graphene-based passively Q-switched diode-side-pumped Nd:YAG solid laser. <b>2011</b> , 284, 5353-5356   | 22   |
| 1823 | Sensitivity enhancement of a surface plasmon resonance based biomolecules sensor using graphene and silicon layers. <b>2011</b> , 160, 623-631 | 206  |
| 1822 | Massive Dirac electron tunneling through a time-periodic potential in single layer graphene. <b>2011</b> , 375, 4065-4069                      | 8    |
| 1821 | Enhanced mechanical and electrical properties of polyimide film by graphene sheets via in situ polymerization. <b>2011</b> , 52, 5237-5242     | 192  |
| 1820 | Electron transport and excitations in graphene. <b>2011</b> , 3, 352-362   | 3    |
| 1819 | Graphene-Driven Revolutions in ICT and Beyond. <b>2011</b> , 7, 30-33  | 9    |
| 1818 | Optical Frequency Conductance, Susceptance and Admittance of Quantum Wells. <b>2011</b> , 47, 500-509  | 3    |
| 1817 | Tuning the electronic transport properties of grapheme through functionalisation with fluorine. <b>2011</b> , 6, 526                           | 90   |
| 1816 | The promotion of neurite sprouting and outgrowth of mouse hippocampal cells in culture by graphene substrates. <b>2011</b> , 32, 9374-82       | 335  |
| 1815 | Flame synthesis of graphene films in open environments. <b>2011</b> , 49, 5064-5070  | 79   |
| 1814 | Fabrication of graphene films on TiO <sub>2</sub> nanotube arrays for photocatalytic application. <b>2011</b> , 49, 5312-5320                  | 116  |
| 1813 | Ultrasonication-assisted ultrafast reduction of graphene oxide by zinc powder at room temperature. <b>2011</b> , 49, 5389-5397                 | 296  |
| 1812 | Electrochemistry of folded graphene edges. <b>2011</b> , 3, 2256-60  | 69   |
| 1811 | Electrodynamics of correlated electron materials. <b>2011</b> , 83, 471-541  | 501  |
| 1810 | Graphene plasmonics for tunable terahertz metamaterials. <b>2011</b> , 6, 630-4  | 2094 |
| 1809 | Graphene Sensors. <b>2011</b> , 11, 3161-3170  | 290  |

|      |  |      |
|------|--|------|
| 1808 | Functionalization of pristine graphene with perfluorophenyl azides. <b>2011</b> , 21, 3273                                   | 70   |
| 1807 | Acoustic phonons and spin relaxation in graphene nanoribbons. <b>2011</b> , 84,  | 27   |
| 1806 | Observation of room-temperature high-energy resonant excitonic effects in graphene. <b>2011</b> , 84,                        | 43   |
| 1805 | Solution processing of transparent conductors: from flask to film. <b>2011</b> , 40, 5406-41                                 | 276  |
| 1804 | Strong plasmonic enhancement of photovoltage in graphene. <b>2011</b> , 2, 458   | 679  |
| 1803 | Infrared spectroscopy of wafer-scale graphene. <b>2011</b> , 5, 9854-60  | 159  |
| 1802 | Hot phonon decay in supported and suspended exfoliated graphene. <b>2011</b> , 83,   | 60   |
| 1801 | Liquid-phase exfoliation, functionalization and applications of graphene. <b>2011</b> , 3, 2118-26                           | 241  |
| 1800 | Graphene plasmonics: a platform for strong light-matter interactions. <b>2011</b> , 11, 3370-7                               | 2008 |
| 1799 | Broadband light-induced absorbance change in multilayer graphene. <b>2011</b> , 11, 1540-5                                   | 86   |
| 1798 | Single-color pyrometry of individual incandescent multiwalled carbon nanotubes. <b>2011</b> , 84,                            | 9    |
| 1797 | Electrophoretic graphene for transparent counter electrodes in dye-sensitized solar cells. <b>2011</b> , 47, 281             | 25   |
| 1796 | Graphene counter electrodes for dye-sensitized solar cells prepared by electrophoretic deposition. <b>2011</b> , 21, 7548    | 234  |
| 1795 | Optical response of graphene under intense terahertz fields. <b>2011</b> , 83,   | 99   |
| 1794 | Nanotube and Graphene Polymer Composites for Photonics and Optoelectronics. <b>2011</b> , 279-354                            | 5    |
| 1793 | Modulation of specific heat in graphene by uniaxial strain. <b>2011</b> , 84, 385-390  | 21   |
| 1792 | Raman spectroscopy of graphene and carbon nanotubes. <b>2011</b> , 60, 413-550   | 634  |
| 1791 | Micro-Raman and micro-transmission imaging of epitaxial graphene grown on the Si and C faces of 6H-SiC. <b>2011</b> , 6, 478 | 18   |

|      |   |      |
|------|---|------|
| 1790 | Controlled Growth of Multilayer, Few-Layer, and Single-Layer Graphene on Metal Substrates. <b>2011</b> , 115, 5232-5238                             | 107  |
| 1789 | Cu <sub>2</sub> ZnSnS <sub>4</sub> nanocrystals and graphene quantum dots for photovoltaics. <b>2011</b> , 3, 3040-8                                | 85   |
| 1788 | Electronic transport in two-dimensional graphene. <b>2011</b> , 83, 407-470   | 2416 |
| 1787 | Plasmon resonance enhanced multicolour photodetection by graphene. <b>2011</b> , 2, 579   | 546  |
| 1786 | Nanopatterning of fluorinated graphene by electron beam irradiation. <b>2011</b> , 11, 3912-6   | 159  |
| 1785 | Optically transparent cathode for dye-sensitized solar cells based on graphene nanoplatelets. <b>2011</b> , 5, 165-72                               | 476  |
| 1784 | New directions in science and technology: two-dimensional crystals. <b>2011</b> , 74, 082501  | 185  |
| 1783 | Raman scattering of monolayer graphene: the temperature and oxygen doping effects. <b>2011</b> , 44, 185404   | 34   |
| 1782 | A highly practical route for large-area, single layer graphene from liquid carbon sources such as benzene and methanol. <b>2011</b> , 21, 16057     | 40   |
| 1781 | Synthesis of zirconium carbide (ZrC) nanoparticles covered with graphitic windows by pulsed plasma in liquid. <b>2011</b> , 1, 1083                 | 18   |
| 1780 | Macroscopic single-domain graphene sheet on Ni(111). <b>2011</b> , 43, 1491-1493  | 11   |
| 1779 | Monolayer graphene as a saturable absorber in a mode-locked laser. <b>2011</b> , 4, 297-307   | 322  |
| 1778 | Synthesis of large area, homogeneous, single layer graphene films by annealing amorphous carbon on Co and Ni. <b>2011</b> , 4, 531-540              | 73   |
| 1777 | Sodium citrate: A universal reducing agent for reduction / decoration of graphene oxide with Au nanoparticles. <b>2011</b> , 4, 599-611             | 137  |
| 1776 | Orthogonal test design for preparation of TiO <sub>2</sub> /Graphene composites and study on its photocatalytic activity. <b>2011</b> , 30, 271-275 | 6    |
| 1775 | Doping graphene films via chemically mediated charge transfer. <b>2011</b> , 6, 111   | 34   |
| 1774 | Multiscale investigation of graphene layers on 6H-SiC(000-1). <b>2011</b> , 6, 171  | 13   |
| 1773 | Can graphene make better HgCdTe infrared detectors?. <b>2011</b> , 6, 250   | 18   |

- 1772 Graphene-based materials: synthesis, characterization, properties, and applications. **2011**, 7, 1876-902 1968
- 1771 Centimeter-scale high-resolution metrology of entire CVD-grown graphene sheets. **2011**, 7, 2598-606 25
- 1770 Flexible and transparent electrothermal film heaters based on graphene materials. **2011**, 7, 3186-92 311
- 1769 Micro/nanoscale spatial resolution temperature probing for the interfacial thermal characterization of epitaxial graphene on 4H-SiC. **2011**, 7, 3324-33 84
- 1768 Graphene in biosensing. **2011**, 14, 308-315 621
- 1767 Large-Scale Synthesis of Bi-layer Graphene in Strongly Coupled Stacking Order. **2011**, 21, 911-917 85
- 1766 Spontaneous Formation of Liquid Crystals in Ultralarge Graphene Oxide Dispersions. **2011**, 21, 2978-2988 314
- 1765 Electromechanical Actuators Based on Graphene and Graphene/Fe<sub>3</sub>O<sub>4</sub> Hybrid Paper. **2011**, 21, 3778-3784 159
- 1764 Graphene Versus Carbon Nanotubes in Electronic Devices. **2011**, 21, 3806-3826 194
- 1763 Triangular Graphene Grain Growth on Cube-Textured Cu Substrates. **2011**, 21, 3868-3874 27
- 1762 Emerging transparent electrodes based on thin films of carbon nanotubes, graphene, and metallic nanostructures. **2011**, 23, 1482-513 1737
- 1761 Graphene functionalized with azo polymer brushes: surface-initiated polymerization and photoresponsive properties. **2011**, 23, 1122-5 105
- 1760 Transparent flexible organic transistors based on monolayer graphene electrodes on plastic. **2011**, 23, 1752-6 175
- 1759 Graphene as transparent electrode material for organic electronics. **2011**, 23, 2779-95 612
- 1758 Transparent conductive graphene films synthesized by ambient pressure chemical vapor deposition used as the front electrode of CdTe solar cells. **2011**, 23, 3202-6 123
- 1757 Infrared photodetectors based on reduced graphene oxide and graphene nanoribbons. **2011**, 23, 5419-24 256
- 1756 Inking elastomeric stamps with micro-patterned, single layer graphene to create high-performance OFETs. **2011**, 23, 3531-5 87
- 1755 Graphene/carbon nanotube hybrid-based transparent 2D optical array. **2011**, 23, 3809-14 32

|      |   |     |
|------|---|-----|
| 1754 | Interphases in graphene polymer-based nanocomposites: achievements and challenges. <b>2011</b> , 23, 5302-10                                  | 228 |
| 1753 | Transfer-free growth of few-layer graphene by self-assembled monolayers. <b>2011</b> , 23, 4392-7   | 75  |
| 1752 | Graphene Based Materials: Enhancing Solar Energy Harvesting. <b>2011</b> , 1, 448-452   | 136 |
| 1751 | Graphene and Related Materials in Electrochemical Sensing. <b>2011</b> , 23, 803-826  | 225 |
| 1750 | Zufallswege zum Graphen (Nobel-Aufsatz). <b>2011</b> , 123, 7100-7122   | 21  |
| 1749 | Graphen: Materialien im Flachland (Nobel- Aufsatz). <b>2011</b> , 123, 7123-7141  | 22  |
| 1748 | Random walk to graphene (Nobel lecture). <b>2011</b> , 50, 6966-85  | 118 |
| 1747 | Graphene: materials in the Flatland (Nobel lecture). <b>2011</b> , 50, 6986-7002  | 133 |
| 1746 | Charm-bracelet-type poly(N-vinylcarbazole) functionalized with reduced graphene oxide for broadband optical limiting. <b>2011</b> , 17, 780-5 | 63  |
| 1745 | Electrochemistry at chemically modified graphenes. <b>2011</b> , 17, 10763-70   | 272 |
| 1744 | Conjugated polymer-grafted reduced graphene oxide for nonvolatile rewritable memory. <b>2011</b> , 17, 13646-52                               | 67  |
| 1743 | An all-graphene based transparent and flexible field emission device. <b>2011</b> , 49, 1614-1619   | 87  |
| 1742 | Surface-enhanced Raman Scattering Study on 1D-2D Graphene-based Structures. <b>2011</b> , 49, 3149-3157                                       | 18  |
| 1741 | A simple method to produce almost perfect graphene on highly oriented pyrolytic graphite. <b>2011</b> , 49, 3242-3249                         | 90  |
| 1740 | Ultrafast modulation of optical transitions in monolayer and multilayer graphene. <b>2011</b> , 49, 4781-4785                                 | 24  |
| 1739 | Graphene/silicon photoelectrode with high and stable photoelectrochemical response in aqueous solution. <b>2011</b> , 257, 7714-7718          | 18  |
| 1738 | Electrochemical reduction of graphene oxide in organic solvents. <b>2011</b> , 56, 5363-5368  | 80  |
| 1737 | Carbonaceous nanomaterials for the enhancement of TiO <sub>2</sub> photocatalysis. <b>2011</b> , 49, 741-772                                  | 967 |

|      |  |      |
|------|--|------|
| 1736 | The production of oxygenated polycrystalline graphene by one-step ethanol-chemical vapor deposition. <b>2011</b> , 49, 3789-3795 | 33   |
| 1735 | Tuneable electronic properties in graphene. <b>2011</b> , 6, 42-60   | 233  |
| 1734 | Graphene based materials: Past, present and future. <b>2011</b> , 56, 1178-1271  | 2607 |
| 1733 | Platelet graphite nanofibers/soft polymer composites for electrochemical sensing and biosensing. <b>2011</b> , 156, 79-83        | 10   |
| 1732 | In-situ observation of graphene growth on Ni(111). <b>2011</b> , 605, 1095-1098  | 67   |
| 1731 | Nanometer-scale lithography on microscopically clean graphene. <b>2011</b> , 22, 505303  | 20   |
| 1730 | Intraband Optical Transitions in Graphene. <b>2011</b> ,   |      |
| 1729 | Growth of graphene layers for thin films. <b>2011</b> , 211-227  |      |
| 1728 | Graphene Nanophotonics. <b>2011</b> , 3, 293-295   | 8    |
| 1727 | Two distinct ballistic processes in graphene at the Dirac point. <b>2011</b> , 84,   | 9    |
| 1726 | Doped graphene nanohole arrays for flexible transparent conductors. <b>2011</b> , 99, 023111                                     | 33   |
| 1725 | Optical conductivity of disordered graphene beyond the Dirac cone approximation. <b>2011</b> , 84,                               | 50   |
| 1724 | Transport properties of graphene across strain-induced nonuniform velocity profiles. <b>2011</b> , 84,                           | 73   |
| 1723 | Linear response correlation functions in strained graphene. <b>2011</b> , 84,  | 40   |
| 1722 | Scalable nanoimprint patterning of thin graphitic oxide sheets and in situ reduction. <b>2011</b> , 29, 011023                   | 6    |
| 1721 | Casimir interactions between graphene sheets and metamaterials. <b>2011</b> , 84,  | 45   |
| 1720 | Finite-temperature Casimir effect for graphene. <b>2011</b> , 84,  | 163  |
| 1719 | Current injection by coherent one- and two-photon excitation in graphene and its bilayer. <b>2011</b> , 83,                      | 41   |

|      |  |    |
|------|--|----|
| 1718 | Solution-processed transparent electrodes. <b>2011</b> , 36, 749-755   | 98 |
| 1717 | Fabrication and performance of graphene nanoelectromechanical systems. <b>2011</b> , 29, 050801  | 44 |
| 1716 | Quantum oscillations in a tunable graphene bilayer. <b>2011</b> , 37, 815-818  | 3  |
| 1715 | Unintentional doping induced splitting of G peak in bilayer graphene. <b>2011</b> , 99, 233110   | 13 |
| 1714 | Pseudospin in optical and transport properties of graphene. <b>2011</b> , 107, 156801  | 46 |
| 1713 | Nonlinear optical properties of bilayer graphene in terahertz regime. <b>2011</b> ,  |    |
| 1712 | Influence of carrier density on the electronic cooling channels of bilayer graphene. <b>2011</b> , 99, 103104  | 5  |
| 1711 | The fine structure constant determines spontaneous emission rates from semiconductors. <b>2011</b> , 98, 211117  | 1  |
| 1710 | Nonlinear transverse current response in zigzag graphene nanoribbons. <b>2011</b> , 110, 073713  | 1  |
| 1709 | Graphene arch gate SiO <sub>2</sub> shell silicon nanowire core field effect transistors. <b>2011</b> , 99, 212102   | 4  |
| 1708 | Subgap optical conductivity in semihydrogenated graphene. <b>2011</b> , 98, 042107   | 19 |
| 1707 | Data Transmission Performance of Few-Layer Graphene Ribbons. <b>2011</b> , 1344, 1   |    |
| 1706 | Rapid large-scale Characterization of CVD Graphene Layers on Glass using Fluorescence Quenching Microscopy. <b>2011</b> , 1344, 1  |    |
| 1705 | Graphite Thin Films Consisting of Nanograins of Multilayer Graphene on Sapphire Substrates Directly Grown by Alcohol Chemical Vapor Deposition. <b>2011</b> , 50, 04DH12 | 23 |
| 1704 | Electron tunneling in single layer graphene with an energy gap. <b>2011</b> , 20, 027201   | 16 |
| 1703 | Transport Properties of Graphene with Nanoscale Lateral Resolution. <b>2011</b> , 247-285  | 8  |
| 1702 | Thermal Transport Measurements of Bilayer and Few-Layer Graphene Supported on Silicon Dioxide. <b>2011</b> ,   | 1  |
| 1701 | The research of preparation and catalytic property of the titanium plate which loaded with the graphene modified SnO <sub>2</sub> . <b>2011</b> ,                        | 1  |



- 1700 Laser-based imaging of individual carbon nanostructures. **2011**, 3, 91-99 11
- 1699 THE GRAPHENE-SiC SUBSTRATE INTERACTION ENHANCED NEAR-INFRARED ABSORPTION. **2011**, 25, 1393-1399
- 1698 GRAPHENE: MATERIALS IN THE FLATLAND. **2011**, 25, 4081-4106 19
- 1697 Theory of giant Faraday rotation and Goos-Hñchen shift in graphene. **2011**, 96, 27008 18
- 1696 Effect of uniaxial strain on the Drude weight of graphene. **2011**, 31, 98-101 8
- 1695 Polarization-sensitive absorption of THz radiation by interacting electrons in chirally stacked multilayer graphene. **2012**, 14, 095005 16
- 1694 Universal conductivity and dimensional crossover in multi-layer graphene. **2012**, 97, 37003 1
- 1693 QUANTUM FIELD THEORY IN GRAPHENE. **2012**, 14, 88-99 8
- 1692 Evaluation of Photodetection Properties of Graphene-Silicon Schottky IR Detector. **2012**, 4, 464-469
- 1691 Graphene Metrology Using Fluorescence Quenching of Different Fluorescent Dyes. **2012**, 1451, 51-56 1
- 1690 Graphene plasmons and retardation: Strong light-matter coupling. **2012**, 99, 27006 19
- 1689 Many-electron effects on optical absorption spectra of strained graphene. **2012**, 27, 403-409 8
- 1688 Light-trapping design of graphene transparent electrodes for efficient thin-film silicon solar cells. **2012**, 51, 6245-51 5
- 1687 Optical self-energy in graphene due to correlations. **2012**, 24, 245601 9
- 1686 GraXe, graphene and xenon for neutrinoless double beta decay searches. **2012**, 2012, 037-037 4
- 1685 Electric-field-induced band gap of bilayer graphene in ionic liquid. **2012**, 30, 03D111 15
- 1684 Gate tunable graphene-silicon Ohmic/Schottky contacts. **2012**, 101, 223113 37
- 1683 Preparation of Sandwich-Like TiO<sub>2</sub>/Graphene/TiO<sub>2</sub> Films and its Application in Photocatalysis. **2012**, 465, 80-85

|      |  |     |
|------|--|-----|
| 1682 | Stable mode-locked fiber laser based on CVD fabricated graphene saturable absorber. <b>2012</b> , 20, 2460-5   | 137 |
| 1681 | Broadband graphene electro-optic modulators with sub-wavelength thickness. <b>2012</b> , 20, 5264-9  | 105 |
| 1680 | Enhancement of laser action in ZnO nanorods assisted by surface plasmon resonance of reduced graphene oxide nanoflakes. <b>2012</b> , 20 Suppl 6, A799-805 | 25  |
| 1679 | Probing near Dirac point electron-phonon interaction in graphene. <b>2012</b> , 2, 1713  | 9   |
| 1678 | Giant Faraday and Kerr rotation with strained graphene. <b>2012</b> , 37, 3237-9   | 17  |
| 1677 | Optical nonlinearity of silver-decorated graphene. <b>2012</b> , 29, 669   | 72  |
| 1676 | Effect of Coulomb interactions on the physical observables of graphene. <b>2012</b> , T146, 014015   | 18  |
| 1675 | Nonlinear Transmittance of bilayer graphene in terahertz regime. <b>2012</b> ,   |     |
| 1674 | Effect of the polarity of carbon-fluorine bonds on the work function of plasma-fluorinated epitaxial graphene. <b>2012</b> , 101, 111602                   | 25  |
| 1673 | Applicability of continuum absorption in semiconductor quantum wells to absolute absorption-strength standards. <b>2012</b> , 101, 032108                  | 2   |
| 1672 | Graphene-protein bioelectronic devices with wavelength-dependent photoresponse. <b>2012</b> , 100, 033110  | 39  |
| 1671 | Noncatalytic chemical vapor deposition of graphene on high-temperature substrates for transparent electrodes. <b>2012</b> , 100, 022102                    | 61  |
| 1670 | Effective thermal conductivity of graphene-based composites. <b>2012</b> , 101, 121916   | 83  |
| 1669 | Magneto-optical conductivity in graphene including electron-phonon coupling. <b>2012</b> , 85,   | 32  |
| 1668 | Different responses between undoped and N-doped few-layer graphene based photonic devices. <b>2012</b> ,   |     |
| 1667 | Optical absorption in graphene integrated on silicon waveguides. <b>2012</b> , 101, 111110   | 132 |
| 1666 | Exact renormalization group computation of the optical conductivity of graphene. <b>2012</b> , 85,   | 8   |
| 1665 | Fine structure constant and quantized optical transparency of plasmonic nanoarrays. <b>2012</b> , 3, 640   | 12  |

|      |  |     |
|------|--|-----|
| 1664 | Interaction corrections to the polarization function of graphene. <b>2012</b> , 86,  | 73  |
| 1663 | Intraband conductivity response in graphene observed using ultrafast infrared-pump visible-probe spectroscopy. <b>2012</b> , 86,   | 32  |
| 1662 | Low-energy electron transmission imaging of clusters on free-standing graphene. <b>2012</b> , 101, 113117  | 38  |
| 1661 | Temperature dependence of the paramagnetic spin susceptibility of doped graphene. <b>2012</b> , 85,  | 3   |
| 1660 | Investigation of the improved performance in a graphene/polycrystalline BiFeO <sub>3</sub> /Pt photovoltaic heterojunction: Experiment, modeling, and application. <b>2012</b> , 112, 054103 | 20  |
| 1659 | Sensitive real-time monitoring of refractive indexes using a novel graphene-based optical sensor. <b>2012</b> , 2, 908   | 59  |
| 1658 | Contactless impedance measurement of large-area high-quality graphene. <b>2012</b> ,   | 4   |
| 1657 | Interplay of intra- and interband absorption in a disordered graphene. <b>2012</b> , 86,   | 19  |
| 1656 | Distinguishing Coulomb and electron-phonon interactions for massless Dirac fermions. <b>2012</b> , 85,   | 4   |
| 1655 | QUANTUM FIELD THEORY IN GRAPHENE. <b>2012</b> , 27, 1260007  | 30  |
| 1654 | Synthesis of Nitrogen-Doped Graphene by Plasma-Enhanced Chemical Vapor Deposition. <b>2012</b> , 51, 055101  | 11  |
| 1653 | Geometrical and topological aspects of graphene and related materials. <b>2012</b> , 45, 383001  | 46  |
| 1652 | Disorder-free sputtering method on graphene. <b>2012</b> , 2, 032121   | 27  |
| 1651 | Tm-doped fiber laser mode-locked by graphene-polymer composite. <b>2012</b> , 20, 25077-84   | 233 |
| 1650 | Thermal conductivity measurements of suspended graphene with and without wrinkles by micro-Raman mapping. <b>2012</b> , 23, 365701   | 96  |
| 1649 | Double trigonal warping and the anomalous quantum Hall step in bilayer graphene with Rashba spin-orbit coupling. <b>2012</b> , 24, 485303  | 1   |
| 1648 | Padé approximant spectral fit for FDTD simulation of graphene in the near infrared. <b>2012</b> , 2, 771   | 54  |
| 1647 | Monolayer graphene mode-locked 63-fs Ti:sapphire laser. <b>2012</b> ,  |     |

|      |  |       |
|------|--|-------|
| 1646 | Annealing Temperature and Substrate Effects on the Raman Spectra of Transferred CVD Graphene. <b>2012</b> , 1407, 93   |       |
| 1645 | Large-area Metrology of CVD-grown Graphene Layers on Copper Foil Substrates. <b>2012</b> , 1451, 45-49   |       |
| 1644 | Chemically modified multilayer graphene with metal interlayer as an efficient current spreading electrode for InGaN/GaN blue light-emitting diodes. <b>2012</b> , 45, 145101 | 32    |
| 1643 | Direct naked-eye detection of chiral and Faraday effects in white light. <b>2012</b> , 97, 64002   | 3     |
| 1642 | Synthesis and characterization of graphene films by hot filament chemical vapor deposition. <b>2012</b> , T149, 014068   | 7     |
| 1641 | Graphene, carbon nanotubes and nanoparticles in cell metabolism. <b>2012</b> , 13, 251-6   | 5     |
| 1640 | Role of atomic terraces and steps in the electron transport properties of epitaxial graphene grown on SiC. <b>2012</b> , 2, 012115   | 19    |
| 1639 | Spontaneously ordered states in bilayer graphene. <b>2012</b> , T146, 014011   | 20    |
| 1638 | Two distinct ballistic processes in graphene. <b>2012</b> , 400, 042038  |       |
| 1637 | The Hubbard model and optics: reflectivity of 1D and 2D systems. <b>2012</b> , 398, 012009   | 2     |
| 1636 | Different Characterization Techniques to Evaluate Graphene and Its Properties. <b>2012</b> , 118-161   |       |
| 1635 | Perspectives of applied graphene: Polymer solar cells. <b>2012</b> , 37, 1805-1828   | 127   |
| 1634 | Recent developments on graphene and graphene oxide based solid state gas sensors. <b>2012</b> , 173, 1-21  | 518   |
| 1633 | Semiconducting monolayer materials as a tunable platform for excitonic solar cells. <b>2012</b> , 6, 10082-9   | 124   |
| 1632 | Linear and nonlinear optical properties of modified graphene-based materials. <b>2012</b> , 37, 1283-1289  | 22    |
| 1631 | Direct optical imaging of graphene in vitro by nonlinear femtosecond laser spectral reshaping. <b>2012</b> , 12, 5936-40   | 23    |
| 1630 | Graphene plasmonics. <b>2012</b> , 6, 749-758  | 2152  |
| 1629 | Electronics and optoelectronics of two-dimensional transition metal dichalcogenides. <b>2012</b> , 7, 699-712  | 10871 |

- 1628 Synthesis of transfer-free graphene on an insulating substrate using a solid phase reaction. **2012**, 4, 7791-6 19
- 1627 Diffusion mechanism of lithium ion through basal plane of layered graphene. **2012**, 134, 8646-54 294
- 1626 Thermal and Thermoelectric Transport in Nanostructures and Low-Dimensional Systems. **2012**, 16, 79-116 108
- 1625 Graphene for energy conversion and storage in fuel cells and supercapacitors. **2012**, 1, 534-551 548
- 1624 Electrical control of optical plasmon resonance with graphene. **2012**, 12, 5598-602 224
- 1623 Hybrid Semiconductor Nanostructures with Graphene Layers. **2012**, 167-195 3
- 1622 Synthesis of graphene by surface wave plasma chemical vapor deposition from camphor. **2012**, 209, 2510-2513 14
- 1621 Ab initio investigation of the electronic properties of graphene on InAs(111)A. **2012**, 24, 485004 3
- 1620 Carbon Nanoforms. **2012**, 995-1070
- 1619 Facile synthesis of few-layer graphene with a controllable thickness using rapid thermal annealing. **2012**, 4, 1777-82 25
- 1618 Band structure of plasmons and optical absorption enhancement in graphene on subwavelength dielectric gratings at infrared frequencies. **2012**, 86, 81
- 1617 Classical to quantum crossover of the cyclotron resonance in graphene: a study of the strength of intraband absorption. **2012**, 14, 095008 23
- 1616 Energy transfer from a single nitrogen-vacancy center in nanodiamond to a graphene monolayer. **2012**, 101, 233112 21
- 1615 Temperature-dependent electrical properties of graphene inkjet-printed on flexible materials. **2012**, 28, 13467-72 170
- 1614 Functional monolayers from carbon nanostructures [Fullerenes, carbon nanotubes, and graphene] as novel materials for solar energy conversion. **2012**, 256, 2628-2639 69
- 1613 Facile synthesis of water-soluble, highly fluorescent graphene quantum dots as a robust biological label for stem cells. **2012**, 22, 7461 581
- 1612 Graphene applications in electronics and photonics. **2012**, 37, 1225-1234 144
- 1611 Optimization of graphene/silicon heterojunction solar cells. **2012**, 3

|      |  |    |
|------|--|----|
| 1610 | Chapter 8:Dispersible Graphene OxidePolymer Nanocomposites. <b>2012</b> , 179-210  | 2  |
| 1609 | Spectroscopic imaging ellipsometry and Fano resonance modeling of graphene. <b>2012</b> , 112, 123523  | 43 |
| 1608 | Thermal conductivity of sawtooth-like graphene nanoribbons: A molecular dynamics study. <b>2012</b> , 112, 123508  | 12 |
| 1607 | Extreme sensitivity of graphene photoconductivity to environmental gases. <b>2012</b> , 3, 1228  | 94 |
| 1606 | Weak localization scattering lengths in epitaxial, and CVD graphene. <b>2012</b> , 86,   | 47 |
| 1605 | Superconductivity in metal-coated graphene. <b>2012</b> , 249, 2544-2548   | 12 |
| 1604 | Enhanced optical absorbance of CVD-graphene monolayer by combination with photonic crystal slab. <b>2012</b> , 249, 2530-2533                              | 10 |
| 1603 | Chemically-modified graphene sheets as an active layer for eco-friendly metal electroplating on plastic substrates. <b>2012</b> , 521, 270-274             | 10 |
| 1602 | Graphene applications in Schottky barrier solar cells. <b>2012</b> , 522, 390-394  | 37 |
| 1601 | Single-step formation of a graphene-metal hybrid transparent and electrically conductive film. <b>2012</b> , 23, 115301                                    | 6  |
| 1600 | AN IMPROVED METHOD FOR TRANSFERRING GRAPHENE GROWN BY CHEMICAL VAPOR DEPOSITION. <b>2012</b> , 07, 1150001   | 34 |
| 1599 | Controlled growth of carbon nanotube-graphene hybrid materials for flexible and transparent conductors and electron field emitters. <b>2012</b> , 4, 632-8 | 97 |
| 1598 | A depolarizer as a possible precise sunstone for Viking navigation by polarized skylight. <b>2012</b> , 468, 671-684                                       | 33 |
| 1597 | Measuring the thickness of few-layer graphene by laser scanning microscopy. <b>2012</b> ,  | 1  |
| 1596 | Multilayer graphene growth by a metal-catalyzed crystallization of diamond-like carbon. <b>2012</b> ,  |    |
| 1595 | A graphene based saturable absorber on stable mode-locked fiber lasers employing nano-mica dispersant. <b>2012</b> ,                                       |    |
| 1594 | ZnSe nanoribbon/Si nanowire p-n heterojunction arrays and their photovoltaic application with graphene transparent electrodes. <b>2012</b> , 22, 22873     | 26 |
| 1593 | Performance of Graphene Mediated Saturable Absorber on Stable Mode-Locked Fiber Lasers Employing Different Nano-Dispersants. <b>2012</b> , 30, 3413-3419   | 2  |

- 1592 Concentration effect of dispersed-graphene based saturable absorber on stabilizing and shortening mode-locked pulse. **2012**,
- 1591 On the microscopic origin of bending of graphene nanoribbons in the presence of a perpendicular electric field. **2012**, 14, 9439-43 9
- 1590 Optical and structural characterization of epitaxial graphene on vicinal 6H-SiC(0001)Bi by spectroscopic ellipsometry, Auger spectroscopy, and STM. **2012**, 30, 04E106 19
- 1589 The Preparation of Graphene via Thermal Reduction Method. **2012**, 557-559, 1539-1542 1
- 1588 Nitrogen-doped graphene stabilized gold nanoparticles for aerobic selective oxidation of benzylic alcohols. **2012**, 2, 12438 70
- 1587 Hybrid effect of gas flow and light excitation in carbon/silicon Schottky solar cells. **2012**, 22, 3330 12
- 1586 Tunable bands in biased multilayer epitaxial graphene. **2012**, 4, 2962-7 17
- 1585 Fast and non-invasive conductivity determination by the dielectric response of reduced graphene oxide: an electrostatic force microscopy study. **2012**, 4, 7231-6 10
- 1584 Quantum magneto-optics of the graphite family. **2012**, 115, 1151-1164 8
- 1583 Concerted Chemical-Mechanical Reaction in Catalyzed Growth of Confined Graphene Layers into Hexagonal Disks. **2012**, 116, 9106-9113 1
- 1582 Dynamical conductivity of AA-stacked bilayer graphene. **2012**, 86, 83
- 1581 Direct Growth Properties of Graphene Layers on Sapphire Substrate by Alcohol-Chemical Vapor Deposition. **2012**, 51, 04DN03 2
- 1580 Graphene arrested in laponite-water colloidal glass. **2012**, 28, 4009-15 29
- 1579 Graphene Oxide Absorbers for Watt-Level High-Power Passive Mode-Locked Nd:GdVO<sub>4</sub> Laser Operating at 1  $\mu\text{m}$ . **2012**, 30, 3259-3262 61
- 1578 Bilayer graphene anode for small molecular organic electroluminescence. **2012**, 45, 245103 12
- 1577 Random matrices and quantum chaos in weakly disordered graphene nanoflakes. **2012**, 85, 26
- 1576 Direct growth of few-layer graphene films on SiO<sub>2</sub> substrates and their photovoltaic applications. **2012**, 22, 411-416 154
- 1575 Quasiparticle energy and optical excitations of gated bilayer graphene. **2012**, 86, 7

|      |  |     |
|------|--|-----|
| 1574 | Temperature dependent graphene suspension due to thermal Casimir interaction. <b>2012</b> , 101, 113118                                      | 37  |
| 1573 | Reduced Graphene Oxide Films as Solid Transducers in Potentiometric All-Solid-State Ion-Selective Electrodes. <b>2012</b> , 116, 22570-22578 | 85  |
| 1572 | Graphene for energy harvesting/storage devices and printed electronics. <b>2012</b> , 10, 1-8  | 98  |
| 1571 | Thermal transport in graphene. <b>2012</b> , 152, 1321-1330  | 142 |
| 1570 | Large-area graphene synthesis and its application to interface-engineered field effect transistors. <b>2012</b> , 152, 1350-1358             | 26  |
| 1569 | Optical spectroscopy of graphene: From the far infrared to the ultraviolet. <b>2012</b> , 152, 1341-1349                                     | 485 |
| 1568 | Effects of ambient conditions on the quality of graphene synthesized by chemical vapor deposition. <b>2012</b> , 86, 1867-1870               | 18  |
| 1567 | Graphene for impedimetric biosensing. <b>2012</b> , 37, 12-21  | 125 |
| 1566 | The production of nitrogen-doped graphene from mixed amine plus ethanol flames. <b>2012</b> , 520, 6850-6855                                 | 32  |
| 1565 | Phonon-mediated superconductivity in graphene by lithium deposition. <b>2012</b> , 8, 131-134  | 341 |
| 1564 | Polarization dependence of photocurrent in a metal-graphene-metal device. <b>2012</b> , 101, 073103  | 18  |
| 1563 | Enhanced ultraviolet response using graphene electrodes in organic solar cells. <b>2012</b> , 101, 063305                                    | 7   |
| 1562 | Enhanced internal quantum efficiency in graphene/InGaN multiple-quantum-well hybrid structures. <b>2012</b> , 101, 061905                    | 8   |
| 1561 | Doping of adsorbed graphene from defects and impurities in SiO <sub>2</sub> substrates. <b>2012</b> , 86,                                    | 38  |
| 1560 | Graphene-based materials for catalysis. <b>2012</b> , 2, 54-75   | 791 |
| 1559 | Wetting transparency of graphene. <b>2012</b> , 11, 217-22   | 831 |
| 1558 | Flexible and transparent all-graphene circuits for quaternary digital modulations. <b>2012</b> , 3, 1018                                     | 76  |
| 1557 | Raman spectroscopy of boron-doped single-layer graphene. <b>2012</b> , 6, 6293-300   | 209 |



|      |  |      |
|------|--|------|
| 1556 | Graphene conductance uniformity mapping. <b>2012</b> , 12, 5074-81   | 112  |
| 1555 | Dual-gated bilayer graphene hot-electron bolometer. <b>2012</b> , 7, 472-8   | 335  |
| 1554 | ZnO/Graphene Quantum Dot Solid-State Solar Cell. <b>2012</b> , 116, 20127-20131  | 175  |
| 1553 | Terahertz graphene optics. <b>2012</b> , 5, 667-678  | 73   |
| 1552 | Self-assembly and photopolymerization of sub-2 nm one-dimensional organic nanostructures on graphene. <b>2012</b> , 134, 16759-64                              | 58   |
| 1551 | Z-scan measurement of the nonlinear refractive index of graphene. <b>2012</b> , 37, 1856-8   | 502  |
| 1550 | Highly transparent nonvolatile resistive memory devices from silicon oxide and graphene. <b>2012</b> , 3, 1101   | 146  |
| 1549 | All graphene-based thin film transistors on flexible plastic substrates. <b>2012</b> , 12, 3472-6  | 198  |
| 1548 | Facile synthesis of TiO <sub>2</sub> /graphene composites for selective enrichment of phosphopeptides. <b>2012</b> , 4, 1577-80                                | 67   |
| 1547 | Optimizing the reinforcement of polymer-based nanocomposites by graphene. <b>2012</b> , 6, 2086-95   | 217  |
| 1546 | A roadmap for graphene. <b>2012</b> , 490, 192-200   | 6640 |
| 1545 | Graphene transfer: key for applications. <b>2012</b> , 4, 5527-37  | 352  |
| 1544 | On the nucleation of graphene by chemical vapor deposition. <b>2012</b> , 36, 73-77  | 14   |
| 1543 | Number of graphene layers exhibiting an influence on oxidation of DNA bases: analytical parameters. <b>2012</b> , 711, 29-31                                   | 19   |
| 1542 | Optical and structural properties of ZnO nanorods grown on graphene oxide and reduced graphene oxide film by hydrothermal method. <b>2012</b> , 258, 3109-3114 | 57   |
| 1541 | Growth of graphene-like thin films at low temperature by dual-frequency capacitively coupled plasma. <b>2012</b> , 258, 7751-7754                              | 4    |
| 1540 | Graphene/metal oxide composite electrode materials for energy storage. <b>2012</b> , 1, 107-131  | 1507 |
| 1539 | Theoretical approaches to graphene and graphene-based materials. <b>2012</b> , 7, 180-200  | 109  |

|      |  |     |
|------|--|-----|
| 1538 | Facile preparation of graphene-based chitosan films: Enhanced thermal, mechanical and antibacterial properties. <b>2012</b> , 358, 525-530   | 114 |
| 1537 | Preparation and properties of polyimide/graphene oxide nanocomposite films with Mg ion crosslinker. <b>2012</b> , 48, 1394-1405  | 61  |
| 1536 | The mechanics of graphene nanocomposites: A review. <b>2012</b> , 72, 1459-1476  | 893 |
| 1535 | Strong enhancement of light-matter interaction in graphene coupled to a photonic crystal nanocavity. <b>2012</b> , 12, 5626-31   | 204 |
| 1534 | Magneto-optical and optical probes of gapped ground states of bilayer graphene. <b>2012</b> , 86,  | 19  |
| 1533 | Patterns of Solution-Processed Graphene Oxide Produced by a Transfer Printing Method. <b>2012</b> , 159, H605-H609   | 11  |
| 1532 | Graphene: an emerging electronic material. <b>2012</b> , 24, 5782-825  | 603 |
| 1531 | Graphene-based electrodes. <b>2012</b> , 24, 5979-6004   | 756 |
| 1530 | Thermoacoustic sound generation from monolayer graphene for transparent and flexible sound sources. <b>2012</b> , 24, 6342-7   | 111 |
| 1529 | Functionalization of reduced graphite oxide sheets with a zwitterionic surfactant. <b>2012</b> , 13, 3682-90   | 32  |
| 1528 | Synthesis and applications of graphene-based TiO <sub>2</sub> photocatalysts. <b>2012</b> , 5, 1868-82   | 200 |
| 1527 | Faraday rotation in graphene. <b>2012</b> , 85, 1  | 31  |
| 1526 | Junction investigation of graphene/silicon Schottky diodes. <b>2012</b> , 7, 302   | 67  |
| 1525 | Zinc Phthalocyanine/Graphene Hybrid Material for Energy Conversion: Synthesis, Characterization, Photophysics, and Photoelectrochemical Cell Preparation. <b>2012</b> , 116, 20564-20573 | 102 |
| 1524 | Multiple-bilayered RGO/porphyrin films: from preparation to application in photoelectrochemical cells. <b>2012</b> , 22, 18879   | 40  |
| 1523 | Water structure and charge transfer phenomena at the liquid-graphene interface. <b>2012</b> , 14, 14605-10   | 17  |
| 1522 | Graphene plasmon waveguiding and hybridization in individual and paired nanoribbons. <b>2012</b> , 6, 431-40   | 564 |
| 1521 | Graphene-based photonic crystal to steer giant Faraday rotation. <b>2012</b> , 100, 241106   | 43  |

|      |   |      |
|------|---|------|
| 1520 | Synthesis, Characterization, and Selected Properties of Graphene. <b>2012</b> , 1-47  | 14   |
| 1519 | Physics of Quanta and Quantum Fields in Graphene. <b>2012</b> , 91-129  | 1    |
| 1518 | Embedding graphene nanoparticles into poly(N,N?-dimethylacrylamine) to prepare transparent nanocomposite films with high refractive index. <b>2012</b> , 22, 21218                                  | 25   |
| 1517 | Light-matter interaction in a microcavity-controlled graphene transistor. <b>2012</b> , 3, 906  | 297  |
| 1516 | Ultrafast hot-carrier-dominated photocurrent in graphene. <b>2012</b> , 7, 114-8  | 312  |
| 1515 | Excitation of terahertz surface plasmons on graphene surfaces by an elementary dipole and quantum emitter: Strong electrodynamic effect of dielectric support. <b>2012</b> , 86,                    | 38   |
| 1514 | Raman Spectroscopy for Characterization of Graphene. <b>2012</b> , 191-214  | 5    |
| 1513 | Review on the latest design of graphene-based inorganic materials. <b>2012</b> , 4, 6205-18   | 81   |
| 1512 | Graphene exfoliation in organic solvents and switching solubility in aqueous media with the aid of amphiphilic block copolymers. <b>2012</b> , 22, 21507  | 70   |
| 1511 | Solar Photoconversion Using Graphene/TiO <sub>2</sub> Composites: Nanographene Shell on TiO <sub>2</sub> Core versus TiO <sub>2</sub> Nanoparticles on Graphene Sheet. <b>2012</b> , 116, 1535-1543 | 272  |
| 1510 | Femtosecond population inversion and stimulated emission of dense Dirac fermions in graphene. <b>2012</b> , 108, 167401   | 188  |
| 1509 | Functionalization of graphene: covalent and non-covalent approaches, derivatives and applications. <b>2012</b> , 112, 6156-214  | 3041 |
| 1508 | Gate-dependent photoconductivity of single layer graphene grafted with metalloporphyrin molecules. <b>2012</b> , 100, 163116  | 5    |
| 1507 | Electronic properties of graphene: a perspective from scanning tunneling microscopy and magnetotransport. <b>2012</b> , 75, 056501  | 180  |
| 1506 | Effect of uniaxial strain on plasmon excitations in graphene. <b>2012</b> , 377, 012083   | 5    |
| 1505 | CVD growth of large area and uniform graphene on tilted copper foil for high performance flexible transparent conductive film. <b>2012</b> , 22, 18283  | 58   |
| 1504 | Photodiodes based on graphene oxide/silicon junctions. <b>2012</b> , 86, 2961-2966  | 82   |
| 1503 | Unzipping carbon nanotubes into nanoribbons upon oxidation: a first-principles study. <b>2012</b> , 4, 1254-7   | 16   |

|      |   |     |
|------|---|-----|
| 1502 | Improved electrical conductivity of graphene films integrated with metal nanowires. <b>2012</b> , 12, 5679-83   | 263 |
| 1501 | Electrochemically reduced graphene porous material as light absorber for light-driven thermoelectric generator. <b>2012</b> , 22, 17800                                   | 34  |
| 1500 | Dimensional dependence of photomechanical response in carbon nanostructure composites: a case for carbon-based mixed-dimensional systems. <b>2012</b> , 23, 215501        | 25  |
| 1499 | Near-field microwave scanning probe imaging of conductivity inhomogeneities in CVD graphene. <b>2012</b> , 23, 385706   | 40  |
| 1498 | Graphene for Stretchable Electronics. <b>2012</b> , 41-80   | 2   |
| 1497 | Production and processing of graphene and 2d crystals. <b>2012</b> , 15, 564-589  | 745 |
| 1496 | Graphene-based flexible and stretchable thin film transistors. <b>2012</b> , 4, 4870-82   | 125 |
| 1495 | Thermal conductivity of BN-C nanostructures. <b>2012</b> , 86,  | 332 |
| 1494 | Optical conductivity study of screening of many-body effects in graphene interfaces. <b>2012</b> , 99, 67009  | 20  |
| 1493 | Enhanced optical dichroism of graphene nanoribbons. <b>2012</b> , 86,   | 13  |
| 1492 | Effect of Temperature and Humidity on $\text{NO}_2$ and $\text{NH}_3$ Gas Sensitivity of Bottom-Gate Graphene FETs Prepared by ICP-CVD. <b>2012</b> , 33, 1084-1086       | 27  |
| 1491 | Properties of suspended graphene membranes. <b>2012</b> , 15, 238-245   | 84  |
| 1490 | Effects of substrate material on carbon films grown by laser molecular beam epitaxy. <b>2012</b> , 263, 362-366   | 3   |
| 1489 | Luminescence variation of organic Alq3 nanoparticles on surface of Au nanoparticles and graphene. <b>2012</b> , 162, 1852-1857  | 13  |
| 1488 | Large thermoelectric effect in graphene superlattices. <b>2012</b> , 46, 189-192  | 17  |
| 1487 | Efficient removal of herbicide 2,4-dichlorophenoxyacetic acid from water using Ag/reduced graphene oxide co-decorated TiO2 nanotube arrays. <b>2012</b> , 241-242, 323-30 | 105 |
| 1486 | Graphene-based multilayers: Critical evaluation of materials assembly techniques. <b>2012</b> , 7, 430-447  | 112 |
| 1485 | Efficiency enhancement of graphene/silicon-pillar-array solar cells by HNO3 and PEDOT-PSS. <b>2012</b> , 4, 2130-3  | 69  |

|      |  |     |
|------|--|-----|
| 1484 | Synthesis of conducting transparent few-layer graphene directly on glass at 450 °C. <b>2012</b> , 23, 265603   | 17  |
| 1483 | Ordered ZnO nanorods-based heterojunction light-emitting diodes with graphene current spreading layer. <b>2012</b> , 101, 121104   | 28  |
| 1482 | Quasiparticle band gaps of boron nitride nanoribbons. <b>2012</b> , 85,  | 10  |
| 1481 | Dielectric strength, optical absorption, and deep ultraviolet detectors of hexagonal boron nitride epilayers. <b>2012</b> , 101, 171112                                      | 95  |
| 1480 | Electrical characterization of graphene synthesized by chemical vapor deposition using Ni substrate. <b>2012</b> , 23, 015701  | 16  |
| 1479 | Large Ultrathin Anatase TiO <sub>2</sub> Nanosheets with Exposed {001} Facets on Graphene for Enhanced Visible Light Photocatalytic Activity. <b>2012</b> , 116, 19893-19901 | 305 |
| 1478 | In situ growth of FeNi alloy nanoflowers on reduced graphene oxide nanosheets and their magnetic properties. <b>2012</b> , 14, 1432-1438                                     | 30  |
| 1477 | Plasmonics of coupled graphene micro-structures. <b>2012</b> , 14, 125001  | 66  |
| 1476 | Sub-ppt gas detection with pristine graphene. <b>2012</b> , 101, 053119  | 132 |
| 1475 | Synergetic effect of Cu and graphene as cocatalyst on TiO <sub>2</sub> for enhanced photocatalytic hydrogen evolution from solar water splitting. <b>2012</b> , 22, 18542    | 164 |
| 1474 | A Communication Theoretical Modeling of Single-Layer Graphene Photodetectors and Efficient Multireceiver Diversity Combining. <b>2012</b> , 11, 601-610                      | 10  |
| 1473 | SOLUTION PROCESSED GRAPHENE THIN FILMS AND THEIR APPLICATIONS IN ORGANIC SOLAR CELLS. <b>2012</b> , 26, 1242004  | 7   |
| 1472 | Complete light absorption in graphene-metamaterial corrugated structures. <b>2012</b> , 86,  | 76  |
| 1471 | Spin thermopower and thermoconductance in a ferromagnetic graphene nanoribbon. <b>2012</b> , 24, 385302  | 15  |
| 1470 | Terahertz and infrared spectroscopy of gated large-area graphene. <b>2012</b> , 12, 3711-5   | 203 |
| 1469 | Macroscopic Single-Domain Graphene Growth on Polycrystalline Nickel Surface. <b>2012</b> , 5, 035501   | 18  |
| 1468 | Role of electronic excitations in magneto-Raman spectra of graphene. <b>2012</b> , 14, 105016  | 18  |
| 1467 | Model of an exotic chiral superconducting phase in a graphene bilayer. <b>2012</b> , 108, 147001   | 31  |

|      |   |     |
|------|---|-----|
| 1466 | Epitaxial growth of Estacked perfluoropentacene on graphene-coated quartz. <b>2012</b> , 6, 10874-83  | 96  |
| 1465 | Ultraviolet dielectric hyperlens with layered graphene and boron nitride. <b>2012</b> , 22, 15863   | 28  |
| 1464 | Resistive coupling of localized plasmon resonances in metallic nanostripes through a graphene layer. <b>2012</b> ,                                |     |
| 1463 | Two-dimensional crystals-based heterostructures: materials with tailored properties. <b>2012</b> , T146, 014006                                   | 226 |
| 1462 | Photothermal self-oscillation and laser cooling of graphene optomechanical systems. <b>2012</b> , 12, 4681-6                                      | 125 |
| 1461 | Optical conductivity of atomic hexagonal boron nitride layers. <b>2012</b> , 407, 4244-4250   | 9   |
| 1460 | Tunable photogalvanic effect on topological insulator surfaces via proximity interactions. <b>2012</b> , 86,                                      | 21  |
| 1459 | A perfect absorber made of a graphene micro-ribbon metamaterial. <b>2012</b> , 20, 28017-24   | 428 |
| 1458 | Effects of strain on Goos-Hänchen-like shifts of graphene. <b>2012</b> , 407, 4254-4257   | 7   |
| 1457 | Layer dependent mechanical responses of graphene composites to near-infrared light. <b>2012</b> , 100, 073108                                     | 46  |
| 1456 | Dipole-dipole interaction between a quantum dot and a graphene nanodisk. <b>2012</b> , 86,  | 74  |
| 1455 | Nanoscale electro-optic modulators based on graphene-slot waveguides. <b>2012</b> , 29, 1490  | 187 |
| 1454 | Growth of triangle-shape graphene on Cu(111) surface. <b>2012</b> , 100, 163106   | 35  |
| 1453 | Infrared absorbance of silicene and germanene. <b>2012</b> , 100, 261906  | 134 |
| 1452 | Facile photochemical synthesis of graphene-pt nanoparticle composite for counter electrode in dye sensitized solar cell. <b>2012</b> , 4, 3447-52 | 78  |
| 1451 | Graphene induced tunability of the surface plasmon resonance. <b>2012</b> , 100, 061116   | 84  |
| 1450 | Invisibility and cloaking based on scattering cancellation. <b>2012</b> , 24, OP281-304   | 140 |
| 1449 | Growth of Silver Film on Graphene Oxide Pattern. <b>2012</b> , 116, 17698-17704   | 6   |

|      |   |     |
|------|---|-----|
| 1448 | Homogeneous bilayer graphene film based flexible transparent conductor. <b>2012</b> , 4, 639-44   | 43  |
| 1447 | Direct measurement of adhesion energy of monolayer graphene as-grown on copper and its application to renewable transfer process. <b>2012</b> , 12, 1448-52       | 301 |
| 1446 | Graphene-based photodetector with two cavities. <b>2012</b> , 85,   | 125 |
| 1445 | Excitation of surface electromagnetic waves in a graphene-based Bragg grating. <b>2012</b> , 2, 737   | 85  |
| 1444 | Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters. <b>2012</b> , T149, 014069   | 17  |
| 1443 | Scanning tunneling microscopy study and nanomanipulation of graphene-coated water on mica. <b>2012</b> , 12, 2665-72  | 93  |
| 1442 | A hybridized graphene carrier highway for enhanced thermoelectric power generation. <b>2012</b> , 14, 13527-31  | 21  |
| 1441 | Nonlinear optical properties of graphene-based materials. <b>2012</b> , 57, 2971-2982   | 100 |
| 1440 | High-speed waveguide-coupled graphene-on-graphene optical modulators. <b>2012</b> , 100, 171107   | 133 |
| 1439 | ZnO nanorods-graphene hybrid structures for enhanced current spreading and light extraction in GaN-based light emitting diodes. <b>2012</b> , 100, 061107         | 31  |
| 1438 | Electrically tunable damping of plasmonic resonances with graphene. <b>2012</b> , 12, 5202-6  | 260 |
| 1437 | Evidence for extraction of photoexcited hot carriers from graphene. <b>2012</b> , 6, 7172-6   | 23  |
| 1436 | Interwall screening and excitons in double-wall carbon nanotubes. <b>2012</b> , 85,   | 15  |
| 1435 | Time-resolved ultrafast photocurrents and terahertz generation in freely suspended graphene. <b>2012</b> , 3, 646   | 126 |
| 1434 | Mechanical and environmental stability of polymer thin-film-coated graphene. <b>2012</b> , 6, 2096-103  | 57  |
| 1433 | Electrical and optical properties of electrospun TiO <sub>2</sub> -graphene composite nanofibers and its application as DSSC photo-anodes. <b>2012</b> , 2, 13032 | 78  |
| 1432 | Screening-engineered field-effect solar cells. <b>2012</b> , 12, 4300-4   | 44  |
| 1431 | Graphene for next-generation optical communication. <b>2012</b> ,   | 1   |

|      |  |      |
|------|--|------|
| 1430 | High open-circuit voltage of graphene-based photovoltaic cells modulated by layer-by-layer transfer. <b>2012</b> , 44, 744-748                           | 1    |
| 1429 | Chemical approaches toward graphene-based nanomaterials and their applications in energy-related areas. <b>2012</b> , 8, 630-46                          | 335  |
| 1428 | Transparent and conducting graphene-RNA-based nanocomposites. <b>2012</b> , 8, 699-706   | 22   |
| 1427 | Soluble reduced graphene oxide functionalized with conjugated polymer for heterojunction solar cells. <b>2012</b> , 50, 1663-1671                        | 17   |
| 1426 | Modification of graphene/graphene oxide with polymer brushes using controlled/living radical polymerization. <b>2012</b> , 50, 2981-2992                 | 82   |
| 1425 | High-efficiency and room-temperature reduction of graphene oxide: a facile green approach towards flexible graphene films. <b>2012</b> , 8, 1180-4, 1124 | 35   |
| 1424 | Nanocomposites of graphene oxide and upconversion rare-earth nanocrystals with superior optical limiting performance. <b>2012</b> , 8, 2271-6            | 75   |
| 1423 | Extraordinary physical properties of functionalized graphene. <b>2012</b> , 8, 2138-51   | 153  |
| 1422 | Microcavity-integrated graphene photodetector. <b>2012</b> , 12, 2773-7  | 623  |
| 1421 | Interface engineering catalytic graphene for smart colorimetric biosensing. <b>2012</b> , 6, 3142-51   | 226  |
| 1420 | Photoinduced band gap shift and deep levels in luminescent carbon nanotubes. <b>2012</b> , 6, 1702-14  | 16   |
| 1419 | Graphene-ferroelectric hybrid structure for flexible transparent electrodes. <b>2012</b> , 6, 3935-42  | 156  |
| 1418 | Study of electromagnetic enhancement for surface enhanced Raman spectroscopy of SiC graphene. <b>2012</b> , 100, 191601                                  | 18   |
| 1417 | Low-temperature, site selective graphitization of SiC via ion implantation and pulsed laser annealing. <b>2012</b> , 100, 193105                         | 18   |
| 1416 | Strong charge-transfer doping of 1 to 10 layer graphene by NO <sub>2</sub> . <b>2012</b> , 6, 1865-75  | 138  |
| 1415 | The shear mode of multilayer graphene. <b>2012</b> , 11, 294-300   | 482  |
| 1414 | Inkjet-printed graphene electronics. <b>2012</b> , 6, 2992-3006  | 864  |
| 1413 | Graphene-based composites. <b>2012</b> , 41, 666-86  | 3116 |



|      |   |      |
|------|---|------|
| 1412 | Graphene photonics, plasmonics, and broadband optoelectronic devices. <b>2012</b> , 6, 3677-94  | 1468 |
| 1411 | Angle-resolved Raman imaging of interlayer rotations and interactions in twisted bilayer graphene. <b>2012</b> , 12, 3162-7   | 260  |
| 1410 | Graphenes prepared by Staudenmaier, Hofmann and Hummers methods with consequent thermal exfoliation exhibit very different electrochemical properties. <b>2012</b> , 4, 3515-22 | 303  |
| 1409 | Magnetic graphene nanocomposites: electron conduction, giant magnetoresistance and tunable negative permittivity. <b>2012</b> , 22, 835-844                                     | 83   |
| 1408 | Graphene transistor as a probe for streaming potential. <b>2012</b> , 12, 2931-5  | 41   |
| 1407 | Graphene/organic nanocomposites. <b>2012</b> , 2, 64-98   | 507  |
| 1406 | Electron Hopping Through Single-to-Few-Layer Graphene Oxide Films. Side-Selective Photocatalytic Deposition of Metal Nanoparticles. <b>2012</b> , 3, 1453-8                     | 48   |
| 1405 | Fortification of CdSe quantum dots with graphene oxide. Excited state interactions and light energy conversion. <b>2012</b> , 134, 7109-16                                      | 279  |
| 1404 | Graphene oxide reduction by standard industrial reducing agent: thiourea dioxide. <b>2012</b> , 22, 11054   | 104  |
| 1403 | A comparison of graphene, superconductors and metals as conductors for metamaterials and plasmonics. <b>2012</b> , 6, 259-264   | 309  |
| 1402 | Direct nanoscale imaging of ballistic and diffusive thermal transport in graphene nanostructures. <b>2012</b> , 12, 2906-11   | 70   |
| 1401 | Exceptional high Seebeck coefficient and gas-flow-induced voltage in multilayer graphene. <b>2012</b> , 100, 183108   | 55   |
| 1400 | Novel highly conductive and transparent graphene-based conductors. <b>2012</b> , 24, 2844-9   | 248  |
| 1399 | Tunable infrared plasmonic devices using graphene/insulator stacks. <b>2012</b> , 7, 330-4  | 935  |
| 1398 | Structure-dependent Fano resonances in the infrared spectra of phonons in few-layer graphene. <b>2012</b> , 108, 156801   | 54   |
| 1397 | Determination of graphene work function and graphene-insulator-semiconductor band alignment by internal photoemission spectroscopy. <b>2012</b> , 101, 022105                   | 134  |
| 1396 | Large photocurrents in single layer graphene thin films: effects of diffusion and drift. <b>2012</b> , 23, 265203   | 16   |
| 1395 | Synthesis of monolayer hexagonal boron nitride on Cu foil using chemical vapor deposition. <b>2012</b> , 12, 161-6  | 902  |

|      |  |      |
|------|--|------|
| 1394 | Synthesis of highly confined surface plasmon modes with doped graphene sheets in the midinfrared and terahertz frequencies. <b>2012</b> , 85,                        | 237  |
| 1393 | Electron-Electron Interactions in Graphene: Current Status and Perspectives. <b>2012</b> , 84, 1067-1125   | 833  |
| 1392 | Plasmons and near-field amplification in double-layer graphene. <b>2012</b> , 85,  | 89   |
| 1391 | Promoting Effect of Graphene on Dye-Sensitized Solar Cells. <b>2012</b> , 51, 10613-10620  | 84   |
| 1390 | Fabrication of Graphene Nanomesh and Improved Chemical Enhancement for Raman Spectroscopy. <b>2012</b> , 116, 15741-15746  | 62   |
| 1389 | Graphene as a counter electrode material for dye-sensitized solar cells. <b>2012</b> , 5, 8182   | 354  |
| 1388 | Raman Imaging in Semiconductor Physics: Applications to Microelectronic Materials and Devices. <b>2012</b> , 39-83   | 4    |
| 1387 | Broadband graphene terahertz modulators enabled by intraband transitions. <b>2012</b> , 3, 780   | 715  |
| 1386 | Connecting dopant bond type with electronic structure in N-doped graphene. <b>2012</b> , 12, 4025-31   | 381  |
| 1385 | Giant optical response from graphene--plasmonic system. <b>2012</b> , 6, 6244-9  | 69   |
| 1384 | Novel Radiation-Induced Properties of Graphene and Related Materials. <b>2012</b> , 213, 1146-1163   | 63   |
| 1383 | Fabrication of transparent, tough, and conductive shape-memory polyurethane films by incorporating a small amount of high-quality graphene. <b>2012</b> , 33, 628-34 | 65   |
| 1382 | A local optical probe for measuring motion and stress in a nanoelectromechanical system. <b>2012</b> , 7, 151-5  | 49   |
| 1381 | Graphene oxide and its reduction: modeling and experimental progress. <b>2012</b> , 2, 2643  | 418  |
| 1380 | The Development of an Infrared Camera Using Graphene: Achieving Efficient High-Resolution Infrared Images.. <b>2012</b> , 6, 4-7                                     | 4    |
| 1379 | Control of thickness uniformity and grain size in graphene films for transparent conductive electrodes. <b>2012</b> , 23, 035603                                     | 90   |
| 1378 | An overview of the applications of graphene-based materials in supercapacitors. <b>2012</b> , 8, 1805-34   | 1082 |
| 1377 | Greener Electrochemical Synthesis of High Quality Graphene Nanosheets Directly from Pencil and its SPR Sensing Application. <b>2012</b> , 22, 2352-2362              | 116  |

|      |   |     |
|------|---|-----|
| 1376 | Robust Hollow Spheres Consisting of Alternating Titania Nanosheets and Graphene Nanosheets with High Photocatalytic Activity for CO <sub>2</sub> Conversion into Renewable Fuels. <b>2012</b> , 22, 1215-1221 | 339 |
| 1375 | Layer-Controlled and Wafer-Scale Synthesis of Uniform and High-Quality Graphene Films on a Polycrystalline Nickel Catalyst. <b>2012</b> , 22, 3153-3159   | 80  |
| 1374 | Heat Dissipation of Transparent Graphene Defoggers. <b>2012</b> , 22, 4819-4826   | 204 |
| 1373 | Graphene-based materials for energy conversion. <b>2012</b> , 24, 4203-10   | 265 |
| 1372 | Engineering the electronic structure of graphene. <b>2012</b> , 24, 4055-69   | 99  |
| 1371 | Binary and ternary atomic layers built from carbon, boron, and nitrogen. <b>2012</b> , 24, 4878-95  | 197 |
| 1370 | Facile Synthesis of Nitrogen-Doped Graphene via Pyrolysis of Graphene Oxide and Urea, and its Electrocatalytic Activity toward the Oxygen-Reduction Reaction. <b>2012</b> , 2, 884-888                        | 725 |
| 1369 | Graphene Oxide Nanoparticles as a Nonbleaching Optical Probe for Two-Photon Luminescence Imaging and Cell Therapy. <b>2012</b> , 124, 1866-1870   | 16  |
| 1368 | Industrial graphene metrology. <b>2012</b> , 4, 3807-19   | 19  |
| 1367 | Quantum-enhanced tunable second-order optical nonlinearity in bilayer graphene. <b>2012</b> , 12, 2032-6  | 96  |
| 1366 | Metal-Free Growth of Nanographene on Silicon Oxides for Transparent Conducting Applications. <b>2012</b> , 22, 2123-2128  | 142 |
| 1365 | Chemistry, physics and biology of graphene-based nanomaterials: new horizons for sensing, imaging and medicine. <b>2012</b> , 22, 14313   | 105 |
| 1364 | Graphene and its derivatives: switching ON and OFF. <b>2012</b> , 41, 4688-707  | 219 |
| 1363 | Near room-temperature synthesis of transfer-free graphene films. <b>2012</b> , 3, 645   | 179 |
| 1362 | Repeated growth and bubbling transfer of graphene with millimetre-size single-crystal grains using platinum. <b>2012</b> , 3, 699   | 884 |
| 1361 | Synthesis of monolithic graphene-graphite integrated electronics. <b>2011</b> , 11, 120-5   | 192 |
| 1360 | Molecular n-doping of chemical vapor deposition grown graphene. <b>2012</b> , 22, 15168   | 53  |
| 1359 | Ultrafast reduction of graphene oxide with Zn powder in neutral and alkaline solutions at room temperature promoted by the formation of metal complexes. <b>2012</b> , 22, 9109                               | 51  |

|      |   |     |
|------|---|-----|
| 1358 | Structural and electronic decoupling of C from epitaxial graphene on SiC. <b>2012</b> , 12, 3018-24   | 83  |
| 1357 | Magneto-optical Franz-Keldysh effect in graphene. <b>2012</b> , 85,   | 5   |
| 1356 | Excitation of edge magnetoplasmons in semi-infinite graphene sheets: Temperature effects. <b>2012</b> , 85,   | 22  |
| 1355 | Photonic Crystal Enhanced Absorbance of CVD Graphene. <b>2012</b> , 195-202   | 1   |
| 1354 | Terahertz Dynamics of Quantum-Confined Electrons in Carbon Nanomaterials. <b>2012</b> , 33, 846-860   | 19  |
| 1353 | Effect of nonhomogenous dielectric background on the plasmon modes in graphene double-layer structures at finite temperatures. <b>2012</b> , 85,  | 59  |
| 1352 | The effect of spin-orbit interaction on optical conductivity in graphene. <b>2012</b> , 24, 035303  | 9   |
| 1351 | Terahertz Properties of Graphene. <b>2012</b> , 33, 797-815   | 59  |
| 1350 | Universality of Conductivity in Interacting Graphene. <b>2012</b> , 311, 317-355  | 21  |
| 1349 | Femtosecond energy relaxation in suspended graphene: phonon-assisted spreading of quasiparticle distribution. <b>2012</b> , 107, 131-136  | 10  |
| 1348 | Direct formation of graphene layers on top of SiC during the carburization of Si substrate. <b>2012</b> , 12, 1088-1091   | 7   |
| 1347 | Growth of graphene on Cu by plasma enhanced chemical vapor deposition. <b>2012</b> , 50, 869-874  | 142 |
| 1346 | Simple Förster resonance energy transfer evidence for the ultrahigh quantum dot quenching efficiency by graphene oxide compared to other carbon structures. <b>2012</b> , 50, 2987-2993 | 92  |
| 1345 | Chemical-free synthesis of graphene-carbon nanotube hybrid materials for reversible lithium storage in lithium-ion batteries. <b>2012</b> , 50, 4557-4565                               | 93  |
| 1344 | Preparation and characterization of tin oxide, SnO <sub>2</sub> nanoparticles decorated graphene. <b>2012</b> , 38, 4209-4216   | 38  |
| 1343 | TiO <sub>2</sub> -graphene nanocomposites for photocatalytic hydrogen production from splitting water. <b>2012</b> , 37, 2224-2230  | 182 |
| 1342 | Lattice quantum electrodynamics for graphene. <b>2012</b> , 327, 461-511  | 29  |
| 1341 | Structural evolution and growth mechanism of graphene domains on copper foil by ambient pressure chemical vapor deposition. <b>2012</b> , 536, 123-128                                  | 23  |

|      |  |     |
|------|--|-----|
| 1340 | Surfactants used for dispersion of graphenes exhibit strong influence on electrochemical impedance spectroscopic response. <b>2012</b> , 16, 19-21 | 15  |
| 1339 | Differentiation between graphene oxide and reduced graphene by electrochemical impedance spectroscopy (EIS). <b>2012</b> , 20, 63-66               | 135 |
| 1338 | Graphene: synthesis and applications. <b>2012</b> , 15, 86-97  | 663 |
| 1337 | Fluorescence determination based on graphene oxide. <b>2012</b> , 76, 247-249  | 10  |
| 1336 | Energetic graphene oxide: Challenges and opportunities. <b>2012</b> , 7, 137-152   | 235 |
| 1335 | Experimental evidence for Efros-Bhiklovskii variable range hopping in hydrogenated graphene. <b>2012</b> , 152, 905-908                            | 40  |
| 1334 | Theory of the nonlinear optical frequency mixing effect in graphene. <b>2012</b> , 44, 924-927   | 49  |
| 1333 | A Tutorial on Nonlinear Photonic Applications of Carbon Nanotube and Graphene. <b>2012</b> , 30, 427-447   | 193 |
| 1332 | Graphene production by etching natural graphite single crystals in a plasma-chemical reactor based on beam-plasma discharge. <b>2012</b> , 57, 1-3 | 7   |
| 1331 | Build-up processes of an optical cavity enclosing an absorbent thin film: computational study by the CIP method. <b>2012</b> , 66, 1               | 2   |
| 1330 | Autonomously Controlled Homogenous Growth of Wafer-Sized High-Quality Graphene via a Smart Janus Substrate. <b>2012</b> , 22, 1033-1039            | 39  |
| 1329 | Graphene oxide nanoparticles as a nonbleaching optical probe for two-photon luminescence imaging and cell therapy. <b>2012</b> , 51, 1830-4        | 173 |
| 1328 | Recent progress and challenges in graphene nanoribbon synthesis. <b>2013</b> , 14, 47-54   | 180 |
| 1327 | Physical Properties of Graphene Nanoribbons: Insights from First-Principles Studies. <b>2013</b> , 51-77   | 1   |
| 1326 | Solar energy harvesting with the application of nanotechnology. <b>2013</b> , 26, 837-852  | 137 |
| 1325 | Direct synthesis of graphene on SiO <sub>2</sub> substrates by chemical vapor deposition. <b>2013</b> , 15, 1840                                   | 60  |
| 1324 | Investigation of non-segregation graphene growth on Ni via isotope-labeled alcohol catalytic chemical vapor deposition. <b>2013</b> , 5, 6530-7    | 16  |
| 1323 | Plasmon-enhanced photothermoelectric conversion in chemical vapor deposited graphene p-n junctions. <b>2013</b> , 135, 10926-9                     | 52  |

|      |  |     |
|------|--|-----|
| 1322 | Probing voltage drop variations in graphene with photoelectron spectroscopy. <b>2013</b> , 85, 4172-7  | 13  |
| 1321 | Self-Initiated Free Radical Grafting of Styrene Homo- and Copolymers onto Functionalized Graphene. <b>2013</b> , 46, 5488-5496   | 66  |
| 1320 | Probing into the metal-graphene interface by electron transport measurements. <b>2013</b> , 102, 033107  | 11  |
| 1319 | Observation of intra- and inter-band transitions in the transient optical response of graphene. <b>2013</b> , 15, 015009   | 66  |
| 1318 | TiO <sub>2</sub> -graphene composites with exposed {001} facets produced by a one-pot solvothermal approach for high performance photocatalyst. <b>2013</b> , 15, 12963-70 | 74  |
| 1317 | Role of dopants in long-range charge carrier transport for p-type and n-type graphene transparent conducting thin films. <b>2013</b> , 7, 7251-61                          | 69  |
| 1316 | Designed CVD growth of graphene via process engineering. <b>2013</b> , 46, 2263-74   | 152 |
| 1315 | Graphene in high magnetic fields. <b>2013</b> , 14, 78-93  | 15  |
| 1314 | WO <sub>3</sub> -reduced graphene oxide composites with enhanced charge transfer for photoelectrochemical conversion. <b>2013</b> , 15, 16138-42                           | 41  |
| 1313 | Graphene geometric diodes for terahertz rectennas. <b>2013</b> , 46, 185101  | 66  |
| 1312 | Reduced graphene oxide-based photocatalysts containing Ag nanoparticles on a TiO <sub>2</sub> nanotube array. <b>2013</b> , 48, 6203-6211                                  | 25  |
| 1311 | Raman scattering efficiency of graphene. <b>2013</b> , 87,   | 71  |
| 1310 | Optical Third-Harmonic Generation in Graphene. <b>2013</b> , 3,  | 133 |
| 1309 | Adhesion of graphene sheet on nano-patterned substrates with nano-pillar array. <b>2013</b> , 113, 244303  | 13  |
| 1308 | Graphene-Si Schottky IR Detector. <b>2013</b> , 49, 589-594  | 89  |
| 1307 | Atomic structure and electronic properties of folded graphene nanoribbons: A first-principles study. <b>2013</b> , 113, 173506   | 13  |
| 1306 | Direct measurement of Dirac point energy at the graphene/oxide interface. <b>2013</b> , 13, 131-6  | 56  |
| 1305 | Self-assembly based plasmonic arrays tuned by atomic layer deposition for extreme visible light absorption. <b>2013</b> , 13, 3352-7                                       | 104 |

|      |   |     |
|------|---|-----|
| 1304 | Manipulating light absorption of graphene using plasmonic nanoparticles. <b>2013</b> , 5, 7785-9  | 65  |
| 1303 | Ultra-fast synthesis of graphene by melt spinning. <b>2013</b> , 61, 299-304  | 2   |
| 1302 | Platinum-graphene counter electrodes for dye-sensitized solar cells. <b>2013</b> , 114, 014503  | 22  |
| 1301 | Electronic response of graphene to an ultrashort intense terahertz radiation pulse. <b>2013</b> , 15, 055021  | 34  |
| 1300 | Sensitivity improved surface plasmon resonance sensor based on graphene and gold nanorods. <b>2013</b> ,  |     |
| 1299 | Band Gaps of a Two-Dimensional Periodic Graphenelike Structure. <b>2013</b> , 135,  | 4   |
| 1298 | Plasmon anomaly in the dynamical optical conductivity of graphene. <b>2013</b> , 88,  | 12  |
| 1297 | Flexible Supercapacitors [Development of Bendable Carbon Architectures. <b>2013</b> , 101-141   | 4   |
| 1296 | Synthesis of hexagonal graphene on polycrystalline Cu foil from solid camphor by atmospheric pressure chemical vapor deposition. <b>2013</b> , 48, 7036-7041                              | 13  |
| 1295 | Transfer matrix method for optics in graphene layers. <b>2013</b> , 25, 215301  | 227 |
| 1294 | Third harmonic generation in graphene and few-layer graphite films. <b>2013</b> , 87,   | 202 |
| 1293 | Synthesis of Fe <sub>3</sub> O <sub>4</sub> /graphene/TiO <sub>2</sub> composites for the highly selective enrichment of phosphopeptides from biological samples. <b>2013</b> , 5, 7330-4 | 68  |
| 1292 | Influence of graphene synthesizing techniques on the photocatalytic performance of graphene-TiO <sub>2</sub> nanocomposites. <b>2013</b> , 15, 15528-37                                   | 37  |
| 1291 | Synthesis and photocatalytic property of Fe <sub>3</sub> O <sub>4</sub> @TiO <sub>2</sub> core/shell nanoparticles supported by reduced graphene oxide sheets. <b>2013</b> , 578, 501-506 | 57  |
| 1290 | Conductive thin films of pristine graphene by solvent interface trapping. <b>2013</b> , 7, 7062-6   | 155 |
| 1289 | Phonons in twisted bilayer graphene. <b>2013</b> , 88,  | 119 |
| 1288 | Highly stable and flexible silver nanowire-graphene hybrid transparent conducting electrodes for emerging optoelectronic devices. <b>2013</b> , 5, 7750-5                                 | 179 |
| 1287 | Electron spin relaxation in graphene nanoribbon quantum dots. <b>2013</b> , 87,   | 17  |

|      |  |     |
|------|--|-----|
| 1286 | Low temperature growth of complete monolayer graphene films on Ni-doped copper and gold catalysts by a self-limiting surface reaction. <b>2013</b> , 64, 315-323 | 29  |
| 1285 | New Materials for Transparent Electrodes. <b>2013</b> , 139-174  |     |
| 1284 | Electrical conductivities of carbon powder nanofillers and their latex-based polymer composites. <b>2013</b> , 53, 145-151                                       | 34  |
| 1283 | Fabrication of Fe <sub>2</sub> O <sub>3</sub> nanorod/RGO composite: a novel hybrid photocatalyst for phenol degradation. <b>2013</b> , 5, 9101-10               | 262 |
| 1282 | Modulation of the optical transmittance in multilayer graphene by an electrical signal. <b>2013</b> , 103, 083116  | 10  |
| 1281 | Clean transfer of graphene on Pt foils mediated by a carbon monoxide intercalation process. <b>2013</b> , 6, 671-678   | 33  |
| 1280 | Market Uptake Potential of Graphene as a Disruptive Material. <b>2013</b> , 101, 1793-1800   | 12  |
| 1279 | Key issues and recent progress of high efficient organic light-emitting diodes. <b>2013</b> , 17, 69-104   | 68  |
| 1278 | Interface engineering of graphene for universal applications as both anode and cathode in organic photovoltaics. <b>2013</b> , 3, 1581                           | 73  |
| 1277 | Graphene transfer with reduced residue. <b>2013</b> , 377, 1455-1458   | 121 |
| 1276 | Biologically inspired graphene-chlorophyll phototransistors with high gain. <b>2013</b> , 63, 23-29  | 83  |
| 1275 | Advances in semiconductor nanowire growth on graphene. <b>2013</b> , 7, 713-726  | 47  |
| 1274 | 3D Honeycomb-Like Structured Graphene and Its High Efficiency as a Counter-Electrode Catalyst for Dye-Sensitized Solar Cells. <b>2013</b> , 125, 9380-9384       | 67  |
| 1273 | Strength and fracture behavior of graphene grain boundaries: effects of temperature, inflection, and symmetry from molecular dynamics. <b>2013</b> , 15, 11794-9 | 33  |
| 1272 | Relationship between electrical and thermal conductivity in graphene-based transparent and conducting thin films. <b>2013</b> , 61, 595-601                      | 11  |
| 1271 | From graphite to graphene: direct liquid-phase exfoliation of graphite to produce single- and few-layered pristine graphene. <b>2013</b> , 1, 10592              | 222 |
| 1270 | 3D honeycomb-like structured graphene and its high efficiency as a counter-electrode catalyst for dye-sensitized solar cells. <b>2013</b> , 52, 9210-4           | 308 |
| 1269 | Express optical analysis of epitaxial graphene on SiC: impact of morphology on quantum transport. <b>2013</b> , 13, 4217-23                                      | 44  |



|      |  |     |
|------|--|-----|
| 1268 | Flexible and transparent MoS <sub>2</sub> field-effect transistors on hexagonal boron nitride-graphene heterostructures. <b>2013</b> , 7, 7931-6   | 800 |
| 1267 | Control of density and LSPR of Au nanoparticles on graphene. <b>2013</b> , 24, 275702  | 32  |
| 1266 | Band gap and correlated phenomena in bilayer and trilayer graphene. <b>2013</b> ,  | 3   |
| 1265 | Polyimide nanocomposites based on functionalized graphene sheets: Morphologies, thermal properties, and electrical and thermal conductivities. <b>2013</b> , 24, 6-14  | 29  |
| 1264 | Magneto-optics of monolayer and bilayer graphene. <b>2013</b> , 97, 429-438  | 16  |
| 1263 | Tunable hybrid surface waves supported by a graphene layer. <b>2013</b> , 97, 249-252  | 32  |
| 1262 | Metal free sensitizer and catalyst for dye sensitized solar cells. <b>2013</b> , 6, 3439   | 326 |
| 1261 | Tailoring the electrical properties of graphene layers by molecular doping. <b>2013</b> , 5, 5276-81   | 26  |
| 1260 | Fe <sub>2.25</sub> W <sub>0.75</sub> O <sub>4</sub> /reduced graphene oxide nanocomposites for novel bifunctional photocatalyst: One-pot synthesis, magnetically recyclable and enhanced photocatalytic property. <b>2013</b> , 205, 171-176 | 15  |
| 1259 | Molecular vibrational spectroscopy characterization of epoxy graphene oxide from density functional calculations. <b>2013</b> , 19, 1429-34  | 6   |
| 1258 | Giant optical limiting effect in Ormosil gel glasses doped with graphene oxide materials. <b>2013</b> , 1, 6759  | 68  |
| 1257 | Graphene for energy solutions and its industrialization. <b>2013</b> , 5, 10108-26   | 71  |
| 1256 | Experimental evidence for direct insulator-quantum Hall transition in multi-layer graphene. <b>2013</b> , 8, 214   | 9   |
| 1255 | Field emission from vertical graphene sheets formed by screen-printing technique. <b>2013</b> , 94, 48-52  | 38  |
| 1254 | Synthesis and properties of an atomically thin carbon nanosheet similar to graphene and its promising use as an organic thin film transistor. <b>2013</b> , 55, 299-304  | 34  |
| 1253 | Growth of graphite film on copper foil by plasma enhanced chemical vapor depositon. <b>2013</b> ,  |     |
| 1252 | Scaling laws for van der Waals interactions in nanostructured materials. <b>2013</b> , 4, 2341   | 218 |
| 1251 | Universal infrared absorbance of two-dimensional honeycomb group-IV crystals. <b>2013</b> , 87,  | 122 |

|      |  |      |
|------|--|------|
| 1250 | Photoactivity enhancement of the Cd <sub>x</sub> Zn <sub>1-x</sub> S nanoparticles by immobilizing on the graphene under visible light irradiation. <b>2013</b> , 282, 930-936 | 26   |
| 1249 | Improving the binding characteristics of tripodal compounds on single layer graphene. <b>2013</b> , 7, 7193-9  | 31   |
| 1248 | Nonlinear switching with a graphene coupler. <b>2013</b> , 88,   | 67   |
| 1247 | Helical networks in twisted bilayer graphene under interlayer bias. <b>2013</b> , 88,  | 82   |
| 1246 | Selective photoredox using graphene-based composite photocatalysts. <b>2013</b> , 15, 19102-18   | 273  |
| 1245 | Snapshots of non-equilibrium Dirac carrier distributions in graphene. <b>2013</b> , 12, 1119-24  | 324  |
| 1244 | Inherently electroactive graphene oxide nanoplatelets as labels for specific protein-target recognition. <b>2013</b> , 5, 7844-8   | 29   |
| 1243 | Ab initio study of electronic and optical behavior of two-dimensional silicon carbide. <b>2013</b> , 1, 2131   | 111  |
| 1242 | Visible Diffraction from Graphene and Its Application in Holograms. <b>2013</b> , 1, 869-874   | 15   |
| 1241 | Graphene-MoS <sub>2</sub> hybrid structures for multifunctional photoresponsive memory devices. <b>2013</b> , 8, 826-30  | 1065 |
| 1240 | Boron and nitrogen co-doping of diamond-like carbon film for transparent conductive films. <b>2013</b> , 284, 53-58  | 12   |
| 1239 | Quantum capacitance measurements of electron-hole asymmetry and next-nearest-neighbor hopping in graphene. <b>2013</b> , 88,   | 66   |
| 1238 | Highly efficient gate-tunable photocurrent generation in vertical heterostructures of layered materials. <b>2013</b> , 8, 952-8  | 866  |
| 1237 | Properties and applications of chemically functionalized graphene. <b>2013</b> , 25, 423201  | 75   |
| 1236 | Chemically engineered graphene-based 2D organic molecular magnet. <b>2013</b> , 7, 10011-22  | 43   |
| 1235 | Nonlinear reshaping of terahertz pulses with graphene metamaterials. <b>2013</b> , 98, 503-506   | 5    |
| 1234 | Optical properties of functionalized graphene. <b>2013</b> , 88,   | 17   |
| 1233 | A nitrogen-doped graphene film prepared by chemical vapor deposition of a methanol mist containing methylated melamine resin. <b>2013</b> , 113, 645-650                       | 6    |

|      |   |     |
|------|---|-----|
| 1232 | Graphene applications in electronic and optoelectronic devices and circuits. <b>2013</b> , 22, 098106   | 50  |
| 1231 | Efficient heat dissipation of photonic crystal microcavity by monolayer graphene. <b>2013</b> , 7, 10818-24   | 22  |
| 1230 | Massive Dirac quasiparticles in the optical absorbance of graphene, silicene, germanene, and tinene. <b>2013</b> , 25, 395305   | 134 |
| 1229 | Characteristics of a pressure sensitive touch sensor using a piezoelectric PVDF-TrFE/MoS2 stack. <b>2013</b> , 24, 475501   | 34  |
| 1228 | Cavity-enhanced absorption and Fano resonances in graphene nanoribbons. <b>2013</b> , 88,   | 8   |
| 1227 | Low-frequency optical conductivity in graphene and in other scale-invariant two-band systems. <b>2013</b> , 87,   | 43  |
| 1226 | Unusual reflection of electromagnetic radiation from a stack of graphene layers at oblique incidence. <b>2013</b> , 15, 114004  | 56  |
| 1225 | Quantum resistance metrology using graphene. <b>2013</b> , 76, 104501   | 57  |
| 1224 | UV-irradiation induced defect formation on graphene on metals. <b>2013</b> , 587, 56-60   | 16  |
| 1223 | Quantum efficiency and capture cross section of first and second excitonic transitions of single-walled carbon nanotubes measured through photoconductivity. <b>2013</b> , 13, 3531-8 | 33  |
| 1222 | Photoexcitation of graphene with twisted light. <b>2013</b> , 86, 1   | 14  |
| 1221 | The effect of copper pre-cleaning on graphene synthesis. <b>2013</b> , 24, 365602   | 102 |
| 1220 | Evidence for Nonradiative Energy Transfer in Graphene-Oxide-Based Hybrid Structures. <b>2013</b> , 117, 25298-25304   | 47  |
| 1219 | Klein tunneling and cone transport in AA-stacked bilayer graphene. <b>2013</b> , 88,  | 24  |
| 1218 | Direct growth of graphene film on germanium substrate. <b>2013</b> , 3, 2465  | 157 |
| 1217 | Strong many-body effects in silicene-based structures. <b>2013</b> , 88,  | 57  |
| 1216 | Optical diode action from axially asymmetric nonlinearity in an all-carbon solid-state device. <b>2013</b> , 13, 5771-6   | 55  |
| 1215 | Application of graphene-based nanostructures in dye-sensitized solar cells. <b>2013</b> , 250, 2643-2648  | 24  |

|      |  |     |
|------|--|-----|
| 1214 | Nonlinear theory of graphene interaction with strong laser radiation beyond the Dirac cone approximation: Coherent control of quantum states in nano-optics. <b>2013</b> , 88,   | 17  |
| 1213 | Multiphoton resonant excitations and high-harmonic generation in bilayer graphene. <b>2013</b> , 88,   | 34  |
| 1212 | Single-photon nonlinear optics with graphene plasmons. <b>2013</b> , 111, 247401   | 140 |
| 1211 | Plasmon modes and screening in double metallic armchair graphene nanoribbons. <b>2013</b> , 88,  | 12  |
| 1210 | Introduction to graphene electronics $\square$ a new era of digital transistors and devices. <b>2013</b> , 54, 233-251   | 42  |
| 1209 | Ultrafast zero balance of the oscillator-strength sum rule in graphene. <b>2013</b> , 3, 2663  | 7   |
| 1208 | Development of an ultra-thin film comprised of a graphene membrane and carbon nanotube vein support. <b>2013</b> , 4, 2920   | 64  |
| 1207 | Enhanced photocatalytic activity of TiO <sub>2</sub> /EC hybrid aerogels for methylene blue degradation. <b>2013</b> , 3, 3018   | 87  |
| 1206 | Surface and Thermal Effects on the Pull-In Behavior of Doubly-Clamped Graphene Nanoribbons Under Electrostatic and Casimir Loads. <b>2013</b> , 80,  | 14  |
| 1205 | Optical absorption in twisted bilayer graphene. <b>2013</b> , 87,  | 240 |
| 1204 | Bioimpact of Carbon Nanomaterials. <b>2013</b> , 193-271   | 4   |
| 1203 | Enhancement of power conversion efficiency of dye-sensitized solar cells by co-sensitization of zinc-porphyrin and thiocyanate-free ruthenium(II)-terpyridine dyes and graphene modified TiO <sub>2</sub> photoanode. <b>2013</b> , 3, 22412 | 58  |
| 1202 | Graphene oxide gate dielectric for graphene-based monolithic field effect transistors. <b>2013</b> , 102, 133108   | 37  |
| 1201 | Stepwise Reduction of Immobilized Monolayer Graphene Oxides. <b>2013</b> , 25, 4839-4848   | 12  |
| 1200 | Multilayer graphene for Q-switched mode-locking operation in an erbium-doped fiber laser. <b>2013</b> , 300, 17-21   | 17  |
| 1199 | Influence of gas composition on the formation of graphene domain synthesized from camphor. <b>2013</b> , 93, 258-262   | 30  |
| 1198 | Exceeding the limit of plasmonic light trapping in textured screen-printed solar cells using Al nanoparticles and wrinkle-like graphene sheets. <b>2013</b> , 2, e92-e92   | 183 |
| 1197 | Fabrication of graphene films with high transparent conducting characteristics. <b>2013</b> , 8, 440   | 20  |

|      |   |     |
|------|---|-----|
| 1196 | Polarization dependence of the photocurrent due to an anisotropic electron-photon interaction in Pd-graphene-Pd devices. <b>2013</b> , 63, 1019-1022                                      | 1   |
| 1195 | Physical ambiguity of the notion of the solubility limit by the example of its determination using the formation of graphene on the surface in the Re-C system. <b>2013</b> , 98, 335-338 | 2   |
| 1194 | Graphene [Properties and Characterization. <b>2013</b> , 39-82  | 5   |
| 1193 | Chip-integrated ultrafast graphene photodetector with high responsivity. <b>2013</b> , 7, 883-887   | 768 |
| 1192 | Isolation of high quality graphene from Ru by solution phase intercalation. <b>2013</b> , 103, 121602   | 19  |
| 1191 | Graphene/poly(3,4-ethylenedioxythiophene) hydrogel with excellent mechanical performance and high conductivity. <b>2013</b> , 59, 495-502   | 103 |
| 1190 | An overview of the engineered graphene nanostructures and nanocomposites. <b>2013</b> , 3, 22790  | 167 |
| 1189 | High-responsivity graphene/silicon-heterostructure waveguide photodetectors. <b>2013</b> , 7, 888-891   | 584 |
| 1188 | Graphene-based nanocomposites: preparation, functionalization, and energy and environmental applications. <b>2013</b> , 6, 3483   | 422 |
| 1187 | Enhancing the absorption of graphene in the terahertz range. <b>2013</b> , 101, 58002   | 42  |
| 1186 | Formation of uniformly sized gold nanoparticles over graphene by MeV electron beam irradiation for transparent conducting films. <b>2013</b> , 102, 223116                                | 10  |
| 1185 | Co-existing heat currents in opposite directions in graphene nanoribbons. <b>2013</b> , 377, 2970-2978  | 26  |
| 1184 | Graphene incorporated nanocrystalline TiO <sub>2</sub> films for the photocathodic protection of 304 stainless steel. <b>2013</b> , 283, 498-504  | 32  |
| 1183 | Rapid large-area multiphoton microscopy for characterization of graphene. <b>2013</b> , 7, 8441-6   | 69  |
| 1182 | The effect of torsional deformation on thermal conductivity of mono-, bi- and trilayer graphene nanoribbon. <b>2013</b> , 173, 1-4  | 8   |
| 1181 | Graphene: Synthesis, Transfer, and Characterization for Dye-Sensitized Solar Cells Applications. <b>2013</b> , 52, 14160-14168  | 30  |
| 1180 | Surface plasmon polaritons on soft-boundary graphene nanoribbons and their application in switching/demultiplexing. <b>2013</b> , 103, 133104   | 50  |
| 1179 | Photocatalytic hydrogen evolution on graphene quantum dots anchored TiO <sub>2</sub> nanotubes-array. <b>2013</b> , 38, 12266-12272   | 46  |

|      |   |    |
|------|---|----|
| 1178 | High-field terahertz response of graphene. <b>2013</b> , 15, 085019   | 56 |
| 1177 | Oligothiophenes on CVD graphene grown on multi-crystalline copper foil: supramolecular assembly and impact of morphology. <b>2013</b> , 49, 10317-9                     | 17 |
| 1176 | Direct measurement of the absolute absorption spectrum of individual semiconducting single-wall carbon nanotubes. <b>2013</b> , 4, 2542                                 | 84 |
| 1175 | Optically active heterostructures of graphene and ultrathin MoS <sub>2</sub> . <b>2013</b> , 175-176, 35-42   | 35 |
| 1174 | Optoelectronic properties of graphene thin films deposited by a Langmuir-Blodgett assembly. <b>2013</b> , 5, 12365-74   | 37 |
| 1173 | All carbon-based photodetectors: an eminent integration of graphite quantum dots and two dimensional graphene. <b>2013</b> , 3, 2694                                    | 78 |
| 1172 | The gain enhancement effect of surface plasmon polaritons on terahertz stimulated emission in optically pumped monolayer graphene. <b>2013</b> , 15, 075003             | 76 |
| 1171 | Atomically thin two-dimensional materials for functional electrodes of electrochemical devices. <b>2013</b> , 19, 825-865   | 30 |
| 1170 | Intrinsic photocurrent characteristics of graphene photodetectors passivated with Al <sub>2</sub> O <sub>3</sub> . <b>2013</b> , 21, 23391-400                          | 25 |
| 1169 | Improving chemical vapor deposition graphene conductivity using molybdenum trioxide: An in-situ field effect transistor study. <b>2013</b> , 103, 263117                | 25 |
| 1168 | Computational identification of single-layer CdO for electronic and optical applications. <b>2013</b> , 103, 212102   | 43 |
| 1167 | Tilt angle change of nematic liquid crystal as a function of the number of graphite layers. <b>2013</b> , 40, 216-220   | 6  |
| 1166 | Rapidly characterize structural qualities of large-area graphene by optical anisotropy. <b>2013</b> ,   |    |
| 1165 | Interaction of Cy3 dye with CCG and its application for BSA detection. <b>2013</b> , 1, 693-697   | 16 |
| 1164 | A trigonal planar network in hydrogenated epitaxial graphene: a ferromagnetic semiconductor. <b>2013</b> , 1, 2696  | 5  |
| 1163 | An insight into the effect of nitrogen doping on the performance of a reduced graphene oxide counter electrode for dye-sensitized solar cells. <b>2013</b> , 3, 9005    | 18 |
| 1162 | Graphene mobility enhancement by organosilane interface engineering. <b>2013</b> , 102, 183107  | 12 |
| 1161 | One-pot solvothermal synthesis of ZnSe <sub>x</sub> N <sub>2</sub> H <sub>4</sub> /GS and ZnSe/N-GS and enhanced visible-light photocatalysis. <b>2013</b> , 5, 8414-22 | 32 |

|      |   |      |
|------|---|------|
| 1160 | Wafer-scale synthesis and transfer of monolayer graphene. <b>2013,</b>  | 1    |
| 1159 | A high-quality, monolayer graphene absorber for a 1.06 THz-switched mode-locking Nd:YVO <sub>4</sub> laser. <b>2013,</b> 23, 045807   | 5    |
| 1158 | Chiral anomaly and strength of the electron-electron interaction in graphene. <b>2013,</b> 110, 066602  | 26   |
| 1157 | A bottom-up engineered broadband optical nanoabsorber for radiometry and energy and harnessing applications. <b>2013,</b>   |      |
| 1156 | Effects of optical and surface polar phonons on the optical conductivity of doped graphene. <b>2013,</b> 87,  | 38   |
| 1155 | Using optical anisotropy as a quality factor to rapidly characterize structural qualities of large-area graphene films. <b>2013,</b> 85, 1605-14  | 8    |
| 1154 | Recent advances in the development of graphene-based surface plasmon resonance (SPR) interfaces. <b>2013,</b> 405, 1435-43  | 159  |
| 1153 | Applications of Graphene. <b>2013,</b> 333-437  | 6    |
| 1152 | Plasma oxidation of thermally grown graphenes and their characterization. <b>2013,</b> 87, 200-204  | 6    |
| 1151 | The transformation of a gold film on few-layer graphene to produce either hexagonal or triangular nanoparticles during annealing. <b>2013,</b> 52, 379-387  | 30   |
| 1150 | Ultra-high optical absorption efficiency from the ultraviolet to the infrared using multi-walled carbon nanotube ensembles. <b>2013,</b> 9, 1058-65   | 37   |
| 1149 | Selective ion sensors based on ionophore-modified graphene field-effect transistors. <b>2013,</b> 187, 45-49  | 59   |
| 1148 | Ab initio optical study of graphene on hexagonal boron nitride and fluorographene substrates. <b>2013,</b> 1, 1618  | 35   |
| 1147 | A study of the electrical properties of graphene-incorporated direct-patternable ZnO thin films. <b>2013,</b> 529, 234-237  | 8    |
| 1146 | Frame assisted H <sub>2</sub> O electrolysis induced H <sub>2</sub> bubbling transfer of large area graphene grown by chemical vapor deposition on Cu. <b>2013,</b> 102, 022101   | 91   |
| 1145 | Zero-valent iron/iron oxide-oxyhydroxide/graphene as a magnetic sorbent for the enrichment of polychlorinated biphenyls, polyaromatic hydrocarbons and phthalates prior to gas chromatography-mass spectrometry. <b>2013,</b> 1271, 1-9 | 72   |
| 1144 | Tuning the p-type conductivity of ZnSe nanowires via silver doping for rectifying and photovoltaic device applications. <b>2013,</b> 1, 1148-1154   | 25   |
| 1143 | Vertical field-effect transistor based on graphene-WS <sub>2</sub> heterostructures for flexible and transparent electronics. <b>2013,</b> 8, 100-3   | 1342 |

|      |  |      |
|------|--|------|
| 1142 | Semiconducting graphene: converting graphene from semimetal to semiconductor. <b>2013</b> , 5, 1353-68   | 122  |
| 1141 | Graphene-based transparent strain sensor. <b>2013</b> , 51, 236-242  | 595  |
| 1140 | 3D carbon based nanostructures for advanced supercapacitors. <b>2013</b> , 6, 41-53  | 1255 |
| 1139 | Progress, challenge and perspective of heterogeneous photocatalysts. <b>2013</b> , 42, 2568-80   | 1056 |
| 1138 | Electrolyte-induced precipitation of graphene oxide in its aqueous solution. <b>2013</b> , 391, 21-7   | 47   |
| 1137 | Carbon nanomaterials for electronics, optoelectronics, photovoltaics, and sensing. <b>2013</b> , 42, 2824-60                                       | 941  |
| 1136 | Few layer graphene to graphitic films: infrared photoconductive versus bolometric response. <b>2013</b> , 5, 381-9                                 | 35   |
| 1135 | Graphene/semiconductor heterojunction solar cells with modulated antireflection and graphene work function. <b>2013</b> , 6, 108-115               | 134  |
| 1134 | Polycrystallinity and stacking in CVD graphene. <b>2013</b> , 46, 2286-96  | 48   |
| 1133 | Preparation and characterization of long-chain alkyl silane-functionalized graphene film. <b>2013</b> , 48, 156-161                                | 50   |
| 1132 | Recent trend in graphene for optoelectronics. <b>2013</b> , 15, 1  | 16   |
| 1131 | Al-TiO <sub>2</sub> composite-modified single-layer graphene as an efficient transparent cathode for organic solar cells. <b>2013</b> , 7, 1740-7  | 80   |
| 1130 | Tunable graphene-silicon heterojunctions for ultrasensitive photodetection. <b>2013</b> , 13, 909-16   | 443  |
| 1129 | Comparative Response of Biosensing Platforms Based on Synthesized Graphene Oxide and Electrochemically Reduced Graphene. <b>2013</b> , 25, 154-165 | 39   |
| 1128 | Graphene/polymer composites for energy applications. <b>2013</b> , 51, 231-253   | 199  |
| 1127 | Numerical experiments on phonon properties of isotope and vacancy-type disordered graphene. <b>2013</b> , 40, 115-122                              | 10   |
| 1126 | Growth of graphene-like films for NO <sub>2</sub> detection. <b>2013</b> , 182, 66-70  | 23   |
| 1125 | Significantly reduced thermal diffusivity of free-standing two-layer graphene in graphene foam. <b>2013</b> , 24, 415706                           | 44   |



|      |  |     |
|------|--|-----|
| 1124 | CW Mode-Locked 1.908 $\mu\text{m}$ Tm:LiYF <sub>4</sub> Slab Laser Based on an Output-Coupling Graphene Saturable Absorber Mirror. <b>2013</b> , 6, 102701         | 10  |
| 1123 | AQ-switched erbium-doped fiber laser with a graphene saturable absorber. <b>2013</b> , 10, 025102  | 40  |
| 1122 | Thermopower and thermoconductance properties of zigzag edged graphene nanoribbon based thermoelectric module. <b>2013</b> , 377, 1486-1490                         | 2   |
| 1121 | Universality, exponents and anomaly cancellation in disordered Dirac fermions. <b>2013</b> , 875, 408-422  | 1   |
| 1120 | Optical analysis of organic photovoltaic cells incorporating graphene as a transparent electrode. <b>2013</b> , 14, 1496-1503                                      | 11  |
| 1119 | Growth of controlled thickness graphene by ion implantation for field-effect transistor. <b>2013</b> , 107, 170-173  | 11  |
| 1118 | How do the electrical properties of graphene change with its functionalization?. <b>2013</b> , 9, 341-50   | 230 |
| 1117 | Encapsulating magnetic nanoparticles in sandwich-like coupled graphene sheets and beyond. <b>2013</b> , 5, 2243-8  | 21  |
| 1116 | 2 $\mu\text{m}$ solid-state laser mode-locked by single-layer graphene. <b>2013</b> , 102, 013113  | 101 |
| 1115 | Plasmon-enhanced photocurrent monitoring of the interaction between porphyrin covalently bonded to graphene oxide and adenosine nucleotides. <b>2013</b> , 3, 3503 | 11  |
| 1114 | A general strategy towards encapsulation of nanoparticles in sandwiched graphene sheets and the synergic effect on energy storage. <b>2013</b> , 19, 3340-7        | 33  |
| 1113 | Graphene synthesis: relationship to applications. <b>2013</b> , 5, 38-51   | 533 |
| 1112 | Photoexcitation cascade and multiple hot-carrier generation in graphene. <b>2013</b> , 9, 248-252  | 403 |
| 1111 | A review of carbon nanotube- and graphene-based flexible thin-film transistors. <b>2013</b> , 9, 1188-205  | 237 |
| 1110 | Graphene: promises, facts, opportunities, and challenges in nanomedicine. <b>2013</b> , 113, 3407-24   | 563 |
| 1109 | Structural and charge transport characteristics of graphene layers obtained from CVD thin film and bulk graphite materials. <b>2013</b> , 52, 49-55                | 9   |
| 1108 | Hyperbolic metamaterials based on multilayer graphene structures. <b>2013</b> , 87,  | 224 |
| 1107 | Synthesis of patched or stacked graphene and hBN flakes: a route to hybrid structure discovery. <b>2013</b> , 13, 933-41   | 162 |

|      |   |     |
|------|---|-----|
| 1106 | Graphene-based voltage-tunable coherent terahertz emitter. <b>2013</b> , 87,  | 37  |
| 1105 | Generation of entangled photons in graphene in a strong magnetic field. <b>2013</b> , 110, 077404   | 81  |
| 1104 | Enhanced optical response of hybridized VO <sub>2</sub> /graphene films. <b>2013</b> , 5, 2632-6  | 29  |
| 1103 | Enhanced Raman Scattering of Graphene using Arrays of Split Ring Resonators. <b>2013</b> , 1, 151-157   | 28  |
| 1102 | Graphene terahertz uncooled bolometers. <b>2013</b> , 46, 065102  | 30  |
| 1101 | Graphene and its derivatives for the development of solar cells, photoelectrochemical, and photocatalytic applications. <b>2013</b> , 6, 1362                                 | 324 |
| 1100 | A graphene passively Q-switched Nd:YAG ceramic laser at 1123 nm. <b>2013</b> , 10, 035803   | 17  |
| 1099 | Synthesis and applications of graphene-based noble metal nanostructures. <b>2013</b> , 16, 29-36  | 226 |
| 1098 | Probing the dielectric response of graphene via dual-band plasmonic nanoresonators. <b>2013</b> , 15, 5395-9  | 10  |
| 1097 | Concept of infrared photodetector based on graphene-graphene nanoribbon structure. <b>2013</b> , 59, 137-141  | 6   |
| 1096 | Assembling tin dioxide quantum dots to graphene nanosheets by a facile ultrasonic route. <b>2013</b> , 29, 4111-8   | 47  |
| 1095 | Near-Infrared photoluminescence in the femtosecond time region in monolayer graphene on SiO <sub>2</sub> . <b>2013</b> , 7, 2335-43   | 22  |
| 1094 | Graphene-Based Polymer Composites and Their Applications. <b>2013</b> , 52, 319-331   | 412 |
| 1093 | In situ assembly of graphene sheets-supported SnS <sub>2</sub> nanoplates into 3D macroporous aerogels for high-performance lithium ion batteries. <b>2013</b> , 237, 178-186 | 157 |
| 1092 | Influence of synthesis conditions on properties of green-reduced graphene oxide. <b>2013</b> , 15, 1  | 28  |
| 1091 | Universal distance-scaling of nonradiative energy transfer to graphene. <b>2013</b> , 13, 2030-5  | 172 |
| 1090 | Two-dimensional semiconductors: recent progress and future perspectives. <b>2013</b> , 1, 2952  | 287 |
| 1089 | Photo-induced free radical modification of graphene. <b>2013</b> , 9, 1134-43   | 24  |

|      |  |     |
|------|--|-----|
| 1088 | Graphene in light: design, synthesis and applications of photo-active graphene and graphene-like materials. <b>2013</b> , 9, 1266-83   | 105 |
| 1087 | Spectroscopic Ellipsometry of Nanoscale Materials for Semiconductor Device Applications. <b>2013</b> , 557-581   | 2   |
| 1086 | Dispersive interactions in graphitic nanostructures. <b>2013</b> , 413, 116-122  | 4   |
| 1085 | Enhanced optical limiting in functionalized hydrogen exfoliated graphene and its metal hybrids. <b>2013</b> , 1, 2773  | 95  |
| 1084 | Transparent and conductive reduced graphene oxide/silver nanoparticles multilayer film obtained by electrical self-assembly process with graphene oxide sheets and silver colloid. <b>2013</b> , 3, 3391 | 43  |
| 1083 | Using self-assembly to prepare a graphene-silver nanowire hybrid film that is transparent and electrically conductive. <b>2013</b> , 58, 198-207   | 71  |
| 1082 | Exact solution for square-wave grating covered with graphene: surface plasmon-polaritons in the terahertz range. <b>2013</b> , 25, 125303  | 32  |
| 1081 | Bioinspired wafer-scale production of highly stretchable carbon films for transparent conductive electrodes. <b>2013</b> , 52, 5535-8  | 108 |
| 1080 | Simulation and Analysis of a Sub-Wavelength Grating Based Multilayer Surface Plasmon Resonance Biosensor. <b>2013</b> , 31, 1388-1398  | 14  |
| 1079 | Graphene-Based Nanomaterials: Synthesis, Properties, and Optical and Optoelectronic Applications. <b>2013</b> , 23, 1984-1997  | 212 |
| 1078 | Hydrogen-excluded graphene synthesis via atmospheric pressure chemical vapor deposition. <b>2013</b> , 59, 439-447   | 42  |
| 1077 | Highly Conductive Porous Graphene/Ceramic Composites for Heat Transfer and Thermal Energy Storage. <b>2013</b> , 23, 2263-2269   | 240 |
| 1076 | Graphene Covalently Modified by DNA G-Base. <b>2013</b> , 117, 3513-3519   | 10  |
| 1075 | Highly responsive ultrathin GaS nanosheet photodetectors on rigid and flexible substrates. <b>2013</b> , 13, 1649-54   | 573 |
| 1074 | . <b>2013</b> , 101, 1705-1716   | 88  |
| 1073 | Twisted bi-layer graphene: microscopic rainbows. <b>2013</b> , 9, 3247-51  | 26  |
| 1072 | Graphene layers on Cu and Ni (111) surfaces in layer controlled graphene growth. <b>2013</b> , 3, 3046   | 31  |
| 1071 | A continuum model for the static pull-in behavior of graphene nanoribbon electrostatic actuators with interlayer shear and surface energy effects. <b>2013</b> , 113, 153512                             | 38  |

|      |  |     |
|------|--|-----|
| 1070 | Graphene-Based Chemical and Biosensors. <b>2013</b> , 103-141  | 9   |
| 1069 | The electronic properties of bilayer graphene. <b>2013</b> , 76, 056503  | 585 |
| 1068 | Noncovalent functionalization of graphene attaching [6,6]-phenyl-C61-butyric acid methyl ester (PCBM) and application as electron extraction layer of polymer solar cells. <b>2013</b> , 7, 4070-81          | 133 |
| 1067 | Semiconductor nanowires directly grown on graphene--towards wafer scale transferable nanowire arrays with improved electrical contact. <b>2013</b> , 5, 4114-8   | 36  |
| 1066 | Photosystem I on graphene as a highly transparent, photoactive electrode. <b>2013</b> , 29, 4177-80  | 68  |
| 1065 | Improving the photovoltaic performance of cadmium sulfide quantum dots-sensitized solar cell by graphene/titania photoanode. <b>2013</b> , 96, 110-116   | 49  |
| 1064 | Measurement of Interlayer Screening Length of Layered Graphene by Plasmonic Nanostructure Resonances. <b>2013</b> , 117, 22211-22217   | 37  |
| 1063 | Enhanced photovoltaic performance of a dye-sensitized solar cell using graphene-TiO <sub>2</sub> photoanode prepared by a novel in situ simultaneous reduction-hydrolysis technique. <b>2013</b> , 5, 3481-5 | 78  |
| 1062 | Nondestructive Characterization of Graphene Defects. <b>2013</b> , 23, 5183-5189   | 38  |
| 1061 | Observation of a transient decrease in terahertz conductivity of single-layer graphene induced by ultrafast optical excitation. <b>2013</b> , 13, 524-30   | 179 |
| 1060 | Visible photoresponse of single-layer graphene decorated with TiO <sub>2</sub> nanoparticles. <b>2013</b> , 9, 2076-80   | 55  |
| 1059 | Roles of graphene oxide in photocatalytic water splitting. <b>2013</b> , 16, 78-84   | 279 |
| 1058 | Effects of multi-layer graphene capping on Cu interconnects. <b>2013</b> , 24, 115707  | 52  |
| 1057 | Co-Percolating Graphene-Wrapped Silver Nanowire Network for High Performance, Highly Stable, Transparent Conducting Electrodes. <b>2013</b> , 23, 5150-5158  | 197 |
| 1056 | Ambient fabrication of large-area graphene films via a synchronous reduction and assembly strategy. <b>2013</b> , 25, 2957-62  | 162 |
| 1055 | Polarization-dependent optical absorption of graphene under total internal reflection. <b>2013</b> , 102, 021912   | 81  |
| 1054 | Control of Superhydrophilic and Superhydrophobic Graphene Interface. <b>2013</b> , 3,  | 89  |
| 1053 | Versatile Graphene-Promoting Photocatalytic Performance of Semiconductors: Basic Principles, Synthesis, Solar Energy Conversion, and Environmental Applications. <b>2013</b> , 23, 4996-5008                 | 309 |

|      |  |     |
|------|--|-----|
| 1052 | Broadband high photoresponse from pure monolayer graphene photodetector. <b>2013</b> , 4, 1811   | 556 |
| 1051 | Tunable magnetoplasmons for efficient terahertz modulator and isolator by gated monolayer graphene. <b>2013</b> , 15, 5084-90  | 38  |
| 1050 | The Interaction of Light and Graphene: Basics, Devices, and Applications. <b>2013</b> , 101, 1717-1731   | 77  |
| 1049 | Ag-stabilized few-layer graphene dispersions in low boiling point solvents for versatile nonlinear optical applications. <b>2013</b> , 62, 182-192   | 34  |
| 1048 | Recent advances in alternative cathode materials for iodine-free dye-sensitized solar cells. <b>2013</b> , 6, 2003   | 124 |
| 1047 | Two-Dimensional Nanocrystals: Structure, Properties and Applications. <b>2013</b> , 38, 1289-1304  | 6   |
| 1046 | Photoinduced charge-transfer interactions on a graphene/block copolymer electrostatically bound to tetracationic porphyrin in aqueous media. <b>2013</b> , 19, 9286-90                             | 17  |
| 1045 | Novel nanographene/porphyrin hybrids [preparation, characterization, and application in solar energy conversion schemes. <b>2013</b> , 4, 3085   | 55  |
| 1044 | Mechanochemistry of fullerenes and related materials. <b>2013</b> , 42, 7535-70  | 231 |
| 1043 | Electrophoretic deposition of graphene oxide as a corrosion inhibitor for sintered NdFeB. <b>2013</b> , 279, 416-423   | 105 |
| 1042 | Reduced graphene oxide and CuInS <sub>2</sub> co-decorated TiO <sub>2</sub> nanotube arrays for efficient removal of herbicide 2,4-dichlorophenoxyacetic acid from water. <b>2013</b> , 262, 22-27 | 26  |
| 1041 | Antireflection properties of graphene layers on planar and textured silicon surfaces. <b>2013</b> , 24, 165402   | 28  |
| 1040 | The nonlinear optical properties of coupling and decoupling graphene layers. <b>2013</b> , 3, 042123   | 56  |
| 1039 | Direct PECVD growth of vertically erected graphene walls on dielectric substrates as excellent multifunctional electrodes. <b>2013</b> , 1, 770-775  | 120 |
| 1038 | Terahertz photomixing using plasma resonances in double-graphene layer structures. <b>2013</b> , 113, 174506   | 36  |
| 1037 | Scalable, printable, surfactant-free graphene ink directly from graphite. <b>2013</b> , 24, 205304   | 52  |
| 1036 | Novel Carbon-Based Nanomaterials. <b>2013</b> , 61-87  | 5   |
| 1035 | Nonlinear optics of graphene in a strong magnetic field. <b>2013</b> , 25, 054203  | 40  |

|      |  |     |
|------|--|-----|
| 1034 | SYNTHETIC GRAPHENE GROWN BY CHEMICAL VAPOR DEPOSITION ON COPPER FOILS. <b>2013</b> , 27, 1341002   | 26  |
| 1033 | Transparent conducting film composed of graphene and silver nanowire stacked layers. <b>2013</b> , 175, 42-46                                  | 35  |
| 1032 | Oxygen-assisted charge transfer between ZnO quantum dots and graphene. <b>2013</b> , 9, 3031-6   | 154 |
| 1031 | Self-regulating homogenous growth of high-quality graphene on Co-Cu composite substrate for layer control. <b>2013</b> , 5, 5847-53            | 23  |
| 1030 | Graphene plasmon enhanced photoluminescence in ZnO microwires. <b>2013</b> , 5, 5294-8   | 42  |
| 1029 | Substrate-induced solvent intercalation for stable graphene doping. <b>2013</b> , 7, 1155-62   | 46  |
| 1028 | High-performance, transparent, and stretchable electrodes using graphene-metal nanowire hybrid structures. <b>2013</b> , 13, 2814-21           | 552 |
| 1027 | Efficient inkjet printing of graphene. <b>2013</b> , 25, 3985-92   | 375 |
| 1026 | . <b>2013</b> , 101, 1689-1704   | 181 |
| 1025 | Photocurrent in graphene harnessed by tunable intrinsic plasmons. <b>2013</b> , 4, 1951  | 242 |
| 1024 | Quantum magneto-oscillations in the ac conductivity of disordered graphene. <b>2013</b> , 87,  | 14  |
| 1023 | One-step reduction, characterization and magnetic behaviour of exfoliated graphene oxide. <b>2013</b> , 31, 59-64                              | 6   |
| 1022 | Graphene metamaterial for optical reflection modulation. <b>2013</b> , 102, 241914   | 70  |
| 1021 | Enhanced photocatalytic activity of graphene/TiO <sub>2</sub> composite under visible light irradiation. <b>2013</b> , 13, 659-663             | 112 |
| 1020 | Raman spectroscopic imaging of graphene dispersion in polymer composites. <b>2013</b> , 62, 510-513  | 45  |
| 1019 | Regulating infrared photoresponses in reduced graphene oxide phototransistors by defect and atomic structure control. <b>2013</b> , 7, 6310-20 | 89  |
| 1018 | Focused-laser-enabled p-n junctions in graphene field-effect transistors. <b>2013</b> , 7, 5850-7  | 68  |
| 1017 | A Generic Synthetic Approach to Large-Scale Pristine-Graphene/Metal-Nanoparticles Hybrids. <b>2013</b> , 23, 5771-5777                         | 40  |

|      |   |     |
|------|---|-----|
| 1016 | Stacking-dependent optical absorption in multilayer graphene. <b>2013</b> , 15, 015010  | 40  |
| 1015 | Optical Hall conductivity of systems with gapped spectral nodes. <b>2013</b> , 86, 1  | 7   |
| 1014 | Sensitivity enhanced biosensor using graphene-based one-dimensional photonic crystal. <b>2013</b> , 182, 424-428  | 100 |
| 1013 | Multilayer graphenes with mixed stacking structure: Interplay of Bernal and rhombohedral stacking. <b>2013</b> , 87,  | 20  |
| 1012 | Bioinspired prospects of graphene: from biosensing to energy. <b>2013</b> , 1, 3521-3534  | 24  |
| 1011 | Improving Tuning Range and Sensitivity of Localized SPR Sensors With Graphene. <b>2013</b> , 25, 867-870  | 32  |
| 1010 | Transparent and flexible multi-layer films with graphene recording layers for optical data storage. <b>2013</b> , 102, 253501   | 13  |
| 1009 | Single defect center scanning near-field optical microscopy on graphene. <b>2013</b> , 13, 3152-6   | 68  |
| 1008 | Mixed phase, sp <sup>2</sup> sp <sup>3</sup> bonded, and disordered few layer graphene-like nanocarbon: Synthesis and characterizations. <b>2013</b> , 271, 86-92           | 17  |
| 1007 | Plasmon hybridization in graphene metamaterials. <b>2013</b> , 102, 253110  | 38  |
| 1006 | Optical time reversal with graphene. <b>2013</b> , 9, 393-394   | 7   |
| 1005 | Tunable photoresponse of epitaxial graphene on SiC. <b>2013</b> , 103, 013106   | 23  |
| 1004 | Graphene sheet-starch platform based on the groove recognition for the sensitive and highly selective determination of iodide in seafood samples. <b>2013</b> , 47, 396-401 | 12  |
| 1003 | Terahertz and optical study of monolayer graphene processed by plasma oxidation. <b>2013</b> , 102, 131901  | 23  |
| 1002 | Graphene-P(VDF-TrFE) multilayer film for flexible applications. <b>2013</b> , 7, 3130-8   | 194 |
| 1001 | A platform for large-scale graphene electronics--CVD growth of single-layer graphene on CVD-grown hexagonal boron nitride. <b>2013</b> , 25, 2746-52                        | 196 |
| 1000 | Terahertz, optical, and Raman signatures of monolayer graphene behavior in thermally reduced graphene oxide films. <b>2013</b> , 113, 183502                                | 17  |
| 999  | Self-Limiting Chemical Vapor Deposition Growth of Monolayer Graphene from Ethanol. <b>2013</b> , 117, 10755-10763   | 79  |

|     |   |      |
|-----|---|------|
| 998 | Flexible, transparent, and noncytotoxic graphene electric field stimulator for effective cerebral blood volume enhancement. <b>2013</b> , 7, 4869-78  | 9    |
| 997 | Quantum Faraday and Kerr rotations in graphene. <b>2013</b> , 4, 1841   | 126  |
| 996 | Growing vertical ZnO nanorod arrays within graphite: efficient isolation of large size and high quality single-layer graphene. <b>2013</b> , 49, 6286-8                                     | 9    |
| 995 | Exploiting nanocarbons in dye-sensitized solar cells. <b>2014</b> , 348, 53-93  | 26   |
| 994 | Impermeability of graphene and its applications. <b>2013</b> , 62, 1-10   | 467  |
| 993 | A green and facile one-pot synthesis of Ag <sub>2</sub> ZnO/RGO nanocomposite with effective photocatalytic activity for removal of organic pollutants. <b>2013</b> , 39, 5083-5091         | 98   |
| 992 | Transparent Graphene Electrodes for Highly Efficient III/V Multijunction Concentrator Solar Cells. <b>2013</b> , 1, 283-286   |      |
| 991 | Bioinspired Wafer-Scale Production of Highly Stretchable Carbon Films for Transparent Conductive Electrodes. <b>2013</b> , 125, 5645-5648   | 37   |
| 990 | Direct physical exfoliation of few-layer graphene from graphite grown on a nickel foil using polydimethylsiloxane with tunable elasticity and adhesion. <b>2013</b> , 24, 205302            | 9    |
| 989 | Geometric and Electronic Structures as well as Thermodynamic Stability of Hexyl-Modified Silicon Nanosheet. <b>2013</b> , 117, 13283-13288  | 15   |
| 988 | Solvated graphenes: an emerging class of functional soft materials. <b>2013</b> , 25, 13-30   | 192  |
| 987 | Extraordinary sunlight absorption and one nanometer thick photovoltaics using two-dimensional monolayer materials. <b>2013</b> , 13, 3664-70  | 1346 |
| 986 | Universal conductivity of graphene in the ultrarelativistic regime. <b>2013</b> , 87,   | 17   |
| 985 | Flexible thermochromic window based on hybridized VO <sub>2</sub> /graphene. <b>2013</b> , 7, 5769-76   | 123  |
| 984 | TiO <sub>2</sub> decoration of graphene layers for highly efficient photocatalyst: Impact of calcination at different gas atmosphere on photocatalytic efficiency. <b>2013</b> , 129, 62-70 | 98   |
| 983 | Graphene ultrathin film electrode for detection of lead ions in acetate buffer solution. <b>2013</b> , 103, 47-55   | 22   |
| 982 | Solution-processable graphene nanomeshes with controlled pore structures. <b>2013</b> , 3, 1996   | 77   |
| 981 | Spontaneous intercalation of long-chain alkyl ammonium into edge-selectively oxidized graphite to efficiently produce high-quality graphene. <b>2013</b> , 3, 2636                          | 35   |



|     |   |    |
|-----|---|----|
| 980 | Thermal transport in lattice-constrained 2D hybrid graphene heterostructures. <b>2013</b> , 25, 445007  | 11 |
| 979 | Optical conductivity, Drude weight and plasmons in twisted graphene bilayers. <b>2013</b> , 15, 113050  | 58 |
| 978 | Tunable Interface Properties between Pentacene and Graphene on the SiC Substrate. <b>2013</b> , 117, 3969-3975                                | 18 |
| 977 | THERMOELECTRIC AND THERMOMAGNETIC PROPERTIES OF GRAPHENE IN THE PRESENCE OF DIFFERENT SCATTERING PROCESSES. <b>2013</b> , 27, 1350060         | 3  |
| 976 | Transfer-Free Selective Area Synthesis of Graphene Using Solid-State Self-Segregation of Carbon In Cu/Ni Bilayers. <b>2013</b> , 2, M17-M21   | 12 |
| 975 | Carbon nanowalls: the next step for physical manifestation of the black body coating. <b>2013</b> , 3, 3328                                   | 52 |
| 974 | Transverse current response of graphene at finite temperature: plasmons and absorption. <b>2013</b> , 15, 114005                              | 10 |
| 973 | Transparent and highly conductive liquid-phase exfoliated graphite films treated with low-temperature air-annealing. <b>2013</b> , 143, 85-92 | 10 |
| 972 | Nonlocal laser annealing to improve thermal contacts between multi-layer graphene and metals. <b>2013</b> , 24, 155301                        | 18 |
| 971 | Theory of the plasma-wave photoresponse of a gated graphene sheet. <b>2013</b> , 88,  | 66 |
| 970 | Enhanced absorption of graphene in the visible region by use of plasmonic nanostructures. <b>2013</b> , 15, 055003                            | 54 |
| 969 | Quantum confinement effects in transferrable silicon nanomembranes and their applications on unusual substrates. <b>2013</b> , 13, 5600-7     | 41 |
| 968 | Graphene oxide-based drug delivery vehicles: functionalization, characterization, and cytotoxicity evaluation. <b>2013</b> , 15, 1            | 59 |
| 967 | Hyperspectral imaging of structure and composition in atomically thin heterostructures. <b>2013</b> , 13, 3942-6                              | 37 |
| 966 | Hydrogen Storage in Graphene-Based Materials: Efforts Towards Enhanced Hydrogen Absorption. <b>2013</b> , 2, M3160-M3169                      | 85 |
| 965 | Nonlinear control of absorption in one-dimensional photonic crystal with graphene-based defect. <b>2013</b> , 38, 3550-3                      | 76 |
| 964 | Tuning the transport gap of functionalized graphene via electron beam irradiation. <b>2013</b> , 15, 033024                                   | 23 |
| 963 | Charge Doping of Large-Area Graphene by Gold-Alloy Nanoparticles. <b>2013</b> , 117, 26804-26810  | 22 |

|     |   |     |
|-----|---|-----|
| 962 | Dimensional dependence of phonon transport in freestanding atomic layer systems. <b>2013</b> , 5, 11870-5   | 5   |
| 961 | Optical conductivity of twisted bilayer graphene. <b>2013</b> , 87,   | 56  |
| 960 | Optoelectronic properties of ABC-stacked trilayer graphene. <b>2013</b> , 250, 86-94  | 6   |
| 959 | Integration of graphene into thin film transistors. <b>2013</b> , 28, 175-180   | 5   |
| 958 | Strong light-matter interaction in systems described by a modified Dirac equation. <b>2013</b> , 25, 305801   | 8   |
| 957 | Transient charge and energy balance in graphene induced by ultrafast photoexcitation. <b>2013</b> , 25, 314201  | 6   |
| 956 | Solution processed graphene for photonics and optoelectronics. <b>2013</b> ,  | 1   |
| 955 | Effects of nonlocal plasmons in gapped graphene micro-ribbon array and two-dimensional electron gas on near-field electromagnetic response in the deep subwavelength regime. <b>2013</b> , 52, 755-69 | 4   |
| 954 | Demonstration of complex refractive index of graphene waveguide by microfiber-based Mach-Zehnder interferometer. <b>2013</b> , 21, 29818-26   | 28  |
| 953 | Strong enhancement of light absorption and highly directive thermal emission in graphene. <b>2013</b> , 21, 11618-27  | 49  |
| 952 | A 3D tunable and multi-frequency graphene plasmonic cloak. <b>2013</b> , 21, 12592-603  | 71  |
| 951 | Graphene/liquid crystal based terahertz phase shifters. <b>2013</b> , 21, 21395-402   | 68  |
| 950 | A novel structure for tunable terahertz absorber based on graphene. <b>2013</b> , 21, 23803-11  | 137 |
| 949 | Fabry-Perot enhanced Faraday rotation in graphene. <b>2013</b> , 21, 24736-41   | 44  |
| 948 | Perfect blackbody radiation from a graphene nanostructure with application to high-temperature spectral emissivity measurements. <b>2013</b> , 21, 30964-74   | 31  |
| 947 | High-quality Si <sub>3</sub> N <sub>4</sub> circuits as a platform for graphene-based nanophotonic devices. <b>2013</b> , 21, 31678-89  | 36  |
| 946 | Fe <sup>2+</sup> :ZnSe and graphene Q-switched singly Ho <sup>3+</sup> -doped ZBLAN fiber lasers at 3 $\mu$ m. <b>2013</b> , 3, 1365  | 86  |
| 945 | Enhancing infrared extinction and absorption in a monolayer graphene sheet by harvesting the electric dipolar mode of split ring resonators. <b>2013</b> , 38, 5410-3                                 | 51  |

|     |   |    |
|-----|---|----|
| 944 | Probing structural inhomogeneity of graphene layers via nonlinear optical scattering. <b>2013</b> , 38, 4589-92   | 5  |
| 943 | Pyroelectric origin of the carrier density modulation at graphene-ferroelectric interface. <b>2013</b> , 114, 014101  | 13 |
| 942 | Transfer-free fabrication of graphene field effect transistor arrays using solid-phase growth of graphene on a SiO <sub>2</sub> /Si substrate. <b>2013</b> , 103, 183114        | 16 |
| 941 | Repulsive interactions of a lipid membrane with graphene in composite materials. <b>2013</b> , 139, 184703  | 5  |
| 940 | Controllable broadband nonlinear optical response of graphene dispersions by tuning vacuum pressure. <b>2013</b> , 21, 16486-93   | 28 |
| 939 | Progress in Imidazolium Ionic Liquids Assisted Fabrication of Carbon Nanotube and Graphene Polymer Composites. <b>2013</b> , 5, 847-872   | 72 |
| 938 | Electronic Structure Tuning and Interface Charge Transfer in Hybrid Graphene/Titania and Adatom/Graphene/Titania: First Principles Calculations. <b>2013</b> , 873, 471-478     |    |
| 937 | Time-resolved spectroscopy on epitaxial graphene in the infrared spectral range: relaxation dynamics and saturation behavior. <b>2013</b> , 25, 054202                          | 46 |
| 936 | MeV Electron-Beam Induced Clusterization of Platinum Chloride on Graphene for Transparent Conductive Electrodes. <b>2013</b> , 677, 25-30                                       | 1  |
| 935 | A Model Dielectric Function for Graphene from the Infrared to the Ultraviolet. <b>2013</b> , 1505, 1  |    |
| 934 | InGaN-based vertical light-emitting diodes with acid-modified graphene transparent conductor and highly reflective membrane current blocking layer. <b>2013</b> , 469, 20120652 | 9  |
| 933 | Broad-band, High-efficiency Optical Absorbers Derived From Carbon Nanomaterials. <b>2013</b> , 1505, 1  |    |
| 932 | Optoelectronic properties of graphene-MoS <sub>2</sub> hybrid. <b>2013</b> , 1505, 1  | 2  |
| 931 | Electromagnetic nonlinearities in graphene. <b>2013</b> , 171-221e  | 7  |
| 930 | Structure Sensitivity of H <sub>2</sub> O Adsorption on Graphene-Supported Bi <sub>2</sub> WO <sub>6</sub> . <b>2013</b> , 448-453, 123-127                                     |    |
| 929 | Nondegradative Dielectric Coating on Graphene by Thermal Evaporation of SiO. <b>2013</b> , 52, 125102   | 8  |
| 928 | Generation of rectangular optical waves by relativistic clipping. <b>2013</b> , 23, 056006  |    |
| 927 | Conductivity of Coulomb interacting massless Dirac particles in graphene: Regularization-dependent parameters and symmetry constraints. <b>2013</b> , 104, 27002                | 14 |

|     |   |     |
|-----|---|-----|
| 926 | Toward the High-Quality Graphene for Optoelectronic Applications by Optimization of the Growth and Transfer Parameters. <b>2013</b> , 834-836, 33-36                        |     |
| 925 | All-carbon-based field effect transistors fabricated by aerosol jet printing on flexible substrates. <b>2013</b> , 23, 065027   | 27  |
| 924 | Facile synthesis of graphene on dielectric surfaces using a two-temperature reactor CVD system. <b>2013</b> , 24, 395603  | 20  |
| 923 | Fabrication of large-area twisted bilayer graphene for high-speed ultra-sensitive tunable photodetectors. <b>2013</b> ,   | 4   |
| 922 | Uniformly Distributed Graphene Domain Grows on Standing Copper via Low-Pressure Chemical Vapor Deposition. <b>2013</b> , 2013, 1-5  | 1   |
| 921 | Great light absorption enhancement in a graphene photodetector integrated with a metamaterial perfect absorber. <b>2013</b> , 5, 9615-9                                     | 120 |
| 920 | Phase change in terahertz waves emitted from differently doped graphite: The role of carrier drift. <b>2013</b> , 103, 201108   | 8   |
| 919 | Square-micrometer-sized, free-standing organometallic sheets and their square-centimeter-sized multilayers on solid substrates. <b>2013</b> , 34, 1670-80                   | 63  |
| 918 | Carbon nanotube and graphene photonic devices: nonlinearity enhancement and novel preparation approaches. <b>2013</b> , 57-97e  | 0   |
| 917 | Simultaneous electrical and optical readout of graphene-coated high Q silicon nitride resonators. <b>2013</b> , 103, 143103   | 15  |
| 916 | High Performance Ultraviolet Photodetector Fabricated with ZnO Nanoparticles-graphene Hybrid Structures. <b>2013</b> , 26, 225-230  | 14  |
| 915 | Terahertz plasmonic properties of highly oriented pyrolytic graphite. <b>2013</b> , 102, 171107   | 5   |
| 914 | Thermal conductivity of suspended few-layer graphene by a modified T-bridge method. <b>2013</b> , 103, 133102   | 44  |
| 913 | Influence of transfer residue on the optical properties of chemical vapor deposited graphene investigated through spectroscopic ellipsometry. <b>2013</b> , 114, 093505     | 32  |
| 912 | Hysteresis and charge trapping in graphene quantum dots. <b>2013</b> , 102, 143104  | 36  |
| 911 | Ultrafast and widely tuneable vertical-external-cavity surface-emitting laser, mode-locked by a graphene-integrated distributed Bragg reflector. <b>2013</b> , 21, 31548-59 | 91  |
| 910 | Simultaneous mode-locking at 1565 nm and 1944 nm in fiber laser based on common graphene saturable absorber. <b>2013</b> , 21, 18994-9002                                   | 50  |
| 909 | Photonic band gap of a graphene-embedded quarter-wave stack. <b>2013</b> , 88,  | 60  |

|     |  |     |
|-----|--|-----|
| 908 | The evolution of Raman spectrum of graphene with the thickness of SiO <sub>2</sub> capping layer on Si substrate. <b>2013</b> , 103, 213103                                    | 27  |
| 907 | Graphene-gold Nanoparticle Composite Film Modified Electrode for Determination of Trace Mercury in Environmental Water. <b>2013</b> , 26, 590-596                              | 3   |
| 906 | A dynamically reconfigurable Fano metamaterial through graphene tuning for switching and sensing applications. <b>2013</b> , 3, 2105   | 154 |
| 905 | Enhanced performance of GaN-based light-emitting diodes with graphene/Ag nanowires hybrid films. <b>2013</b> , 3, 042134   | 19  |
| 904 | Terahertz transmission and sheet conductivity of randomly stacked multi-layer graphene. <b>2013</b> , 102, 191109  | 33  |
| 903 | Calculation of divergent photon absorption in ultrathin films of a topological insulator. <b>2013</b> , 88,  | 22  |
| 902 | Electrical Resistivity Measurements of Layer Number Determined Multilayer Graphene Wiring for Future Large Scale Integrated Circuit Interconnects. <b>2013</b> , 52, 06GD08    | 8   |
| 901 | Note on an application of the method of uniqueness to reduced quantum electrodynamics. <b>2013</b> , 87,   | 25  |
| 900 | Effect of uniaxial strain on ferromagnetic instability and formation of localized magnetic states on adatoms in graphene. <b>2013</b> , 87,                                    | 17  |
| 899 | Fabrication of a Schottky junction diode with direct growth graphene on silicon by a solid phase reaction. <b>2013</b> , 46, 455103  | 27  |
| 898 | Time- and space-modulated Raman signals in graphene-based optical cavities. <b>2013</b> , 15, 114010   | 8   |
| 897 | Soft-boundary graphene nanoribbon formed by a graphene sheet above a perturbed ground plane: conductivity profile and SPP modal current distribution. <b>2013</b> , 15, 114006 | 10  |
| 896 | Graphene nanonet for biological sensing applications. <b>2013</b> , 24, 375302   | 7   |
| 895 | Resistive coupling of localized plasmon resonances in metallic nanostripes through a graphene layer. <b>2013</b> , 15, 114002  | 6   |
| 894 | Optical conductivity of ABA-stacked trilayer graphene. <b>2013</b> , 22, 017303  | 4   |
| 893 | Strained graphene as a local probe for plasmon-enhanced Raman scattering by gold nanostructures. <b>2013</b> , 7, 1067-1070  | 10  |
| 892 | GRAPHENE-BASED TRANSPARENT CONDUCTIVE FILMS. <b>2013</b> , 08, 1330001   | 46  |
| 891 | Ultrafast refractive index control of a terahertz graphene metamaterial. <b>2013</b> , 3, 2135   | 37  |

|     |   |    |
|-----|---|----|
| 890 | Position-Controlled Direct Graphene Synthesis on Silicon Oxide Surfaces Using Laser Irradiation. <b>2013</b> , 6, 105101                                  | 10 |
| 889 | Fluorescence quenching of CdSe quantum dots on graphene. <b>2013</b> , 103, 201909  | 16 |
| 888 | Large-scale graphene micropattern nano-biohybrids: high-performance transducers for FET-type flexible fluidic HIV immunoassays. <b>2013</b> , 25, 4177-85 | 85 |
| 887 | Gas transport controlled synthesis of graphene by employing a micro-meter scale gap jig. <b>2013</b> , 3, 26376   | 4  |
| 886 | Quantum of optical absorption in two-dimensional semiconductors. <b>2013</b> , 110, 11688-91  | 61 |
| 885 | Reduced Graphene Oxide/CuI Nanocomposite: An Efficient and Recyclable Catalyst for the N-Phenylation of Indole. <b>2013</b> , 42, 709-710                 | 5  |
| 884 | Graphene-Based Integrated Electronic, Photonic and Spintronic Circuit. <b>2013</b> , 308-318  | 2  |
| 883 | Graphene-Based Materials in Gas Sensors. <b>2013</b> , 91-132   |    |
| 882 | Formation of a Transparent Electroconductive Film Derived from Fullerene Thin Film. <b>2013</b> , 77, 59-63   | 1  |
| 881 | Transport spectroscopy of a graphene quantum dot fabricated by atomic force microscope nanolithography. <b>2013</b> , 103, 183117                         | 30 |
| 880 | Micro- and nanoscale electrical characterization of large-area graphene transferred to functional substrates. <b>2013</b> , 4, 234-42                     | 26 |
| 879 | Effects of Localized Trap-States and Corrugation on Charge Transport in Graphene Nanoribbons. <b>2013</b> , 2, 178-191                                    | 1  |
| 878 | Films of Carbon Nanomaterials for Transparent Conductors. <b>2013</b> , 6, 2155-2181  | 16 |
| 877 | Building up graphene-based conductive polymer composite thin films using reduced graphene oxide prepared by E-ray irradiation. <b>2013</b> , 2013, 954324 | 7  |
| 876 | . <b>2013</b> ,   | 31 |
| 875 | Hybrid Materials for Integrated Photonics. <b>2014</b> , 2014, 1-24   | 16 |
| 874 | Fundamental Nature of the Fine-Structure Constant. <b>2014</b> , 2,   | 5  |
| 873 | MULTI-PHYSICAL PROPERTIES OF PLASMONIC ORGANIC SOLAR CELLS (Invited Paper). <b>2014</b> , 146, 25-46  | 10 |

|     |   |    |
|-----|---|----|
| 872 | Absorption and Losses in One-Dimensional Photonic-Crystal-Based Absorbers Incorporating Graphene. <b>2014</b> , 6, 1-8  | 25 |
| 871 | Graphene enhanced evanescent field in microfiber multimode interferometer for highly sensitive gas sensing. <b>2014</b> , 22, 28154-62  | 59 |
| 870 | Graphene Bragg gratings on microfiber. <b>2014</b> , 22, 23829-35   | 17 |
| 869 | Superconductivity in graphene-lithium. <b>2014</b> , 1, 021005  | 30 |
| 868 | Plasmonic metamaterials. <b>2014</b> , 3,   | 49 |
| 867 | Single-molecule study for a graphene-based nano-position sensor. <b>2014</b> , 16, 113007   | 21 |
| 866 | Optical conductivity of ABA stacked graphene trilayer: mid-IR resonance due to band nesting. <b>2014</b> , 26, 395301   | 4  |
| 865 | Electron and hole photoemission detection for band offset determination of tunnel field-effect transistor heterojunctions. <b>2014</b> , 105, 213501  | 6  |
| 864 | Surface Plasmon Polaritons in Complex Settings and Generalized Geometries. <b>2014</b> , 4, 253-278   | 0  |
| 863 | Controlled covalent modification of epitaxial single layer graphene on 6H-SiC (0001) with arylidonium salts using electrochemical methods. <b>2014</b> , 172, 273-91  | 18 |
| 862 | Stability and electronic properties of isomers of B/N co-doped graphene. <b>2014</b> , 4, 989-996   | 38 |
| 861 | Chemical vapor deposited graphene: From synthesis to applications. <b>2014</b> , 211, 2439-2449   | 59 |
| 860 | Kohn-Luttinger superconductivity in monolayer and bilayer semimetals with the Dirac spectrum. <b>2014</b> , 119, 1140-1149  | 4  |
| 859 | Metallic and Passive Components. <b>2014</b> , 63-110   |    |
| 858 | Chemical vapour deposition growth of graphene layers on metal substrates. <b>2014</b> , 558, 012059   | 3  |
| 857 | Fully reproducible, low-temperature synthesis of high-quality, few-layer graphene on nickel via preheating of gas precursors using atmospheric pressure chemical vapor deposition. <b>2014</b> , 2, 19750-19758 | 21 |
| 856 | Nonadiabatic microfiber based mode-locked erbium-doped fiber laser using graphene. <b>2014</b> , 56, 1670-1673  | 1  |
| 855 | Preparation, Applications of Two-Dimensional Graphene-like Molybdenum Disulfide. <b>2014</b> , 158, 26-42   | 16 |

|     |   |    |
|-----|---|----|
| 854 | Hysteresis analysis of graphene transistor under repeated test and gate voltage stress. <b>2014</b> , 35, 094003  | 4  |
| 853 | Optical and electronic structure of quasi-freestanding multilayer graphene on the carbon face of SiC. <b>2014</b> , 108, 37009  | 7  |
| 852 | Towards perfect impedance matching of free space to a 2D material. <b>2014</b> ,  | 1  |
| 851 | A wide-angle broadband absorber in graphene-based hyperbolic metamaterials. <b>2014</b> , 68, 20401   | 27 |
| 850 | Determination of the Number of Graphene Layers on Different Substrates by Optical Microscopy Technique. <b>2014</b> , 44, 682-686   | 2  |
| 849 | Valley-spin polarization in the magneto-optical response of square lattice. <b>2014</b> , 87, 1   | 1  |
| 848 | Direct growth of graphene on quartz substrates for label-free detection of adenosine triphosphate. <b>2014</b> , 25, 165702   | 35 |
| 847 | Growth of graphene from SiC{0001} surfaces and its mechanisms. <b>2014</b> , 29, 064009   | 25 |
| 846 | Nonlinear Processes in One-Dimensional Photonic Crystal with Graphene-based Defect. <b>2014</b> ,   |    |
| 845 | Highly tunable quantum Hall far-infrared photodetector by use of GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As-graphene composite material. <b>2014</b> , 105, 181103   | 4  |
| 844 | Electronic Transport and Optical Properties of Graphene. <b>2014</b> , 1-16   |    |
| 843 | Enhanced absorption of graphene strips with a multilayer subwavelength grating structure. <b>2014</b> , 105, 221113   | 50 |
| 842 | A review of nanographene: growth and applications. <b>2014</b> , 28, 1430009  | 7  |
| 841 | Nonlinear transmission of an intense terahertz field through monolayer graphene. <b>2014</b> , 4, 117118  | 20 |
| 840 | Liquid-phase exfoliation of chemical vapor deposition-grown single layer graphene and its application in solution-processed transparent electrodes for flexible organic light-emitting devices. <b>2014</b> , 105, 243509 | 11 |
| 839 | Strain-induced modulation of anisotropic photoconductivity in graphene. <b>2014</b> , 53, 115103  | 3  |
| 838 | Graphene Active Plasmonics for New Types of Terahertz Lasers. <b>2014</b> , 23, 1450016   | 1  |
| 837 | Electronic and optical properties of graphene antidot lattices: comparison of Dirac and tight-binding models. <b>2014</b> , 26, 265301  | 11 |



|     |   |     |
|-----|---|-----|
| 836 | Terahertz radiative coupling and damping in multilayer graphene. <b>2014</b> , 16, 013027                                       | 19  |
| 835 | Graphene: Synthesis, Characterization, and Applications. <b>2014</b> , 1-21   | 0   |
| 834 | Photon-drag-induced terahertz emission from graphene. <b>2014</b> , 90,   | 42  |
| 833 | Graphene-Based Heat Spreader for Flexible Electronic Devices. <b>2014</b> , 61, 4171-4175                                       | 24  |
| 832 | Optical transmittance of multilayer graphene. <b>2014</b> , 108, 17007  | 111 |
| 831 | Optical antenna enhanced graphene photodetector. <b>2014</b> , 105, 241114  | 34  |
| 830 | Boron Nitride Nanosheets for Metal Protection. <b>2014</b> , 1, 1300132   | 95  |
| 829 | Use of graphene-based films for hot spot cooling. <b>2014</b> ,   | 3   |
| 828 | Facile synthesis and photoluminescence mechanism of graphene quantum dots. <b>2014</b> , 116, 244306                            | 30  |
| 827 | Equipment Design for Supercritical Cleavage Technology. <b>2014</b> , 496-500, 939-942  |     |
| 826 | Enhanced Performance of Dye-Sensitized Solar Cells with Graphene/ZnO Nanoparticles Bilayer Structure. <b>2014</b> , 2014, 1-6   | 9   |
| 825 | Optical and Electrical Studies of Graphene Deposited on GaN Nanowires. <b>2014</b> , 126, 1087-1089                             |     |
| 824 | Enhanced Performance of Dye-Sensitized Solar Cells with Nanostructure Graphene Electron Transfer Layer. <b>2014</b> , 2014, 1-4 | 0   |
| 823 | Graphene Quantum Dot-Based Organic Solar Cells. <b>2014</b> , 255-268   | 1   |
| 822 | Chemically driven printed textile sensors based on graphene and carbon nanotubes. <b>2014</b> , 14, 16816-28                    | 39  |
| 821 | Enhanced intervalley scattering in artificially stacked double-layer graphene. <b>2014</b> , 16, 083020                         | 12  |
| 820 | Monolayer graphene bolometer as a sensitive far-IR detector. <b>2014</b> ,  | 5   |
| 819 | Photoluminescence of MoS <sub>2</sub> Prepared by Effective Grinding-Assisted Sonication Exfoliation. <b>2014</b> , 2014, 1-7   | 19  |

|     |   |    |
|-----|---|----|
| 818 | Study of realization tolerances and defects in organic solar cell with textured graphene contacts. <b>2014,</b>                             |    |
| 817 | Graphene based optoelectronics. <b>2014,</b>  | 1  |
| 816 | Growth of graphene on copper and nickel foils via chemical vapour deposition using ethylene. <b>2014</b><br>, 18, S4-706-S4-710             | 15 |
| 815 | Towards perfect impedance matching of free space to a 2D material. <b>2014,</b>   | 1  |
| 814 | Nanometer-scale microscopy via graphene plasmons. <b>2014, 90,</b>  | 26 |
| 813 | Topologically guaranteed enhancement of nonlinear optical conductivity of graphene in the presence of spin-orbit coupling. <b>2014, 90,</b> | 6  |
| 812 | Gain of 56 in graphene silicon carbide schottky collector phototransistor (GSCBT) for radiation detection. <b>2014,</b>                     |    |
| 811 | Mid-infrared Mode-locked Lasers Based on Graphene Saturable Absorber. <b>2014,</b>  |    |
| 810 | Photo-patternable ion gel-gated graphene transistors and inverters on plastic. <b>2014, 25, 014002</b>                                      | 48 |
| 809 | Charge Transfer Dynamics between Colloidal Nanocrystals and Graphene. <b>2014,</b>  |    |
| 808 | Sapphire-based graphene saturable absorber for long-time working femtosecond lasers. <b>2014, 39, 2707-10</b>                               | 20 |
| 807 | Tunable terahertz coherent perfect absorption in a monolayer graphene. <b>2014, 39, 6269-72</b>   | 93 |
| 806 | Graphene and Beyond for Ultrafast Optical Communications and Interconnects. <b>2014,</b>  |    |
| 805 | Pulse characterization by THG d-scan in absorbing nonlinear media. <b>2014, 22, 5234-40</b>   | 15 |
| 804 | Unusual Otto excitation dynamics and enhanced coupling of light to TE plasmons in graphene. <b>2014</b><br>, 22, 847-58                     | 20 |
| 803 | Surface plasmon enhanced photoluminescence of ZnO nanorods by capping reduced graphene oxide sheets. <b>2014, 22, 11436-45</b>              | 45 |
| 802 | Graphene induced high-Q hybridized plasmonic whispering gallery mode microcavities. <b>2014, 22, 23836-50</b>                               | 17 |
| 801 | Electro-absorption optical modulator using dual-graphene-on-graphene configuration. <b>2014, 22, 26173-80</b>                               | 64 |

|     |   |    |
|-----|---|----|
| 800 | Thin-film limit formalism applied to surface defect absorption. <b>2014</b> , 22, 31466-72  | 5  |
| 799 | Approaching total absorption at near infrared in a large area monolayer graphene by critical coupling. <b>2014</b> , 105, 181105  | 83 |
| 798 | Size-dependent hot-phonon dynamics in graphene flakes. <b>2014</b> , 104, 181907  | 4  |
| 797 | Microscopic description of intraband absorption in graphene: the occurrence of transient negative differential transmission. <b>2014</b> , 113, 035502                                      | 37 |
| 796 | Observing hot carrier distribution in an n-type epitaxial graphene on a SiC substrate. <b>2014</b> , 104, 161103  | 34 |
| 795 | Combined effect of stacking and magnetic field on plasmon excitations in bilayer graphene. <b>2014</b> , 89,  | 7  |
| 794 | Influence of localized surface plasmons on Pauli blocking and optical limiting in graphene under femtosecond pumping. <b>2014</b> , 116, 073101   | 19 |
| 793 | Direct Growth of Nanocrystalline Graphene/Graphite Transparent Electrodes on Si/SiO <sub>2</sub> for Metal-Free Schottky Junction Photodetectors. <b>2014</b> , 24, 835-840                 | 24 |
| 792 | All-Optical Blister Test of Suspended Graphene Using Micro-Raman Spectroscopy. <b>2014</b> , 2,   | 51 |
| 791 | Optical properties of magnetically doped ultrathin topological insulator slabs. <b>2014</b> , 90,   | 21 |
| 790 | Magneto-optics of general pseudospin-s two-dimensional Dirac-Weyl fermions. <b>2014</b> , 90,   | 27 |
| 789 | Friction force microscopy studies on SiO <sub>2</sub> supported pristine and hydrogenated graphene. <b>2014</b> , 104, 041910   | 24 |
| 788 | Surface diffusion coefficient of Au atoms on single layer graphene grown on Cu. <b>2014</b> , 115, 084304   | 15 |
| 787 | Toward epitaxially grown two-dimensional crystal hetero-structures: Single and double MoS <sub>2</sub> /graphene hetero-structures by chemical vapor depositions. <b>2014</b> , 105, 073501 | 35 |
| 786 | Direct growth of single-layer graphene on Ni surface manipulated by Si barrier. <b>2014</b> , 104, 213101   | 2  |
| 785 | Effect of defects on thermal conductivity of graphene. <b>2014</b> ,  | 1  |
| 784 | Field emission properties of chemical vapor deposited individual graphene. <b>2014</b> , 104, 093501  | 11 |
| 783 | Graphene on Crystalline Metal Surfaces. <b>2014</b> , 691-736   |    |

|     |   |    |
|-----|---|----|
| 782 | Systematic determination of absolute absorption cross-section of individual carbon nanotubes. <b>2014</b> , 111, 7564-9                           | 59 |
| 781 | Optical properties of graphene superlattices. <b>2014</b> , 26, 405304  | 5  |
| 780 | Optical properties of pure graphene in various forms: a time dependent density functional theory study. <b>2014</b> , 4, 50606-50613              | 18 |
| 779 | Efficient solution-processed small-molecule solar cells by insertion of graphene quantum dots. <b>2014</b> , 6, 15175-80                          | 23 |
| 778 | Electromagnetic Waves Reflectance of GrapheneMagnetic Semiconductor Superlattice in Magnetic Field. <b>2014</b> , 50, 1-4                         | 5  |
| 777 | Characterization of two-dimensional hexagonal boron nitride using scanning electron and scanning helium ion microscopy. <b>2014</b> , 104, 031607 | 17 |
| 776 | Effect of graphene on photoluminescence properties of graphene/GeSi quantum dot hybrid structures. <b>2014</b> , 105, 021104                      | 12 |
| 775 | A theoretical study of blue phosphorene nanoribbons based on first-principles calculations. <b>2014</b> , 116, 073704                             | 67 |
| 774 | Role of atomic vacancies and boundary conditions on ballistic thermal transport in graphene nanoribbons. <b>2014</b> , 90,                        | 20 |
| 773 | Wideband absorption in fibonacci quasi-periodic graphene-based hyperbolic metamaterials. <b>2014</b> , 16, 125108                                 | 26 |
| 772 | Controlling the direct growth of graphene on an insulating substrate by the solid phase reaction of a polymer layer. <b>2014</b> , 4, 38450-38454 | 9  |
| 771 | Pseudodiffusive conductance, quantum-limited shot noise, and Landau-level hierarchy in a biased graphene bilayer. <b>2014</b> , 89,               | 4  |
| 770 | Universal nonresonant absorption in carbon nanotubes. <b>2014</b> , 90,   | 5  |
| 769 | Quantum theory of third-harmonic generation in graphene. <b>2014</b> , 90,  | 48 |
| 768 | Optical absorption of twisted bilayer graphene with interlayer potential asymmetry. <b>2014</b> , 90,   | 27 |
| 767 | Fully transparent quantum dot light-emitting diode integrated with graphene anode and cathode. <b>2014</b> , 8, 12476-82                          | 59 |
| 766 | Planar hyperlens based on a modulated graphene monolayer. <b>2014</b> , 89,   | 37 |
| 765 | Dynamic optical properties in graphene: Length versus velocity gauge. <b>2014</b> , 115, 063503   | 8  |

|     |   |      |
|-----|---|------|
| 764 | Origin of mechanical modifications in poly (ether ether ketone)/carbon nanotube composite. <b>2014</b> , 115, 234901                | 5    |
| 763 | Prospective for graphene based thermal mid-infrared light emitting devices. <b>2014</b> , 4, 087139                                 | 25   |
| 762 | Tuning optical conductivity of large-scale CVD graphene by strain engineering. <b>2014</b> , 26, 1081-6                             | 74   |
| 761 | Two-dimensional material nanophotonics. <b>2014</b> , 8, 899-907  | 1805 |
| 760 | Enhancement of near-infrared absorption in graphene with metal gratings. <b>2014</b> , 105, 031905                                  | 159  |
| 759 | Formation and ultraslow propagation of infrared solitons in graphene under an external magnetic field. <b>2014</b> , 115, 234301    | 40   |
| 758 | Efficient modulation of 1.55 $\mu\text{m}$ radiation with gated graphene on a silicon microring resonator. <b>2014</b> , 14, 6811-5 | 113  |
| 757 | All-optical devices based on two-dimensional materials. <b>2020</b> , 69, 184216  | 6    |
| 756 | Mechanical Behavior at Graphene/Polymer Interfaces Under Biaxial Compression. <b>2020</b> , 51-66                                   |      |
| 755 | Introduction. <b>2020</b> , 1-23  |      |
| 754 | Conclusion and Outlook. <b>2020</b> , 237-245   |      |
| 753 | Introduction. <b>2020</b> , 3-12  |      |
| 752 | Introduction. <b>2020</b> , 1-26  |      |
| 751 | Electronic and Optical Properties of Graphene. <b>2020</b> , 51-70  | 1    |
| 750 | Radiative Properties of Nanomaterials. <b>2020</b> , 497-622  |      |
| 749 | Anisotropic Nanofillers in TPE. <b>2020</b> , 17-99   |      |
| 748 | Experimental Techniques, Instruments, and Cryostat. <b>2020</b> , 79-121  |      |
| 747 | Research progress of low-dimensional semiconductor materials in field of nonlinear optics. <b>2020</b> , 69, 184211                 | 3    |

- 746 Recent progresses and applications of terahertz metamaterials. 5
- 745 Environmental Sensitivity of Fabry-Perot Microcavities Induced by Layered Graphene-Dielectric Hybrid Coatings. **2021**, 16,
- 744 High-Accuracy and Broadband Wavelength Sensor with Detection Region Ranging from Deep Ultraviolet to Near Infrared Light. 2101735 0
- 743 Testing new graphene oxide-coated glazing for papyrus manuscripts in museums: Part I.
- 742 Roles of CuO and Cu<sub>2</sub>O in graphene growth on a copper substrate. **2021**, 576, 151812 3
- 741 The role of Cu crystallographic orientations towards growing superclean graphene on meter-sized scale. 1 0
- 740 Self-powered bifunctional sensor based on tribotronic planar graphene transistors. **2021**, 11, 21483 0
- 739 The Ripple Effect of Graphite Nanofilm on Stretchable Polydimethylsiloxane for Optical Sensing. **2021**, 11, 1
- 738 Oxygen Plasma Treatment of Rear Multilayered Graphene: A Potential Top Electrode for Transparent Organic Light-Emitting Diodes. **2021**, 14, 0
- 737 Roll-to-Roll Dry Transfer of Large-Scale Graphene. **2021**, e2106615 6
- 736 Performance prediction of graphene-based patch antenna using different ground plane dimensions. **2021**,
- 735 Recent Progress in the Transfer of Graphene Films and Nanostructures.. **2021**, 5, e2100771 3
- 734 Electrospinning of Graphene Oxide-Based Nanofibers for Supercapacitor Applications. **2021**, 367-383
- 733 Nanoscale structural and electrical properties of graphene grown on AlGaN by catalyst-free chemical vapor deposition. **2021**, 32, 015705 0
- 732 Integrated carbon nanotubes for novel liquid crystal displays. **2020**,
- 731 Multidimensional graphene nanostructures Synthesis and applications. **2020**, 92, 1929-1936 2
- 730 Effect of different superimposed structures on the transparent electromagnetic interference shielding performance of graphene. **2020**, 128, 185102 0
- 729 Hg adatoms on graphene: A first-principles study. **2020**, 4, 015002

|     |   |    |
|-----|---|----|
| 728 | Design and manipulation of heterojunction for graphene composite structure photoconductive photodetector. <b>2020</b> ,   |    |
| 727 | Atomistic insight into the significantly enhanced photovoltaic cells of monolayer GaTe <sub>2</sub> via two-dimensional van der Waals heterostructures engineering. <b>2020</b> ,       |    |
| 726 | Large-scale Growth of Quasifreestanding Graphene by using a Single-step Process. <b>2020</b> , 77, 768-772  | 0  |
| 725 | Role of E-Government and Open Data to Enhance Transparency Practices. <b>2020</b> , 47-54   |    |
| 724 | Engineering photonic environments for two-dimensional materials. <b>2021</b> , 10, 1031-1058  | 5  |
| 723 | The application of graphene-based biomaterials in biomedicine. <b>2019</b> , 11, 3246-3260  | 14 |
| 722 | Graphene and Carbon Nanotubes for Electronics Nanopackaging. <b>2021</b> , 1-1  | 5  |
| 721 | Liquid-phase catalytic growth of graphene.  | 1  |
| 720 | Asymmetric janus functionalities induced changes in structural, electronic, optical characteristics of MXenes Ta <sub>4</sub> C <sub>3</sub> T <sub>x</sub> . <b>2022</b> , 341, 114585 |    |
| 719 | Solution combustion synthesis of rGO-Fe <sub>2</sub> O <sub>3</sub> hybrid nanofiller for linseed oil based eco-friendly anticorrosion coating. <b>2022</b> , 633, 127863               | 0  |
| 718 | A comparative study of different types of sandwiched structures of SPR biosensor for sensitive detection of ssDNA. <b>2022</b> , 48, 100984   | 5  |
| 717 | Photocurrent generation in graphene/h-BN heterostructures under solar illumination. <b>2022</b> , 276, 115540   |    |
| 716 | Scalable massive production of defect-free few-layer graphene by ball-milling in series with shearing exfoliation in supercritical CO <sub>2</sub> . <b>2022</b> , 181, 105496          | 2  |
| 715 | Graphene-enabled wearable sensors for healthcare monitoring. <b>2022</b> , 197, 113777  | 14 |
| 714 | A tunable and compact footprint plasmonic metasurface integrated graphene photodetector using modified omega-shaped nanoantennas. <b>2022</b> , 147, 107660                             | 0  |
| 713 | Using critical coupling to achieve monolayer graphene perfect absorber with high-sensitivity and polarization-independence. <b>2022</b> , 137, 115069                                   | 1  |
| 712 | First-principles calculations of optical properties of 2D CaFBr and BaFBr monolayers. <b>2022</b> , 137, 115074   | 2  |
| 711 | Improving graphene/4H-SiC/graphene MSM UV photodetector sensitivity using interdigitated electrodes formalism and embedded gold plasmonic nanoparticles. <b>2022</b> , 148, 107683      | 0  |

|     |   |   |
|-----|---|---|
| 710 | Two-dimensional materials toward Terahertz optoelectronic device applications. <b>2021</b> , 51, 100473   | 5 |
| 709 | MXene-Based Materials for Solar Cell Applications.. <b>2021</b> , 11,   | 4 |
| 708 | Transfer-free graphene-guided high-quality epitaxy of AlN film for deep ultraviolet light-emitting diodes. <b>2021</b> , 130, 193103                                  | 2 |
| 707 | Optical conductivity signatures of open Dirac nodal lines. <b>2021</b> , 104,   | 0 |
| 706 | Graphene Family Nanomaterials (GFN)-TiO for the Photocatalytic Removal of Water and Air Pollutants: Synthesis, Characterization, and Applications.. <b>2021</b> , 11, | 1 |
| 705 | Conformal Graphene Directly Synthesized on a Femtosecond Laser-Scribed In-Fiber Microstructure for High-Energy Ultrafast Optical Pulses. <b>2021</b> ,                | 0 |
| 704 | Quantitative Determination of Contradictory Bandgap Values of Bulk PdSe <sub>2</sub> from Electrical Transport Properties. 2108061                                    | 2 |
| 703 | The Fine-Structure Constant as a Ruler for the Band-Edge Light Absorption Strength of Bulk and Quantum-Confined Semiconductors. <b>2021</b> , 21, 9426-9432           |   |
| 702 | Enhanced Faraday rotation and control of pure spin-valley optical conductivity by topological phase in silicene. <b>2021</b> , 137, 115011                            | 0 |
| 701 | Mid-infrared photonics and optoelectronics in 2D materials. <b>2021</b> ,   | 3 |
| 700 | Numerical Study of Graphene/Au/SiC Waveguide-Based Surface Plasmon Resonance Sensor. <b>2021</b> , 11,  | 1 |
| 699 | High resolution graphene angle sensor based on ultra-narrowband optical perfect absorption. <b>2021</b> , 29, 41206   | 2 |
| 698 | Controllable growth of two-dimensional materials on noble metal substrates.. <b>2021</b> , 24, 103432   | 2 |
| 697 | High sensitivity UV photodetectors based on low-cost TiOP25-graphene hybrids. <b>2021</b> , 33,   |   |
| 696 | Effect of graphene domains orientation on quasi van der Waals epitaxy of GaN. <b>2021</b> , 130, 185304   | 0 |
| 695 | Gamma-ray Spectroscopy Using Inorganic Scintillator Coated with Reduced Graphene Oxide in Fiber-Optic Radiation Sensor. <b>2021</b> , 8, 543                          | 0 |
| 694 | Photoelectromagnetic Effect Induced by Terahertz Laser Radiation in Topological Crystalline Insulators PbSnTe.. <b>2021</b> , 11,                                     | 1 |
| 693 | High-Yield Production of Selected 2D Materials by Understanding Their Sonication-Assisted Liquid-Phase Exfoliation.. <b>2021</b> , 11,                                | 2 |



|     |  |   |
|-----|--|---|
| 692 | Self-assembly, stability, and photoresponse of PbS quantum dot films capped with mixed halide perovskite ligands. <b>2021</b> , 147, 111648                                      | 2 |
| 691 | First-principles study on methane storage properties of porous graphene modified with Mn. <b>2021</b> , 127, 1   | 0 |
| 690 | Light-matter interactions enhanced by quasi-bound states in the continuum in a graphene-dielectric metasurface. <b>2021</b> , 29, 40177-40186                                    | 6 |
| 689 | Alkyl-Amino Functionalized Reduced-Graphene-OxideHeptadecan-9-amine-Based Spin-Coated Microsupercapacitors for On-Chip Low Power Electronics. 2100304                            |   |
| 688 | Investigations of thermal and mechanical properties of graphene-silver nanocomposites: a molecular dynamics study. 1-9   |   |
| 687 | Bandwidth-tunable near-infrared perfect absorption of graphene in a compound grating waveguide structure supporting quasi-bound states in the continuum. <b>2021</b> , 29, 41975 | 5 |
| 686 | Electrochemical sensors for sulfamethoxazole detection based on graphene oxide/graphene layered composite on indium tin oxide substrate. <b>2021</b> , 104155                    | 2 |
| 685 | Photoelectrical properties of integrated photodetectors based on bilayer graphene quantum dots with asymmetric metal contacts: a NEGF-DFT study.. <b>2021</b> ,                  | 0 |
| 684 | Advanced Applications of Carbon Nanotubes in Engineering Technologies. <b>2021</b> , 1-38  |   |
| 683 | Hybrid Graphene-perovskite Quantum Dot Photodetectors with Solar-blind UV and Visible Light Response. <b>2021</b> , 1-1  | 2 |
| 682 | The tailored saturated-unsaturateddefect modes obtained by nonlinear threshold light in graphene-based hyperbolicmetamaterial. <b>2021</b> , 1-1                                 |   |
| 681 | Liquid phase exfoliation of hafnium diselenide and its role in initiating the mode-locked pulse laser at eye-safe wavelength region. <b>2022</b> , 123, 111933                   | 1 |
| 680 | Probing Light-Stimulated Activities in the Retina via Transparent Graphene Electrodes.. <b>2022</b> , 5, 305-312   | 0 |
| 679 | Research of an optical device based on an anisotropic epsilon-near-zero metamaterial. <b>2022</b> , 54, 1  |   |
| 678 | Reflection Characteristics of Airy Beams Impinging on Graphene-Substrate Surfaces. <b>2022</b> , 2022, 1-10  |   |
| 677 | Dual-wavelength mode-locked fiber laser based on graphene materials. 1   | 0 |
| 676 | Two-Dimensional Stacked Composites of Self-Assembled Alkane Layers and Graphene for Transparent Gas Barrier Films with Low Permeability.. <b>2022</b> ,                          | 1 |
| 675 | Hybrid graphene-NiW nanofiber transparent electrodes for all-nanofiber-based pressure sensor. <b>2022</b> , 57, 2627   |   |

- 674 Aperiodic perforated graphene in optical nanocavity absorbers. **2022**, 276, 115557 1
- 673 Graphene-Based Magnetically Tunable Broadband Terahertz Absorber. **2022**, 14, 1-6
- 672 TPP-assisted multi-band absorption enhancement in graphene based on Fibonacci quasiperiodic photonic crystal. **2022**, 33, 105210 1
- 671 The effect of quasi-free graphene layer on the electrical transport properties of sandwich-like graphene / Co nanoparticles / graphene structure. **2022**, 579, 152119
- 670 Phonon-assisted Interfacial Charge Transfer Excitons in Graphene/h-BN van der Waals Heterostructures. **2022**, 76, 110-120 1
- 669 Polarization-independent electro-absorption optical modulator based on trapezoid polymer-graphene waveguide. **2022**, 149, 107815 2
- 668 Graphene for Flexible Photovoltaic Devices. 6,
- 667 Terahertz physics of graphene: from linear conductivity to high-harmonics generation. **2020**,
- 666 Electronic States of Electrochemically Doped Single-Layer Graphene Probed through Fano Resonance Effects in Raman Scattering. **2020**, 124, 26428-26433 2
- 665 Ultrafast carrier dynamics in graphene and graphene nanostructures. **2020**, 13, 135-148
- 664 Thermal stability of C-F/C(F) bonds in fluorinated graphene detected by heating infrared spectroscopy. **2021**, 23, 26853-26863 0
- 663 Optical and Electrical Properties of Graphene, Few Layer Graphene, and Boron Nitride. **2021**, 229-294
- 662 Confined Synthesis and Interlayer Enhanced Raman Scattering of Patterned Graphene Ribbons Arrays.
- 661 Patent Data Analysis of Graphene Material Testing Technology. **2021**, 11, 1317-1330
- 660 CVD-Graphene-Based Optically Transparent Antennas. **2021**, 72, 433-438
- 659 Study of Electrical Conductivity of Pyrrole-Reduced Graphene Oxide Pellet. **2021**,
- 658 Prospects for Using Graphene Nanomaterials: Sorbents, Membranes, and Gas Sensors. **2021**, 94, 1177-1188 0
- 657 All-Graphene-Contact Electrically Pumped On-Demand Transferrable Nanowire Source.. **2022**, 3

|     |   |    |
|-----|---|----|
| 656 | A Study of Improved Bimetallic GrapheneBased Fiber Optic Surface Plasmon Resonance (FOSPR) Biosensor. 1   | 0  |
| 655 | Chemi-Inspired Silicon Allotropes-Experimentally Accessible Si Cages as Proposed Building Block for 1D Polymers, 2D Sheets, Single-Walled Nanotubes, and Nanoparticles.. 2022, 27,      | 1  |
| 654 | High-Performance 3D Vertically Oriented Graphene Photodetector Using a Floating Indium Tin Oxide Channel.. 2022, 22,  | 1  |
| 653 | Preparation and Bolometric Responses of MoS Nanoflowers and Multi-Walled Carbon Nanotube Composite Network.. 2022, 12,  | 3  |
| 652 | Laser processing of graphene and related materials for energy storage: State of the art and future prospects. 2022, 100981  | 19 |
| 651 | Examining the optical model of graphene via the photonic spin Hall effect.. 2022, 47, 846-849   | 1  |
| 650 | The Light Absorption Enhancement in Graphene Monolayer Resulting from the Diffraction Coupling of Surface Plasmon Polariton Resonance.. 2022, 12,                                       | 3  |
| 649 | Investigating the thermal transport in gold decorated graphene by Opto-thermal Raman technique.. 2021,  | 0  |
| 648 | Wetting Stability of Supported Graphene in Ambient Environment. 2101283   |    |
| 647 | Universality of optical absorptance quantization in two-dimensional group-IV, III-V, II-VI, and IV-VI semiconductors. 2022, 105,  | 0  |
| 646 | Functionalization and exfoliation of graphite with low temperature pulse plasma in distilled water.. 2022,  | 1  |
| 645 | Residue-Free Suspended Graphene Transferred by Perforated Template.. 2021,  | 1  |
| 644 | Optical Pumping and Electrical Injection of a 3.6 $\mu\text{m}$ Interband Cascade Laser. 2022, 58, 1-8  |    |
| 643 | Controllable direct growth and patterning of graphene based transparent and conductive films on insulating substrates via Cu nanoparticles assisted-catalysis method. 2022, 123, 108868 | 0  |
| 642 | Fabrication Technologies for the On-Chip Integration of 2D Materials.. 2022, e2101435   | 8  |
| 641 | Optical and mechanical properties of MXenes. 2022, 131-169  | 1  |
| 640 | Characterization of epitaxial CVD graphene on Ir(111)/ $\text{Al}_2\text{O}_3(0001)$ by photoelectron momentum microscopy.  | 1  |
| 639 | The Performance of Graphene-Enhanced THz Grating: Impact of the Gold Layer Imperfectness.. 2022, 15,  |    |

- 638 Hybrid combination of waste plastics and graphene for high-performance sustainable roads. **2022**, 179-215
- 637 Localized Spectroelectrochemical Identification of Basal Plane and Defect-Related Charge-Transfer Processes in Graphene.. **2022**, 13, 642-648 2
- 636 Controllable assembly of continuous hollow graphene fibers with robust mechanical performance and multifunctionalities.. **2022**, 1
- 635 Characteristics, properties, synthesis and advanced applications of 2D graphdiyne versus graphene. 2
- 634 Synthesis and electrocatalytic performance of ultrathin noble metal nanosheets.
- 633 Graphene as a Piezoresistive Material in Strain Sensing Applications.. **2022**, 13, 3
- 632 3D Printed Template-Directed Assembly of Multiscale Graphene Structures. 2105879 3
- 631 Engineering sensitivity and spectral range of photodetection in van der Waals materials and hybrids. **2022**, 3, 014001 1
- 630 Conversion of antibacterial activity of graphene-coated textiles through surface polarity.
- 629 Intrinsic-trap-regulating growth of clean graphene on high-entropy alloy substrate. 1 0
- 628 Tracking photocarrier-enhanced electron-phonon coupling in nonequilibrium. **2022**, 7, 1
- 627 Phononic linear and quadratic nodal points in monolayer XH (X=Si, Ge, Sn).. **2022**, 0
- 626 Graphene oxide based semiconducting nanomaterials composites for environmental applications. **2022**, 407-431
- 625 Graphene-based Opto-thermoelectric Tweezers.. **2021**, e2107691 1
- 624 Research Progress of Graphene Nano-Electromechanical Resonant Sensors-A Review.. **2022**, 13,
- 623 Performance enhancement of graphene/Ge near-infrared photodetector by modulating the doping level of graphene. **2022**, 7, 026101 1
- 622 The Sensitive Optical pH Sensor Based on the Complex of Nanosheet and Carbon Dots. **2022**, 7,
- 621 Dual-Emitter Graphene Glass Fiber Fabric for Radiant Heating.. **2022**, 7

|     |  |    |
|-----|--|----|
| 620 | Bi <sub>2</sub> Te <sub>3</sub> /Graphene Heterostructure as the Saturable Absorber for ~1.0 fs Passively Q-switched Solid State Pulsed Laser. <b>2022</b> , 12, 222             | 1  |
| 619 | Ab-initio study of structural stability, electronic and optical properties of X <sub>2</sub> GeSe (X = P and Sb) monolayers. <b>2022</b> , 343, 114673                           | 0  |
| 618 | Plasmonic nanostructure integrated two-dimensional materials for optoelectronic devices.   | 1  |
| 617 | Cu ions irradiation-induced defects in graphene and their effects on optical properties. <b>2022</b> , 193, 110008   |    |
| 616 | Heat dissipation of underlying multilayered graphene layers grown on CuNi alloys for high-performance interconnects. <b>2022</b> , 583, 152506                                   |    |
| 615 | Copper-phthalocyanine (CuPc) and O, Li and Mn adatoms on graphene substrate: First-principles study of stability, magnetism and electronic properties. <b>2022</b> , 719, 122023 |    |
| 614 | Chapter 1. Recent Developments and Perspectives on Solar-driven Fine Chemicals Synthesis: From the Reaction System to 2D Photocatalysts. <b>2022</b> , 1-64                      |    |
| 613 | Chapter 3. Photocatalysis by Graphenes. <b>2022</b> , 150-169  |    |
| 612 | 2D Heterostructures for Ubiquitous Electronics and Optoelectronics: Principles, Opportunities, and Challenges.. <b>2022</b> ,  | 28 |
| 611 | Broadband Graphene Modulator with High Modulation Depth Based on Tip Plasmonic Waveguide. <b>2022</b> , 168696   |    |
| 610 | Graphene-based materials: analysis through calorimetric techniques. 1  | 1  |
| 609 | Sulfur-Doped Graphene as a Rational Anode for an Ionic Liquid Based Hybrid Capacitor with a 3.5 V Working Window.  | 1  |
| 608 | Flexible frequency-selective absorber based on metal-graphene hybrid metamaterial.. <b>2022</b> , 30, 6566-6576  | 3  |
| 607 | Two-dimensional Material based Printed Photonics: A Review.  | 1  |
| 606 | Folding and Fracture of Single Crystal Graphene Grown on a Cu(111) Foil.. <b>2022</b> , e2110509   | 0  |
| 605 | Enhancement of graphene-related and substrate-related Raman modes through dielectric layer deposition. <b>2022</b> , 120, 063105   | 3  |
| 604 | The impact of smart materials, digital twins (DTs) and Internet of things (IoT) in an industry 4.0 integrated automation industry. <b>2022</b> ,                                 | 2  |
| 603 | Broadband terahertz metamaterial absorber and modulator based on hybrid graphene-gold pattern. <b>2022</b> , 140, 115142   | 1  |

- 602 Evidence of Decreased Optical Absorption of Chemical Vapor Deposition Graphene Multilayers Deposited on Semiconductor Structures.
- 601 Single-Layer-Graphene-Coated and Gold-Film-Based Surface Plasmon Resonance Prism Coupler Sensor for Immunoglobulin G Detection.. **2022**, 22, 2
- 600 Highly optically transparent graphene mesh for electromagnetic interference shielding. **2022**, 123, 108849 1
- 599 Graphene-based passive Q-switching of a Dy<sup>3+</sup>,Tb<sup>3+</sup>:LuLiF<sub>4</sub> yellow laser. **2022**, 125, 112067 1
- 598 Superlinear Photogalvanic Effects in (Bi<sub>0.3</sub>Sb<sub>0.7</sub>)<sub>2</sub>(Te<sub>0.1</sub>Se<sub>0.9</sub>)<sub>3</sub>: Probing Three-Dimensional Topological Insulator Surface States at Room Temperature. **2021**, 16, 1
- 597 Graphene: A Multifunctional Nanomaterial with Versatile Applications. **2021**, 2021, 1-8 3
- 596 Preparation and Properties of Cu/Rgo Composites Via H<sub>2</sub> Reduction and Spark Plasma Sintering.
- 595 Backgated Graphene Varactors with Quality Factor -Frequency Product Above 300 GHz. **2022**, 1-1
- 594 GaN LEDs with in situ Synthesized Transparent Graphene Heat-Spreading Electrodes Fabricated by PECVD and Penetration Etching. 1
- 593 Monolayer MoS<sub>2</sub>/n-Si Heterostructure Schottky Solar Cell. **2022**, 10, 1979-1988 0
- 592 Atomic-level investigation on the oxidation efficiency and corrosion resistance of lithium enhanced by the addition of two dimensional materials.. **2022**, 12, 5458-5465
- 591 Evolution of graphene oxide (GO)-based nanohybrid materials with diverse compositions: an overview.. **2022**, 12, 5686-5719 1
- 590 Introduction. **2022**, 1-9
- 589 Carbon nanomaterials: Application as sensors for diagnostics. **2022**, 211-248
- 588 Biomedical applications of metal oxide/carbon composites. **2022**, 371-405 0
- 587 Iron fortification of food crops through nanofertilisation. **2022**, 0
- 586 Classification of nanomaterials and their physical and chemical nature. **2022**, 7-34
- 585 Electrically Tunable Nonequilibrium Optical Response of Graphene.. **2022**, 4

|     |   |   |
|-----|---|---|
| 584 | Photochromic Semiconductive Hydrogen-Bonded Organic Framework (HOF) with Broadband Absorption.. <b>2022</b> ,                                       | 4 |
| 583 | Controllable Growth of Graphene Photonic Crystal Fibers with Tunable Optical Nonlinearity. <b>2022</b> , 9, 961-968                                 | 0 |
| 582 | Progress on Optical Fiber Biochemical Sensors Based on Graphene.. <b>2022</b> , 13,   | 0 |
| 581 | High-Speed and On-Chip Optical Switch Based on a Graphene Microheater.. <b>2022</b> ,   | 0 |
| 580 | Disentangling surface atomic motions from surface field effects in ultrafast low-energy electron diffraction. <b>2022</b> , 3,                      |   |
| 579 | Robustness of large-area suspended graphene under interaction with intense laser.. <b>2022</b> , 12, 2346   | 4 |
| 578 | Photodetection Tuning with High Absorptivity Using Stacked 2D Heterostructure Films.. <b>2022</b> , 12,   | 1 |
| 577 | Design and Fabrication of a Graphene/Polyvinylidene Fluoride Nanocomposite-Based Airflow Sensor.. <b>2022</b> , 7, 7981-7988                        | 3 |
| 576 | Graphene nanocomposites and applications in electrochemical energy storage materials. <b>2022</b> ,   |   |
| 575 | Bandgap Modulation of the C<sub>2</sub>N-h2D Nanomaterials under Elastic Strains. 34, 71-76   |   |
| 574 | Dynamic Light Control Using Bionic Dielectric Elastomer Iris Actuators. 2112260   | 1 |
| 573 | Enhanced Photogating Effect in Graphene Photodetectors Potential Fluctuation Engineering.. <b>2022</b> ,  | 7 |
| 572 | Covalent polymer functionalization of graphene/graphene oxide and its application as anticorrosion materials.                                       | 1 |
| 571 | Quantitative Estimation of p- and n-Doping Effects on Electrophysical and Optical Properties of CVD Graphene. <b>2022</b> , 126, 4620-4629          |   |
| 570 | Growth and Characterization of Graphene Layers on Different Kinds of Copper Surfaces.. <b>2022</b> , 27,  | 0 |
| 569 | Integrated Strain Sensors with Stretchable Vertical Graphene Networks for Non-invasive Physiological Assessment. <b>2022</b> , 4, 964-973           | 2 |
| 568 | 2D Heterostructures for Highly Efficient Photodetectors: From Advanced Synthesis to Characterizations, Mechanisms, and Device Applications. 2100342 | 3 |
| 567 | Spectral Dependence of the Energy Transfer from Photosynthetic Complexes to Monolayer Graphene.. <b>2022</b> , 23,                                  | 0 |

|     |   |   |
|-----|---|---|
| 566 | 2D Materials for Wearable Energy Harvesting. 2101623  | 1 |
| 565 | Tunable Plasmon-Induced Transparency Based on Dirac Semimetals. 1   | 0 |
| 564 | Graphene as a Transparent Conductive Electrode in GaN-Based LEDs.. 2022, 15,  | 1 |
| 563 | Chemical Reduction of GO: Comparing Hydroiodic Acid and Sodium Borohydride Chemical Approaches by X-ray Photoelectron Spectroscopy. 2022, 8, 20   |   |
| 562 | Thermionic graphene/silicon Schottky infrared photodetectors. 2022, 105,  | 3 |
| 561 | Synthesis of transition metal dichalcogenide van der Waals heterostructures through chemical vapor deposition.. 2022,   | 0 |
| 560 | Carbon-Based Fibers: Fabrication, Characterization and Application. 1   | 4 |
| 559 | The promising solar-powered water purification based on graphene functional architectures.  | 1 |
| 558 | Dimensionality-Dependent MoS <sub>2</sub> toward Efficient Photocatalytic Hydrogen Evolution: From Synthesis to Modifications in Doping, Surface and Heterojunction Engineering. 2022, 100191 | 0 |
| 557 | A Study on Graphene Structure Control Using Ammonia Gas for a Highly Sensitive Pressure Sensor. 2022, 60, 206-212   | 0 |
| 556 | Effect of graphene filler on mechanical properties of cotton/viscose hybrid composite. 2022, 53, 298-307  |   |
| 555 | A point-like thermal light source as a probe for sensing light-matter interaction.. 2022, 12, 4881  | 0 |
| 554 | Revealing room temperature ferromagnetism in exfoliated Fe <sub>5</sub> GeTe <sub>2</sub> flakes with quantum magnetic imaging. 2022, 9, 025017   | 3 |
| 553 | Ultrafast photonics applications of emerging 2D-Xenes beyond graphene. 2022, 11, 1261-1284  | 5 |
| 552 | Current generation from graphene vibrations. 2022, 1234, 012030   |   |
| 551 | Reduced graphene oxide/carbon black thin-film mid-infrared photodetector. 2022,   |   |
| 550 | Room-Temperature Fiber Tip Nanoscale Optomechanical Bolometer.  | 2 |
| 549 | Recent Applications and Synthesis Techniques of Graphene. 2022, 14,   | 1 |



|     |  |   |
|-----|--|---|
| 548 | Graphene Oxide and Biomolecules for the Production of Functional 3D Graphene-Based Materials.. <b>2022</b> , 9, 774097   | 1 |
| 547 | A comprehensive review on the thermal, electrical, and mechanical properties of graphene-based multi-functional epoxy composites. 1                              | 4 |
| 546 | High Proton Conductivity of 3D Graphene Oxide Intercalated with Aromatic Sulfonic Acids.. <b>2022</b> , 87, e202200003   | 1 |
| 545 | Graphene aerogel and its composites: synthesis, properties and applications. 1   | 0 |
| 544 | Recent advances in aluminium matrix composites reinforced with graphene-based nanomaterial: A critical review. <b>2022</b> , 100948                              | 2 |
| 543 | Multimode absorption in single-layer graphene: Disordered photonics and magneto-optic effect. <b>2022</b> , 126, 112172  | 1 |
| 542 | High-Temperature Copper Graphene Conductors via Aerosol Jetting. 2200284   | 1 |
| 541 | Modified UNet++ with attention gate for graphene identification by optical microscopy. <b>2022</b> ,   | 2 |
| 540 | Graphene Nanopores in Broadband Wide-Angle Optical Cavity Resonance Absorbers. <b>2022</b> , 101956  | 1 |
| 539 | Facilitating Hot Electron Injection from Graphene to Semiconductor by Rectifying Contact for Vis-NIR-Driven H <sub>2</sub> O Production.. <b>2022</b> , e2200885 | 0 |
| 538 | Optically Transparent Broadband Microwave Absorber by Graphene and Metallic Rings.. <b>2022</b> ,  | 3 |
| 537 | Theoretical methods for excitonic physics in two-dimensional materials.  | 0 |
| 536 | Enhanced Ferroelectric and Piezoelectric Properties in Graphene-Electroded Pb(Zr,Ti)O Thin Films.. <b>2022</b> ,   | 0 |
| 535 | Dynamical polarization, optical conductivity and plasmon mode of a linear triple component fermionic system.. <b>2022</b> ,                                      | 0 |
| 534 | 10.6 fs saturable absorption and optical isolation of graphene. <b>2022</b> , 122, 104080  |   |
| 533 | A review on Graphene/GNPs/GO modified asphalt. <b>2022</b> , 330, 127222   | 2 |
| 532 | Confined synthesis and interlayer coupling of patterned graphene ribbons arrays. <b>2022</b> , 191, 571-580  |   |
| 531 | In situ intracellular Raman spectroscopic detection with graphene-based thermoelectric optical tweezers. <b>2022</b> , 361, 131722                               | 0 |

|     |  |    |
|-----|--|----|
| 530 | Microfabrication of sealable microcell array with ultrathin metal-graphene membrane. <b>2022</b> , 15, 100120  |    |
| 529 | Unrecovered ion-irradiated damage after thermal annealing in graphene field effect transistors. <b>2022</b> , 588, 153005  | 0  |
| 528 | Light-induced modification of the Schottky barrier height in graphene/Si based near-infrared photodiodes. <b>2022</b> , 123, 104165  |    |
| 527 | Enhancing light absorption of graphene with dual quasi bound states in the continuum resonances. <b>2022</b> , 283, 108150   | 1  |
| 526 | Megahertz ultrasonic source induced by femtosecond laser irradiation of graphene foam. <b>2022</b> , 151, 108077   |    |
| 525 | Nonlinear photoresponse of high damage threshold titanium disulfide nanocrystals for Q-switched pulse generation. <b>2022</b> , 151, 107988  | 10 |
| 524 | Laser driven coherent white emission of graphene bulb. <b>2022</b> , 514, 128140   | 1  |
| 523 | Manufacturing heterojunction based on 2D materials for artificial neural network construction. <b>2021</b> ,   |    |
| 522 | First-Principles Density Functional Theory Study of Modified Germanene-Based Electrode Materials.. <b>2021</b> , 15,   | 0  |
| 521 | A review of terahertz phase modulation from free space to guided wave integrated devices. <b>2022</b> , 11, 415-437  | 5  |
| 520 | Tunable topology and berry curvature dipole in transition metal dichalcogenide Janus monolayers. <b>2021</b> , 8, 124001   | 0  |
| 519 | In silico study of sensitivity of polymeric prism-based surface plasmon resonance sensors based on graphene and molybdenum disulfide layers. <b>2021</b> ,                             | 1  |
| 518 | An artificial optoelectronic nociceptor based on In <sub>2</sub> S <sub>3</sub> memristor. <b>2022</b> , 55, 125401  | 2  |
| 517 | Plasmonic 2D Materials: Overview, Advancements, Future Prospects and Functional Applications.  | 1  |
| 516 | Corrosion Resistance of Ultrathin Two-Dimensional Coatings: First-Principles Calculations towards In-Depth Mechanism Understanding and Precise Material Design. <b>2021</b> , 11, 2011 | 1  |
| 515 | Fabrication of Suspended PMMA-Graphene Membrane for High Sensitivity LC-MEMS Pressure Sensor.. <b>2021</b> , 11,   | 2  |
| 514 | Design of MgO-doped-LiNbO <sub>3</sub> Based Temperature Tunable Dual-narrowband Absorber. <b>2021</b> ,   | 0  |
| 513 | Simulation Study of In-Phase and Out-Phase Enhanced Absorption of Graphene Based on Parity-Time Symmetry One-Dimensional Photonic Crystal Structure. <b>2021</b> , 11, 1513            | 1  |

|     |  |    |
|-----|--|----|
| 512 | MXene: Evolutions in Chemical Synthesis and Recent Advances in Applications. <b>2022</b> , 5, 1-36   | 4  |
| 511 | Graphene nanostructures for input-output bioelectronics.. <b>2021</b> , 2, 041304  | 1  |
| 510 | Effects of laser processing parameters on properties of laser-induced graphene by irradiating CO2 laser on polyimide. <b>2022</b> , 65, 41   | 1  |
| 509 | Wafer-Scale Graphene Anodes Replace Indium Tin Oxide in Organic Light-Emitting Diodes. <b>2022</b> , 10, 2101675   | 1  |
| 508 | Transparent and High-Absolute-Effectiveness Electromagnetic Interference Shielding Film Based on Single-Crystal Graphene. 2101465  | 1  |
| 507 | Effect of Sonication of GO in Acetone for the Fabrication of RGO Powder and Thin Film. <b>2022</b> , 97-103  |    |
| 506 | Collective magnetic excitations in AA- and AB-stacked graphene bilayers. <b>2021</b> , 104,  | 1  |
| 505 | Transparent graphene electrodes based hybrid perovskites photodetectors with broad spectral response from UV-visible to near-infrared. <b>2021</b> , 33,                                       | 1  |
| 504 | Wafer-Scale Two-Dimensional Molybdenum Diselenide Phototransistor Array via Liquid-Precursor-Assisted Chemical Vapor Deposition. <b>2022</b> , 10, 2101492                                     | 0  |
| 503 | Theoretical research on a late-model multistage refractive index sensor based on photonic spin Hall effect. 1-15   |    |
| 502 | Infrared Photodetectors Based on 2D Materials and Nanophotonics. 2111970   | 14 |
| 501 | SYNTHESIS AND CHARACTERIZATION OF GRAPHENE SHEETS DECORATED WITH CARBON BLACK BY DIRECT PYROLYSIS OF A MOLASSES-CARBON BLACK MIXTURE AS A POTENTIAL VERSATILE FILLER FOR RUBBER. <b>2021</b> , | 0  |
| 500 | High-Performance Flexible Photodetector with Two-Dimensional Graphene Heterostructure. <b>2022</b> , 511-517   |    |
| 499 | Two-Dimensional Field-Effect Transistor Sensors: The Road toward Commercialization.. <b>2022</b> ,   | 9  |
| 498 | High-performance photodetectors based on Schottky junctions formed by vertical 2D-3D-2D graphene sandwich nanocavity and germanium substrate. <b>2022</b> , 109043                             |    |
| 497 | Review of recent progress, challenges, and prospects of 2D materials-based short wavelength infrared photodetectors..  | 0  |
| 496 | Graphene/Ge microcrystal photodetectors with enhanced infrared responsivity. <b>2022</b> , 7, 046106   | 0  |
| 495 | A Multi-Layered Borophene-Silica-Silver Based Refractive Index Sensor for Biosensing Applications Operated at the Infrared Frequency Spectrum. <b>2022</b> , 9, 279                            |    |

- 494 Dual-channel tunable near-infrared absorption enhancement with graphene induced by coupled modes of topological interface states. 1
- 493 Ultrafast Transient Absorption Spectroscopy of Inkjet-Printed Graphene and Aerosol Gel Graphene Films: Effect of Oxygen and Morphology on Carrier Relaxation Dynamics. 0
- 492 Grafting Ink for Direct Writing: Solvation Activated Covalent Functionalization of Graphene.. **2022**, e2105017 0
- 491 2D materials-enabled optical modulators: From visible to terahertz spectral range. **2022**, 9, 021302 2
- 490 Presentation\_1.pdf. **2019**,
- 489 Metal oxide nanoparticles toxicity testing on terrestrial plants. **2022**, 317-331
- 488 Graphene-empowered dynamic metasurfaces and metadevices. **2022**, 5, 200098-200098 7
- 487 Signatures of Transient Purely Ballistic Heat Conduction: Theory and Experimental Investigation. **2022**, 613-632
- 486 Thermal Radiation of Graphene. **2022**, 130, 18-22
- 485 Layered selenophosphate HgPSe<sub>3</sub> single crystal: a new candidate for X-ray to visible light photodetectors. 0
- 484 Highly sensitive filterless near-infrared wavelength sensor with two self-driven MLG/Ge heterojunctions.
- 483 Synthesis and Transport Analysis of Turbostratic Multilayer Graphene. **2022**, 149-180
- 482 Electronic, Optical, and Elastic Properties of CaF<sub>2</sub> Monolayer and Acoustic Phonon Dispersion at Hypersonic Frequencies Using Density Functional Theory and beyond with Random Phase Approximation and Bethe-Salpeter Equation.. **2022**, 7, 15338-15349 0
- 481 Recent advances in graphene-based polymer composite scaffolds for bone/cartilage tissue engineering. **2022**, 103360 1
- 480 Direct Plasma-Enhanced-Chemical-Vapor-Deposition Syntheses of Vertically Oriented Graphene Films on Functional Insulating Substrates for Wide-Range Applications. 2202026 0
- 479 Engineering of Chemical Vapor Deposition Graphene Layers: Growth, Characterization, and Properties. 2202584 1
- 478 Engineering Plasmonic Environments for 2D Materials and 2D-Based Photodetectors.. **2022**, 27, 1
- 477 Studying wearing resistance of graphene-based materials for the project of the first in the world probe microscope [Earth satellite by solar wind plasma emulation. **2022**, 2256, 012001 1

|     |   |   |
|-----|---|---|
| 476 | Quantum transport on honeycomb networks.. <b>2022</b> , 12, 6896  | 1 |
| 475 | A Submicrosecond-Response Ultraviolet-Visible-Near-Infrared Broadband Photodetector Based on 2D Tellurosilicate InSiTe.. <b>2022</b> ,  | 4 |
| 474 | A Review of the Synthesis, Properties, and Applications of 2D Materials. 2200031  | 9 |
| 473 | A Selective Electrochemical Sensor Based on Titanium Dioxide-Reduced Graphene Oxide Nanocomposite (TiO <sub>2</sub> - RGO/GCE) for the Efficient Determination of Nitrite. 1-12         |   |
| 472 | The Rise of Graphene Photonic Crystal Fibers. 2202282   |   |
| 471 | A Methodical Review on Carbon-Based Nanomaterials in Energy-Related Applications. <b>2022</b> , 2022, 1-21  | 3 |
| 470 | The Graphene Structure's Effects on the Current-Voltage and Photovoltaic Characteristics of Directly Synthesized Graphene/n-Si(100) Diodes. <b>2022</b> , 12, 1640                      | 0 |
| 469 | A smart ball sensor fabricated by laser kirigami of graphene for personalized long-term grip strength monitoring. <b>2022</b> , 6,  | 2 |
| 468 | An overview of proton exchange membranes for fuel cells: Materials and manufacturing. <b>2022</b> ,   | 1 |
| 467 | Single-layer graphene as a transparent electrode for electrogenerated chemiluminescence biosensing. <b>2022</b> , 138, 107290   |   |
| 466 | Wettability of graphene, water contact angle, and interfacial water structure. <b>2022</b> , 8, 1187-1200   | 3 |
| 465 | Light-to-Hydrogen Improvement Based on Three-Factored Au@CeO/Gr Hierarchical Photocatalysts.. <b>2022</b> ,   | 2 |
| 464 | Synergistic Strengthening in a Graphene Oxide and Oxidized Single-walled Carbon Nanotube Hybrid Material for use as Electrolyte in a Proton Exchange Membrane Fuel Cell.. <b>2022</b> , | 1 |
| 463 | Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A review. <b>2022</b> , 103664  | 1 |
| 462 | Ultra-fast tunable optoelectronic full-adder based on photonic crystal ring resonators covered by graphene nanoshells. <b>2022</b> , 115293   | 1 |
| 461 | Preparation and application of graphene-based wearable sensors.   | 4 |
| 460 | Phosphorene - an emerging two-dimensional material: recent advances in synthesis, functionalization, and applications.  | 2 |
| 459 | Impedance Characteristics of Monolayer and Bilayer Graphene Films with Biofilm Formation and Growth.. <b>2022</b> , 22,   |   |

- 458 Electrical activating of the nonradiative terahertz plasmon modes in a periodic grating-gate graphene structure with asymmetrical gating. **2022**, 50, 101027
- 457 Microscopic investigation of Cu-induced crystallization of amorphous carbon at low temperatures. **2022**, 595, 153507
- 456 Dynamically tunable refractive index sensor based on Fano resonance with MIM-graphene nanotube hybrid structure. **2022**, ○
- 455 Electronic and interfacial properties of graphene/HfS<sub>2</sub> van der Waals heterostructure.
- 454 Carbon-Based Nanocomposites: Processing, Electronic Properties, and Applications.
- 453 Strain dependent magnetic properties of 1T-VSe<sub>2</sub> monolayer. ○
- 452 Dynamics of broadband photoinduced species and enabled photodetection in MXenes. **2022**, 1
- 451 Microscopic theory of photon-induced energy, momentum, and angular momentum transport in the nonequilibrium regime. **2022**, 105, ○
- 450 Low-Temperature CVD-Grown Graphene Thin Films as Transparent Electrode for Organic Photovoltaics. **2022**, 12, 681 1
- 449 Monolayer crumpled graphene-based mechanically and electrically tunable infrared absorbers for high-sensitivity sensing. **2022**, 153, 108265 ○
- 448 Theoretical Prediction of Graphene-like 2D Uranyl Material with p-Orbital Antiferromagnetism. 1
- 447 Near-Infrared Heterojunction Field Modulated Phototransistors with Distinct Photodetection/Photostorage Switching Feature for Artificial Visuals.
- 446 Electrocatalysis with metal-free carbon-based catalysts. **2022**, 213-244
- 445 Integrated Optoelectronics with Two-Dimensional Materials. **2022**, ○
- 444 Quantum transport in CVD graphene synthesized with liquid carbon precursor.
- 443 All-carbon stretchable and cavity-free white lasers. **2022**, 30, 20213 ○
- 442 Boiling heat transfer of nanofluids on the graphene membrane: A molecular dynamics simulation. **2022**, 118708 ○
- 441 Simulation of a New CZTS Solar Cell Model with ZnO/CdS Core-Shell Nanowires for High Efficiency. **2022**, 12, 772

|     |  |    |
|-----|--|----|
| 440 | Recent advances in experimental and molecular dynamics study of graphene-oxide/natural rubber composites: A review. 073168442211029  | 1  |
| 439 | Simultaneously achieving narrowband and broadband light absorption enhancement in monolayer graphene. <b>2022</b> , 126, 109122  | 1  |
| 438 | Understanding interactions between biomolecules and two-dimensional nanomaterials using in silico microscopes. <b>2022</b> , 186, 114336                                       | 1  |
| 437 | 2D Materials for Efficient Photodetection: Overview, Mechanisms, Performance and UV-IR Range Applications. 10,   | 5  |
| 436 | Nondestructive visualization of graphene on Pt with methylene blue surface modification.   | 0  |
| 435 | Strong Second Harmonic Generation from Bilayer Graphene with Symmetry Breaking by Redox-Governed Charge Doping.  | 2  |
| 434 | Tunable ultra-high quality factor graphene absorber based on semicylindrical silica array and distributed Bragg reflector structure. <b>2022</b> , 12, 055125                  |    |
| 433 | Two-dimensional material inks.   | 11 |
| 432 | Controlling and Monitoring Crack Propagation in Monolayer Graphene Single Crystals. 2202373  |    |
| 431 | Optical absorption in two-dimensional materials with tilted Dirac cones. <b>2022</b> , 105,  | 3  |
| 430 | Highly Stable Semitransparent Multilayer graphene/LaVO <sub>3</sub> Vertical-Heterostructure Photodetectors.   | 0  |
| 429 | A Cu nanoparticles-assisted-catalysis method enables controllably direct growth of graphene transparent conductive films on SiO <sub>2</sub> nanospheres antireflection layer. |    |
| 428 | A Comparison for Saturable Absorbers: Carbon Nanotube Versus Graphene. 2200023   | 2  |
| 427 | Advanced wearable biosensors for the detection of body fluids and exhaled breath by graphene. <b>2022</b> , 189,   | 7  |
| 426 | Antimicrobial and Environmental activity of biogenic CS-GO nanoparticles on Uropathogens. <b>2022</b> , 1029, 012002   |    |
| 425 | Unbiased Plasmonic-Assisted Integrated Graphene Photodetectors.  | 1  |
| 424 | Critical review and recent advances of 2D materials-Based gas sensors for food spoilage detection. 1-24  | 2  |
| 423 | Laser-Based Growth and Treatment of Graphene for Advanced Photo- and Electro-Related Device Applications. 2203164  | 1  |

|     |   |   |
|-----|---|---|
| 422 | Recent progress in emerging hybrid nanomaterials towards the energy storage and heat transfer applications: A review. <b>2022</b> , 360, 119443         | 1 |
| 421 | Tear behavior of 2D MoS <sub>2</sub> induced by van der Waals force between heterogeneous interface during nanoindentation. <b>2022</b> ,               |   |
| 420 | Fabricating flexible conductive structures by printing techniques and printable conductive materials.   | 4 |
| 419 | Quantification and removal of carbonaceous impurities in a surfactant-assisted carbon nanotube dispersion and its implication on electronic properties. | 0 |
| 418 | Graphene-based polymer nanocomposites in biomedical applications. <b>2022</b> , 199-245   | 1 |
| 417 | Giant and light modifiable third-order optical nonlinearity in a free-standing h-BN film. <b>2022</b> , 1, 210013-210013                                | 0 |
| 416 | Electro-Modulation and Surface Photovoltage Spectroscopy with Semi-Transparent Graphene Electrodes.   |   |
| 415 | A Brief Overview on Facile Synthesis and Challenging Properties of Graphene Nanocomposite: State-of-the-art. <b>2022</b> , 34, 1603-1612                |   |
| 414 | Functional Nanomaterial-Based Flexible Electronics. <b>2022</b> , 12, 809   | 1 |
| 413 | Transparent Conducting Films Based on Carbon Nanotubes: Rational Design toward the Theoretical Limit. 2201673   | 3 |
| 412 | Engineering van der Waals Materials for Advanced Metaphotonics.   | 2 |
| 411 | Dynamic and Active THz Graphene Metamaterial Devices. <b>2022</b> , 12, 2097  | 0 |
| 410 | Plasmonic sensors based on graphene and graphene hybrid materials. <b>2022</b> , 9,   | 4 |
| 409 | Electrical charge control of h-BN single photon sources. <b>2022</b> , 9, 035020  | 1 |
| 408 | Graphene-Based Soft Actuator with Dynamic Spectrum Modulation for a Smart Thermal Surface. <b>2022</b> , 5, 8298-8305                                   | 0 |
| 407 | The Effect of Solvent Mixing Ratios on the Exfoliation of 2D NiTe <sub>2</sub> Thin Films for Transparent Electrodes.                                   |   |
| 406 | Two-color photodetection of graphene-based transistors enhanced by metallic photonic crystals.  | 0 |
| 405 | Raman modes and mapping of graphene nanoparticles on Si and photonic crystal substrates. <b>2022</b> , 100163   | 1 |



- 404 Advances in Flexible Optoelectronics Based on Chemical Vapor Deposition-Grown Graphene. 2203115 1
- 403 Nanoarchitectonics of graphene based sensors for food safety monitoring. 1-29 0
- 402 Superconducting Proximity Effect in d -Wave Cuprate/Graphene Heterostructures. 2100559 0
- 401 Characterization of Carbon Nanostructures by Photoelectron Spectroscopies. **2022**, 15, 4434 1
- 400 A review on graphene and its derivatives as the forerunner of the two-dimensional material family for the future. 1
- 399 Electrical control of Förster resonant energy transfer across single-layer graphene. **2022**, 11, 3247-3256
- 398 Transparent Metal Mesh Electrodes Microfabricated by Structuring Water-Soluble Polymer Resist via Laser Ablation. 1
- 397 A Novel Crossbeam Structure with Graphene Sensing Element for N/MEMS Mechanical Sensors. **2022**, 12, 2101 0
- 396 Preparation of Highly Stable and Electrochemically Active Three-dimensional Interconnected Graphene Frameworks from Jute Sticks. 0
- 395 Graphene-Enabled High-Performance Electrokinetic Focusing and Sensing.
- 394 Demonstration of passively Q-switched and mode-locked operations through dispersion control in Er-doped fiber lasers with a cylindrite-based saturable absorber. **2022**, 119064 1
- 393 Hexagonal Boron Nitride on III $\bar{V}$  Compounds: A Review of the Synthesis and Applications. **2022**, 15, 4396 0
- 392 Near-Infrared Phototransistor Based on Graphene/C<sub>60</sub>/PbPc Heterojunction with Tunable Bidirectional Photoresponse. 2200116 1
- 391 Design lamellar GO membrane based on understanding the effect of functional groups distributed in the port on desalination. **2022**, 360, 119542 1
- 390 Recent advances on graphene: Synthesis, properties and applications. **2022**, 160, 107051 4
- 389 Quantifying the diverse wave effects in thermal transport of nanoporous graphene. **2022**, 197, 18-26 0
- 388 An effective 2D saturable absorber In<sub>2</sub>O<sub>3</sub> to realize passively Q-switched laser output. **2022**, 155, 108375
- 387 Optical parameters of graphene/MoS<sub>2</sub> van der Waals heterostructure investigated by spectroscopic ellipsometry. **2022**, 599, 153987 0

- 386 Highly active reduced graphene oxide supported Ni nanoparticles for CB coupling reactions. 0
- 385 Optical properties of Xenon. **2022**, 319-352
- 384 Graphene on SiC. **2022**, 65-97
- 383 Impact of Pesticides on the Ecosystem. **2022**, 157-181 0
- 382 Improving Superior Characteristics of Glass using Graphene- Coated. **2022**, 01-06
- 381 Influence of Electric Field on Proliferation Activity of Human Dermal Fibroblasts. **2022**, 13, 89
- 380 Switchable Terahertz Absorber from Single Broadband to Dual Broadband Based on Graphene and Vanadium Dioxide. **2022**, 12, 2172 1
- 379 Research on Throat Speech Signal Detection Based on a Flexible Graphene Piezoresistive Sensor. 0
- 378 High-Performance PCF-SPR Sensor Coated with Ag and Graphene for Humidity Sensing. 0
- 377 Transparent neural implantable devices: a comprehensive review of challenges and progress. **2022**, 6, 4
- 376 Imbert-Fedorov shift at black phosphorus-coated surfaces. 1
- 375 Nanoscale light field imaging with graphene. **2022**, 3, 1
- 374 Why is graphene an extraordinary material? A review based on a decade of research. **2022**, 16, 0
- 373 Field Emission from Graphene Layers. **2023**, 213-220 1
- 372 Pressure Tunable van Hove Singularities of Twisted Bilayer Graphene. 0
- 371 Graphene Biointerface for Cardiac Arrhythmia Diagnosis and Treatment.
- 370 Recent Progress on Graphene Flexible Photodetectors. **2022**, 15, 4820 3
- 369 Extremely low effective impedance in stratified graphene-dielectric metamaterials. **2022**, 12,

- 368 Graphene-Based Polymer Composites for Flexible Electronic Applications. **2022**, 13, 1123 3
- 367 Research Progress on the Preparation and Applications of Laser-Induced Graphene Technology. **2022**, 12, 2336 2
- 366 Graphene-Based Materials: Structure and Properties. **2022**, 1-24
- 365 Universal transparency and asymmetric spin splitting near the Dirac point in HgTe quantum wells. **2022**, 106, 2
- 364 An electrochemical route to exfoliate vein graphite into graphene with black tea. **2022**, 289, 126450 2
- 363 Racetrack resonator based integrated phase shifters on silicon nitride platform. **2022**, 125, 104276
- 362 Photodetectors based on two-dimensional MoS<sub>2</sub> and its assembled heterostructures. **2022**, 1, 100017 0
- 361 Carbon-based nano lattice hybrid structures: Mechanical and thermal properties. **2022**, 144, 115392 1
- 360 First principles study of the effect of uniaxial strain on monolayer MoS<sub>2</sub>. **2022**, 144, 115401 0
- 359 Nonlinear Optical Activities in Two-Dimensional Gallium Sulfide: A Comprehensive Study. 1
- 358 A minireview on 2D materials-enabled optoelectronic artificial synaptic devices. **2022**, 10, 070702 1
- 357 Fully Desktop Fabricated Flexible Graphene Electrocardiography (ECoG) Arrays.
- 356 Electronic Topological Transition of 2D Boron by the Ion Exchange Reaction. 2
- 355 Metal supported graphene catalysis: A review on the benefits of nanoparticulate supported specialty sp<sup>2</sup> carbon catalysts on enhancing the activities of multiple chemical transformations. **2022**, 100196 2
- 354 The Preparation of Au-Loaded Ti<sub>3</sub>C<sub>2</sub> Nanosheet and Research on Its Electrocatalytic Nitrogen Reduction Performance. **2022**, 228, 174-182
- 353 The Effect of Nitrogen on the Structural and Electronic Properties of Graphene Sheet using Density Functional Theory. **2022**, 9, 1-9
- 352 Graphene-based vertical-cavity optical modulator including carrier density disorder. **2022**, 54,
- 351 Broadband, wide-incident-angle, and polarization-insensitive high-efficiency absorption of monolayer graphene with nearly 100% modulation depth at communication wavelength. **2022**, 40, 105833 1

|     |   |   |
|-----|---|---|
| 350 | Linear and nonlinear optical propagation in 2D materials. <b>2021</b> , 2021, 19-37   |   |
| 349 | Prospects of Application and Global Significance of Graphene. <b>2022</b> , 23, 268-295   | 0 |
| 348 | Discovery of Two-Dimensional Multinary Component Photocatalysts Accelerated by Machine Learning. <b>2022</b> , 13, 7228-7235  | 1 |
| 347 | Advances in solution-processed quantum dots based hybrid structures for infrared photodetector. <b>2022</b> ,   |   |
| 346 | Planar Optical Cavities Hybridized with Low-Dimensional Light-Emitting Materials. 2203889   | 1 |
| 345 | Preparation of 2D Molybdenum Phosphide via Surface-Confined Atomic Substitution. 2203220  | 1 |
| 344 | A Critical Analysis on the Sensitivity Enhancement of Surface Plasmon Resonance Sensors with Graphene. <b>2022</b> , 12, 2562   | 0 |
| 343 | Optical spectra of zigzag graphene nanoribbons: a first-principles study.   | 1 |
| 342 | Transport properties of vertical heterostructures under light irradiation. <b>2022</b> , 106,   | 0 |
| 341 | N-Doped Graphene and N-Doped Graphene Acid: Heteroatom Doping for Very Efficient Broad-Band Optical Limiting Performance from UV to NIR. <b>2022</b> , 126, 14339-14345 | 1 |
| 340 | Carbon-Related Materials: Graphene and Carbon Nanotubes in Semiconductor Applications and Design. <b>2022</b> , 13, 1257  | 2 |
| 339 | Tailoring the light absorption of monolayer graphene via accidental quasi-bound states in the continuum.  | 1 |
| 338 | Improving the device performances of two-dimensional semiconducting transition metal dichalcogenides: Three strategies. <b>2022</b> , 17,                               | 1 |
| 337 | Unveiling the effect of 2D silagraphene structural diversity on electronic properties: DFT, DOS, and ELF studies. <b>2022</b> , 28,                                     |   |
| 336 | Laser photoreduction of graphene aerogel microfibers: dynamic electrical and thermal behaviors.   | 0 |
| 335 | Advances in Zinc and Magnesium Battery Polymer Cathode Materials.   |   |
| 334 | Femtosecond Pulsed Fiber Laser by an Optical Device Based on NaOH-LPE Prepared WSe <sub>2</sub> Saturable Absorber. <b>2022</b> , 12, 2747                              | 1 |
| 333 | Integrated Self-powered Sensors Based on 2D Material Devices. 2206900   | 4 |

- 332 Perfect terahertz absorber with dynamically tunable peak and bandwidth using graphene-based metamaterials. **2022**, 39, 2313
- 331 Direct absorption nanofluid-based solar collectors for low and medium temperatures. A review. **2022**, 124916 1
- 330 Hexagonal Network of Photocurrent Enhancement in Few-Layer Graphene/InGaN Quantum Dot Junctions. 0
- 329 Ultrahigh Responsive Negative Photoconductivity Photodetector Based on Multilayer Graphene/InSe van der Waals Heterostructure. **2022**, 100484 3
- 328 Ultra-broadband and Completely Modulated Absorption Enhancement of Monolayer Graphene in Near-infrared Region. 2
- 327 Surface plasmon resonance enhanced self-powered graphene/Al<sub>2</sub>O<sub>3</sub>/InGaAs near-infrared photodetector. **2022**, 132, 073102
- 326 SnS Nanoflakes/Graphene Hybrid: Towards Broadband Spectral Response and Fast Photoresponse. **2022**, 12, 2777
- 325 Advances in Two-Dimensional Materials for Optoelectronics Applications. **2022**, 12, 1087 3
- 324 Influence of growth parameters on the dopant configuration of nitrogen-doped graphene synthesized from phthalocyanine molecules. **2022**, 33, 19361-19375
- 323 In situ growth of graphene catalyzed by phase-change material at 400 oC for wafer-scale optoelectronic device application.
- 322 Simultaneous solar water desalination and energy generation by high efficient graphene oxide-melanin photothermal membrane. **2022**, 10, 108424 0
- 321 Defect-induced photocurrent gain for carbon nanofilm-based broadband infrared photodetector. **2022**, 198, 244-251 1
- 320 A robust and scalable electron transparent multi-stacked graphene gate for effective electron-beam convergence in field emission digital X-ray sources. **2022**, 604, 154524 0
- 319 Optical spectra of bilayer borophene synthesized on Ag(1 1 1) film. **2022**, 282, 121711 0
- 318 Design of graphene and nanotubes from aromatic compounds: a theoretical study. **2022**, 28, 0
- 317 Review of nanomaterials impact on improving the performance of dye-sensitized and perovskite solar cells. **2022**, 54, 0
- 316 Encapsulated layer induces boundary effect and twist angle adjust absorption in h-BN/graphene/h-BN heterostructure. **2022**, 9, 095004 0
- 315 Transfer matrix optimization of a one-dimensional photonic crystal cavity for enhanced absorption of monolayer graphene. **2022**, 61, 8613 0

- 314 Nano-and micro-engineered vertical graphene/Ni for superior optical absorption. **2022**, 606, 154922 0
- 313 Tunable multi-narrowband perfect absorber based on graphene and black phosphorus metamaterial. **2022**, 270, 169932 1
- 312 Graphene multilayers nanoribbons with chirality from molecular dynamics. **2022**, 286, 115982 0
- 311 A review on recent advances in graphene oxide-based composite coatings for anticorrosion applications. **2022**, 173, 107208 2
- 310 A study of the interactions between human osteoblast-like cells and polymer composites with functionalized graphene derivatives using 2D correlation spectroscopy (2D-COS). **2023**, 285, 121862 0
- 309 Unique applications of carbon materials in infrared stealth: A review. **2023**, 452, 139147 2
- 308 Thermal transport in turbostratic multilayer graphene. **2023**, 201, 120-128 1
- 307 Broadband optical limiting in nanohybrids of graphene grafted peripheral (non-peripheral) pyrene substituted phthalocyanines with a low linear absorption. **2023**, 157, 108676 0
- 306 Dual-band perfect graphene absorber with an all-dielectric zero-contrast grating-based resonant cavity. **2023**, 527, 128908 0
- 305 Strain effects in the electron orbital coupling and electric structure of graphene. **2022**, 24, 23929-23935 0
- 304 Interface-engineering studies on the photoelectric properties and stability of the CsSnI<sub>3</sub>/SnS heterostructure. 0
- 303 Monolayer and bilayer graphene. **2022**, 0
- 302 Effect Of 'Pretreated Copper Foil' On the Growth of High Quality Graphene. 0
- 301 Silicon/Graphene-Ito Multiple Heterojunctions and 1-D Phc Waveguide-Based Photodetection for Mid-Nir Ipe with High Responsivity. 0
- 300 Graphene Saturable Absorber Mirror for Mode-Locked Orange Pulse Laser. **2022**, 43, 476-481 0
- 299 Graphene Nanostructures by Pulsed Laser Ablation in Liquids: A Review. **2022**, 15, 5925 0
- 298 Direct observation of bandgap opening at the metasurface of nano-scale highly oriented pyrolytic graphite. 0
- 297 Recent Progress in graphene-based optical modulators on silicon photonics platform. **2022**, 0

- 296 Structural, Electronic, and Optical Properties of Mono- and Co-Doped Graphene with Ti and Ru. ○
- 295 Synthesis of Graphene and Related Materials by Microwave-Excited Surface Wave Plasma CVD Methods. **2022**, 2, 160-184 ○
- 294 Graphene Saturable Absorber Mirror for Passive Mode-locking of Mid-Infrared QCLs. ○
- 293 Overview of the Recent Advancements in Graphene-Based H<sub>2</sub>S Sensors. **2022**, 5, 12300-12319 ○
- 292 Identification of Graphene Dispersion Agents through Molecular Fingerprints. ○
- 291 Two-Dimensional Nanomaterials: An Overview of Their Properties, Synthesis and Applications. ○
- 290 Gate-Tunable Graphene Optical Modulator on Fiber Tip: Design and Demonstration. 2201724 ○
- 289 Graphene: A Path-Breaking Discovery for Energy Storage and Sustainability. **2022**, 15, 6241 ○
- 288 2D Material-Based Photo- and Nanoelectronics. Part III. Photosensors Based on Graphene, Graphene-Like, and Related 2D Nanomaterials. **2022**, 67, 1152-1174 ○
- 287 MXene, Silicene and Germanene: Preparation and Energy Storage Applications. **2022**, 101144 ○
- 286 Enhanced room-temperature reduction of graphene oxide using Al as a supplement in the liquid phase HI. **2022**, ○
- 285 Biosensors Based on Graphene Nanomaterials. **2022**, 77, 307-321 ○
- 284 Energy transfer in hybrid 0D-CdSe quantum dot/2D-WSe<sub>2</sub> near-infrared photodetectors. **2022**, 55, 444006 ○
- 283 Study on the Field-Effect WSe<sub>2</sub>/Si Heterojunction Diode. ○
- 282 Gate-tunable modulation of the optical properties of multilayer graphene by the reversible intercalation of ionic liquid anions. **2022**, 132, 095102 ○
- 281 Carbon Nanodots Assisted Surface Engineering of GaN Photoanodes for Efficient and Stable Photoelectrochemical Water Oxidation. 2200198 ○
- 280 Graphene/carbon-based materials for advanced energy conversion applications. **2022**, 13, 033005 ○
- 279 Optical conductivity of semi-Dirac and pseudospin-1 models: Zitterbewegung approach. **2022**, 106, ○

|     |  |   |
|-----|--|---|
| 278 | Two-photon absorption in semiconductors: A multiband length gauge analysis. <b>2022</b> , 106,   | 0 |
| 277 | Ultra-fast tunable optoelectronic 2-to-4 binary decoder using graphene-coated silica rods in photonic crystal ring resonators. <b>2022</b> , 54,   | 2 |
| 276 | Highly sensitive terahertz sensor based on graphene metamaterial absorber. <b>2022</b> , 129021  | 1 |
| 275 | Scalable approach to fabricate paper-based biomass reduced graphene sensor for the detection of exhaled diabetic breath. <b>2022</b> , 33, 495703  | 0 |
| 274 | Graphene-Induced Performance Enhancement of Batteries, Touch Screens, Transparent Memory, and Integrated Circuits: A Critical Review on a Decade of Developments. <b>2022</b> , 12, 3146 | 1 |
| 273 | All in One-Chip, Electrolyte-Gated Graphene Amplitude Modulator, Saturable Absorber Mirror and Metrological Frequency-Tuner in the 2 $\theta$ THz Range. 2200819                         | 0 |
| 272 | Charge carrier dynamics in 2D materials probed by ultrafast THz spectroscopy. <b>2023</b> , 8,   | 0 |
| 271 | Effect of Mo Vacancy on the Photoresponse of Bilayer MoS <sub>2</sub> Film. <b>2022</b> , 31, 107-109  | 0 |
| 270 | Phonon anharmonicity and thermal conductivity of two-dimensional van der Waals materials: A review. <b>2022</b> , 65,  | 0 |
| 269 | Multi-channel Luttinger Liquids at the Edge of Quantum Hall Systems.   | 1 |
| 268 | Klein Tunneling through Triple Barrier in AB Bilayer Graphene. 2200308   | 0 |
| 267 | Progress in preparation, characterization, surface functional modification of graphene oxide: A review. <b>2022</b> , 101560   | 0 |
| 266 | Enhanced terahertz third harmonic generation with high-order guided-mode resonance of graphene plasmonic gratings. <b>2022</b> , 97, 115501  | 1 |
| 265 | Transparent UHF RFID tags based on CVD-grown graphene films. <b>2022</b> , 33, 505501  | 0 |
| 264 | Pseudo-Brewster angles for monolayer-MoS <sub>2</sub> and graphene immersed in a dielectric medium. <b>2022</b> , 761, 139491  | 0 |
| 263 | Machine learning-assisted exploration of thermally conductive polymers based on high-throughput molecular dynamics simulations. <b>2022</b> , 28, 100850                                 | 0 |
| 262 | Properties and Applications of Graphene. <b>2020</b> , 5, 155-164  | 0 |
| 261 | The zoology of two-dimensional van der Waals materials. <b>2022</b> ,  | 0 |



- 260 Recent major advances and challenges in the emerging Graphene based nanomaterials in electrocatalytic Fuel Cell technology. 0
- 259 Two-dimensional materials for photoelectrochemical water splitting. 1
- 258 Wrinkled 2D hybrid heterostructures for stretchable and sensitive photodetectors. 1
- 257 Role of tilt grain boundaries on the structural integrity of WSe<sub>2</sub> monolayers. 1
- 256 A Surface Modification Strategy Towards Reversible Na-ion Intercalation on Graphitic Carbon Using Fluorinated Few-Layer Graphene. **2022**, 169, 106522 0
- 255 How are Hydroxyl Groups Localized on a Graphene Sheet?. **2022**, 7, 37221-37228 0
- 254 Non-wetting of condensation-induced droplets on smooth monolayer suspended graphene with contact angle approaching 180 degrees. **2022**, 3, 0
- 253 Research status on flexible electronic skin based on laser reduction graphene oxide. **2022**, 0
- 252 Graphene Properties, Synthesis and Applications: A Review. 0
- 251 Harmonic generation in bent graphene with artificially enhanced spin-orbit coupling. **2022**, 106, 0
- 250 Recent development of graphene-based composite for multifunctional applications: energy, environmental and biomedical sciences. 1-69 1
- 249 Robust UV Plasmonic Properties of Co-Doped Ag<sub>2</sub>Te. **2022**, 12, 1469 0
- 248 Surface Analysis of Graphene and Graphite. 0
- 247 Graphene saturable absorber mirror for passive mode-locking of mid-infrared QCLs. **2022**, 54, 0
- 246 Visible light emission enhancement from a graphene-based metal Fabry-Pérot cavity. **2022**, 30, 41110 0
- 245 Theory of sub-Sharvin charge transport in graphene disks. **2022**, 106, 0
- 244 Strongly enhanced THz generation enabled by a graphene hot-carrier fast lane. **2022**, 13, 1
- 243 Metasurface Enabled Photothermoelectric Photoresponse of Semimetal Cd<sub>3</sub>As<sub>2</sub> for Broadband Photodetection. 0

|     |   |   |
|-----|---|---|
| 242 | Auger scattering dynamic of photo-excited hot carriers in nano-graphite film. <b>2022</b> , 121, 181104   | 1 |
| 241 | Production and characterization of spark plasma sintered (Ti,Nb)B <sub>2</sub> solid solutions with graphene nanoplatelets and hexagonal boron nitride. <b>2022</b> , | 0 |
| 240 | Graphene and Its Derivatives: Synthesis and Application in the Electrochemical Detection of Analytes in Sweat. <b>2022</b> , 12, 910                                  | 5 |
| 239 | Recent Advances in the Characterized Identification of Mono-to-Multi-Layer Graphene and Its Biomedical Applications: A Review. <b>2022</b> , 11, 3345                 | 2 |
| 238 | Two-dimensional Dirac plasmon-polaritons in graphene, 3D topological insulator and hybrid systems. <b>2022</b> , 11,  | 0 |
| 237 | Active Control of Surface Plasmon Polaritons by Varying the Chemical Potential of Graphene in Graphene-Covered Metamaterial. <b>2022</b> , 30, 298-305                | 0 |
| 236 | Self-Driven Ultrafast Response Photodetector Based on Graphene/Water/Silicon Structure. 2200782   | 0 |
| 235 | A critical review on the effect of morphology, stability, and thermophysical properties of graphene nanoparticles in nanolubricants and nanofluids.                   | 0 |
| 234 | A high-performance and broadband two-dimensional perovskite-based photodetector via van der Waals integration. <b>2022</b> , 121, 161104                              | 0 |
| 233 | Bush-Shaped Vertical Graphene/Nichrome Wire for Blackbody-Like Radiative Heating. 2208785   | 0 |
| 232 | Structure, synthesis, and properties of single-metal-atom chains. <b>2022</b> , 101124  | 0 |
| 231 | Evolution of copper step beams during graphene growth by CVD method. <b>2022</b> , 155518   | 0 |
| 230 | Anomalous Transport Signatures in Weyl Semimetals with Point Defects. <b>2022</b> , 129,  | 0 |
| 229 | Graphene-Based Metal-Organic Framework Hybrids for Applications in Catalysis, Environmental, and Energy Technologies.   | 5 |
| 228 | Analysis of graphene coated optical fiber for visible range refractive index sensing. <b>2022</b> , 129097  | 1 |
| 227 | Intrinsic and engineered properties of black phosphorus. <b>2022</b> , 28, 100895   | 0 |
| 226 | Photo-dynamics in 2D materials: Processes, tunability and device applications. <b>2022</b> , 993, 1-70  | 0 |
| 225 | Dynamically switchable triple-band absorption enhancement of graphene by a subwavelength grating coupled hybrid structure. <b>2022</b> , 43, 106057                   | 0 |

- 224 Recent advances in chemical vapour deposition techniques for graphene-based nanoarchitectures: From synthesis to contemporary applications. **2023**, 475, 214910 2
- 223 First-principles prediction of the missed Pmmn phase for a GaTe monolayer as a new two-dimensional semiconductor. **2023**, 223, 115073 0
- 222 Layer-resolved Raman imaging and analysis of parasitic ad-layers in transferred graphene. **2023**, 608, 155054 0
- 221 Coordinated matrix deformation induced ductility in multilayer graphene/aluminum composites. **2023**, 202, 31-40 0
- 220 Ultra-low-power photodetector based on a high-photoresponse, plasmonic-effect-induced gateless quasi-freestanding graphene device. **2023**, 610, 155275 0
- 219 Chapter 8. Fate and Behaviour of Carbon Nanomaterials in the Aquatic Environment: A Case of Graphene and Graphene Oxide. **2022**, 211-237 0
- 218 Advanced Applications of Carbon Nanotubes in Engineering Technologies. **2022**, 2001-2038 0
- 217 Flexible and stretchable transparent conductive graphene-based electrodes for emerging wearable electronics. **2023**, 202, 495-527 1
- 216 Optical saturable absorption of conformal graphene directly synthesized on nonlinear device surfaces. **2023**, 611, 155641 0
- 215 Superhydrophobic graphene nanowalls for electromagnetic interference shielding and infrared photodetection via a two-step transfer method. **2023**, 454, 140159 0
- 214 Recent research progress of carbon-based and their composites for electromagnetic waves absorption. 004051752211362 0
- 213 Graphene Incorporated Electrospun Nanofiber for Electrochemical Sensing and Biomedical Applications: A Critical Review. **2022**, 22, 8661 4
- 212 Synchronized Wet-chemical Development of 2-Dimensional MoS<sub>2</sub> and g-C<sub>3</sub>N<sub>4</sub>/MoS<sub>2</sub> QDs Nanocomposite as Efficient Photocatalysts for Detoxification of Aqueous Dye Solutions. **2022**, 130581 0
- 211 Second harmonic generation in air-exposed few-layer black phosphorus. **2022**, 115572 0
- 210 Anisotropic mechanical response of a 2D covalently bound fullerene lattice. **2022**, 1 1
- 209 Few-Layer Graphene as an Efficient Buffer for GaN/AlN Epitaxy on a SiO<sub>2</sub>/Si Substrate: A Joint Experimental and Theoretical Study. **2022**, 12, 11516 0
- 208 Highly Sensitive Self-Powered UV-Visible Photodetector Based on ZrO<sub>2</sub>-RGO Nanofibers/n-Si Heterojunction. **2022**, 168054 0
- 207 Evaluating the thermal and mechanical properties of GO-modified epoxy/CBB interface: an atomic investigation. 0

- 206 Recent advances in 2D organic/inorganic heterostructures for electronics and optoelectronics. 0
- 205 Stacking order reduction in multilayer graphene by inserting nanopacers. **2022**, 132, 174305 0
- 204 Perfect Optical Absorption in a single array of folded Graphene Ribbons. 0
- 203 Recent Progress of Gr/Si Schottky Photodetectors. 0
- 202 Photodetectors Based on Emerging Materials. **2023**, 777-805 0
- 201 Cesium intercalation of graphene: A 2D protective layer on alkali antimonide photocathode. **2022**, 10, 111115 1
- 200 Recent advances in water-induced electricity generation based on 2D materials: A review. 0
- 199 Competitive growth between the top and bottom layers of few-layer graphene at the domain boundary merging stage. **2022**, 0
- 198 Synthesis and characterization of the two magnetic nanocomposites, based on polyaniline and doped with Cerium and Terbium.. 0
- 197 Atomically Thin Alkane Passivation Layer for Flexible and Transparent Graphene Electronics. **2022**, 155695 0
- 196 A PCF Sensor Coated with Au-Graphene /Mxene for Low Refractive Index and Wide Detection Range Detection. 0
- 195 Graphene multilayers for coherent perfect absorption: effects of interlayer separation. 0
- 194 Flexible, robust and temperature resistive NIR photodetector based on P-WSe<sub>2</sub>/P-CuO hybrid on cellulose paper. **2022**, 0
- 193 Metal-semiconductor transition in E-graphene. **2022**, 33, 104833 0
- 192 Carbonous-Based Optoelectronic Devices. **2023**, 101-125 0
- 191 Stretchable photodetectors based on 2D materials: Materials Synthesis, Fabrications and Applications. **2022**, 100452 2
- 190 Study of structural and electronic properties of graphene and some graphene derivatives based on orthorhombic unit cell by density functional theory. **2022**, 60, 794-802 0
- 189 Silicon/graphene-ITO multiple heterojunctions and 1D PhC waveguide-based photodetection for mid-NIR IPE with high responsivity. **2022**, 129142 0

|     |  |   |
|-----|--|---|
| 188 | Single-band to multi-band perfect absorption in monolayer-graphene-based dielectric metasurfaces. <b>2022</b> , 129140   | 0 |
| 187 | Metal Thermopile Infrared Detector With Vertical Graphene. <b>2022</b> , 0   | 0 |
| 186 | Robust approach towards wearable power efficient transistors with low subthreshold swing. <b>2023</b> , 30, 100943   | 0 |
| 185 | p-Si/Macro-Assembled Graphene/n-Si Heterojunction Near-Infrared Photodetector. <b>2022</b> , 1-5   | 0 |
| 184 | Electrical regulation of interfacial thermal conductance of graphene/MoS2 heterojunction: Uncovering the role of electrons. <b>2023</b> , 203, 571-579   | 0 |
| 183 | Giant hot electron thermalization via stacking of graphene layers. <b>2023</b> , 203, 835-841  | 0 |
| 182 | Engineering graphene-based electrodes for optical neural stimulation.  | 0 |
| 181 | Design and numerical simulation of a sensitive plasmonic-based nanosensor utilizing MoS2 monolayer and graphene. <b>2023</b> , 131, 109594   | 3 |
| 180 | Broadband perfect optical absorption enabled by quasi-bound states in the continuum in graphene non-concentric rings. <b>2022</b> , 25, 604-611  | 1 |
| 179 | A Broadband 3D Microtubular Photodetector Based on Single Wall Carbon Nanotubes-Graphene Heterojunction.   | 0 |
| 178 | Graphene Barristors for De Novo Optoelectronics.   | 0 |
| 177 | Stretchable conductors for stretchable field-effect transistors and functional circuits.   | 0 |
| 176 | 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. <b>2023</b> , 203, 813-826 | 0 |
| 175 | Surface modification of ET-10 graphite by helium irradiation and preoxidation: Morphology, microstructure and chemical states. <b>2023</b> , 574, 154173   | 0 |
| 174 | A comprehensive study of tunable properties of broadband terahertz absorber based on graphene-embedded random photonic crystals. <b>2023</b> , 650, 414581   | 0 |
| 173 | A mid-infrared passively Q-switching Er:YSGG pulse laser based on MXene saturable absorber. <b>2023</b> , 273, 170413  | 0 |
| 172 | Electro-modulation and surface photovoltage spectroscopy with semi-transparent graphene electrodes. <b>2023</b> , 613, 156020  | 0 |
| 171 | Optical and thermoelectric properties of square lattice phases of alkali halide compounds. <b>2023</b> , 174, 111142   | 0 |

- 170 Grafting macromolecular chains on the surface of graphene oxide through crosslinker for antistatic and thermally stable polyethylene terephthalate nanocomposites. **2022**, 12, 33329-33339 0
- 169 Momentum Alignment and the Optical Valley Hall Effect in Low-Dimensional Dirac Materials. **2022**, 135, 513-530 0
- 168 Silicene/GaAs van der Waals heterostructure for optoelectronic applications. **2022**, 57, 21324-21338 0
- 167 Assisting the mode-locking of a figure-9 fiber laser by thermal nonlinearity of graphene-decorated microfiber. 0
- 166 Molecular Doping of CVD-Graphene Surfaces by Perfluoroalkyl-Substituted Perylene Diimides Derivatives. **2022**, 12, 4239 0
- 165 Self-Supported Graphene Nanosheet-Based Composites as Binder-Free Electrodes for Advanced Electrochemical Energy Conversion and Storage. **2022**, 5, 1
- 164 Photoaccelerated Water Dissociation Across One-Atom-Thick Electrodes. **2022**, 22, 9566-9570 0
- 163 A Multifunctional Reconfigurable Absorber Enabled by Graphene and Shape Memory Alloy. 2202125 0
- 162 Graphene Metamaterial 3D Conformal Coating for Enhanced Light Harvesting. 0
- 161 Hyperbolic metamaterial structures based on graphene for THz super-resolution imaging applications. **2023**, 13, 247 1
- 160 Third-order optical nonlinearity of one-dimensional Dirac fermions. **2022**, 106, 0
- 159 Concept of terahertz waveguide plasmon amplifier based on a metal groove with active graphene. **2022**, 12, 0
- 158 2D Few-Layered PdPS: Toward High-Efficient Self-Powered Broadband Photodetector and Sensors. 0
- 157 Neighbourhood Sum Degree-Based Indices and Entropy Measures for Certain Family of Graphene Molecules. **2023**, 28, 168 2
- 156 Deep ultraviolet spontaneous emission enhanced by layer dependent black phosphorus plasmonics. **2022**, 30, 47152 2
- 155 Hybrid Lamellar Superlattices with Monoatomic Platinum Layers and Programmable Organic Ligands. 0
- 154 Tunable light trapping in the graphene metasurface. **2022**, 61, 10694 0
- 153 Application of HTS in Rechargeable Battery. **2023**, 55-95 0

- 152 Graphene Frameworks for Nanodevices. **2022**, 12, 1936 ○
- 151 Graphene and Two-Dimensional Materials-Based Flexible Electronics for Wearable Biomedical Sensors. **2023**, 12, 45 ○
- 150 Improving the performance of the self-powered polymer-based UV/Vis photodetectors via carbon fibers. **2023**, 98, 015831 ○
- 149 Fabrication and Characterization of Pre-Defined Few-Layer Graphene. **2023**, 3, 13-21 ○
- 148 Electric field tuning of the optical absorbance of topological insulator thin films. **2022**, 106, ○
- 147 Hybrid 1D Semiconducting ZnO and GaN Nanostructures for Light-Emitting Devices. **2023**, 205-216 ○
- 146 Ultraviolet-Sensitive Properties of Graphene Nanofriction. **2022**, 12, 4462 ○
- 145 Synthesis of Multilayer Graphene with Controlled C Supply. 2201311 ○
- 144 Two-Dimensional MXenes for Energy Storage: Computational and Experimental Approaches. **2022**, 7, ○
- 143 A comprehensive review on ultrathin, multi-functionalized, and smart graphene and graphene-based composite protective coatings. **2022**, 110939 1
- 142 Strain Induces Ferromagnetism in a Janus Transition Metal Dichalcogenides: CrSTe-1H Monolayer. 1
- 141 Fabrication of Conductive Fabrics Based on SWCNTs, MWCNTs and Graphene and Their Applications: A Review. **2022**, 14, 5376 2
- 140 Gate-tunable bolometer based on strongly coupled graphene mechanical resonators. **2023**, 48, 81 ○
- 139 Fully desktop fabricated flexible graphene electrocorticography (ECoG) arrays. ○
- 138 Preparation and characterization of graphene oxide nanoparticles derived from wheat straw. **2022**, ○
- 137 A complete numerical analysis of the impact of disorder and defect cavities on achieving complete optical absorption in monolayer graphene with supporting random structures. **2023**, 55, ○
- 136 In-Situ Catalytic Preparation of Two-Dimensional BCN/Graphene Composite for Anti-Corrosion Application. **2022**, 12, 1618 1
- 135 Recent Advances in Surface Modifications of Elemental Two-Dimensional Materials: Structures, Properties, and Applications. **2023**, 28, 200 ○

|     |   |   |
|-----|---|---|
| 134 | Polymer/graphene nanocomposite for corrosion protection application: From design to technical trends. <b>2022</b> , 61, 1521-1543                               | 1 |
| 133 | Role of graphene towards long-term stability of flexible heaters made of graphene-coated silver nanowire networks under repeated deformation. <b>2023</b> , 34, | 0 |
| 132 | Direct Probe of Electrochemical Pseudocapacitive pH Jump at a Graphene Electrode.   | 0 |
| 131 | In Situ Growth of Graphene Catalyzed by a Phase-Change Material at 400 °C for Wafer-Scale Optoelectronic Device Application. 2206738                            | 0 |
| 130 | Recent insights into BCN nanomaterials Synthesis, properties and applications.  | 0 |
| 129 | Graphene Layer Morphology and Oxidation Behavior Induced by Step Bunches Created on Copper Substrate.   | 0 |
| 128 | Responsivity enhancement in PtSi photodetector with graphene by photogating effect.   | 0 |
| 127 | Phonon polarization deformation in graphene induced by substrate coupling strengths. <b>2023</b> , 122, 032201  | 0 |
| 126 | Nonlinear optical properties of 2D materials. <b>2023</b> ,   | 0 |
| 125 | Optoelectronic properties of monolayer and bilayer AgI: role of many-body interactions.   | 0 |
| 124 | Watered-Based Graphene Dispersion Stabilized by a Graft Co-Polymer for Electrically Conductive Screen Printing. <b>2023</b> , 15, 356                           | 0 |
| 123 | Graphene Oxide for Nonlinear Integrated Photonics. 2200512  | 3 |
| 122 | Isotope Engineered Fluorinated Single and Bilayer Graphene: Insights into Fluorination Selectivity, Stability, and Defect Passivation. 2205575                  | 0 |
| 121 | Charge Steering in Heterojunction Photocatalysis: General Principles, Design, Construction, and Challenges. 2200041   | 1 |
| 120 | Porous functional materials with excellent solar-thermal and electro-thermal properties for desalination of saline water. <b>2023</b> , 123184                  | 1 |
| 119 | Deterministic organic functionalization of monolayer graphene via high resolution surface engineering.  | 0 |
| 118 | Graphene/electrospun carbon nanofiber sponge composites induced by magnetic particles for muti-functional pressure sensor. <b>2023</b> ,                        | 0 |
| 117 | Ultrafast hot-carrier cooling in quasi freestanding bilayer graphene with hydrogen intercalated atoms. <b>2023</b> , 5, 485-492                                 | 0 |



- 116 Ultrasonic exfoliated violet phosphorene/graphene heterojunction as NO gas sensor. **2023**, 767, 139666 ○
- 115 Calculation of tunable electronic and optical properties of AlSb/CdSe heterojunction based on first principles. **2023**, 614, 156261 ○
- 114 Transmission in strained graphene subjected to laser and magnetic fields. **2023**, 148, 115645 ○
- 113 Synthesis of N-Doped Few-Layer Graphene through Shock-Induced Carbon Fixation from CO<sub>2</sub>. **2023**, 13, 109 ○
- 112 Flexible temperature sensors based on two-dimensional materials for wearable devices. ○
- 111 Graphene/h-BN Nanosheet/Nanosphere Composites Constructed by In Situ Laser Irradiation with Synergistically Improved Tribological Performance. **2023**, 62, 435-444 ○
- 110 SiO<sub>2</sub> Passivated Graphene Saturable Absorber Mirrors for Ultrashort Pulse Generation. **2023**, 13, 111 1
- 109 Design for the reconfigurable polarization rotator by inhibiting Fano resonance with graphene-metal grating structures. 1-29 ○
- 108 Interfacial Charge Transfer and Ultrafast Photonics Application of 2D Graphene/InSe Heterostructure. **2023**, 13, 147 1
- 107 Near-Perfect Narrow-Band Tunable Graphene Absorber with a Dual-Layer Asymmetric Meta-Grating. **2023**, 10, 14 ○
- 106 Third-Order Optical Nonlinearities of 2D Materials at Telecommunications Wavelengths. **2023**, 14, 307 ○
- 105 Recent advances in single crystal narrow band-gap semiconductor nanomembranes and their flexible optoelectronic device applications: Ge, GeSn, InGaAs, and 2D materials. ○
- 104 Halide perovskite for photodetector applications. **2023**, 335-367 ○
- 103 In-vivo processing of nanoassemblies: a neglected framework for recycling to bypass nanotoxicological therapeutics. ○
- 102 Anomalous optical response of graphene on hexagonal boron nitride substrates. **2023**, 6, ○
- 101 Graphene-Based Wearable Biosensors. **2023**, 107-128 ○
- 100 Graphene-based nanomaterials for CO<sub>2</sub> capture and conversion. **2023**, 211-243 ○
- 99 Carbon nanotubes and other carbon nanomaterials: Prospects for functionalization. **2023**, 107-147 ○

|    |  |   |
|----|--|---|
| 98 | 2D materials for flexible electronics. <b>2023</b> , 169-206   | 0 |
| 97 | Reducing Carbonaceous Salts for Facile Fabrication of Monolayer Graphene. 2201596  | 1 |
| 96 | Graphene-Based Drug Delivery System. <b>2023</b> , 189-210   | 0 |
| 95 | Gold Nanorod-Activated Graphene/MoS <sub>2</sub> Nanosheet-Based Photodetectors for Bidirectional Photoconductance. <b>2023</b> , 6, 1783-1795       | 0 |
| 94 | Theoretical study on the interactions of Anemopsis californica compounds with graphene monolayers: A DFT perspective.                                | 0 |
| 93 | Transfer of optical vortices at the Landau level of graphene. <b>2023</b> , 138,   | 0 |
| 92 | Solution-Processed OLEDs for Printing Displays.  | 0 |
| 91 | A pH-value sensitive and self-powered photodetector based on an anthocyanin/graphene heterojunction. <b>2023</b> , 11, 4182-4187                     | 0 |
| 90 | Defect engineering of two-dimensional materials for advanced energy conversion and storage. <b>2023</b> , 52, 1723-1772                              | 1 |
| 89 | Recent Progress in Emerging Novel MXenes Based Materials and their Fascinating Sensing Applications. 2206147   | 0 |
| 88 | Enabling the transition to ductile MAX phases and the exfoliation to MXenes via tuning the A element. <b>2023</b> , 106, 3765-3776                   | 0 |
| 87 | Sub-5 nm 2D Semiconductor-Based Monolayer Field-Effect Transistor: Status and Prospects.   | 0 |
| 86 | Wafer-Scale Integration of Single Layer Graphene Electro-Absorption Modulators in a 300 mm CMOS Pilot Line.  | 0 |
| 85 | Plasmon logic gates and dual-narrowband absorption switching effect in hybrid structure composed of silver and spaced dual graphene monolayers. 1-16 | 0 |
| 84 | Neutral Magic-Angle Bilayer Graphene: Condon Instability and Chiral Resonances.  | 0 |
| 83 | Improvement in compressive stiffness of graphene aerogels by sandwiching carbon nanotubes. <b>2023</b> , 135, 109897                                 | 0 |
| 82 | MXenes: from past to future perspectives. <b>2023</b> , 463, 142351  | 0 |
| 81 | A theoretical exploration of different $\pi$ -stacking dimers of coronenes and its substituted analogues. <b>2023</b> , 1282, 135198                 | 0 |

- 80 Calculation of tunable electronic and optical properties of AlP/InSe heterostructure based on first principles. **2023**, 160, 107443 ○
- 79 Dramatic increase in SWIR detection for GeSn strip detector with graphene hybrid structure. **2023**, 945, 169287 ○
- 78 Visible light response in 2D QBi (Q=Si, Ge and Sn) monolayer semiconductors: A DFT based study. **2023**, 35, 105886 ○
- 77 Determination of Graphene Migration Single Defect Site and Its Electronic Structure with Various Sizes. **2022**, 17, 1231-1237 ○
- 76 Magneto-tunable terahertz absorption in single-layer graphene: A general approach. **2023**, 151, 115728 ○
- 75 Graphene materials for fabrication of robots. **2023**, 302, 127781 ○
- 74 Study the effect of graphene and silver nanoparticles on the structural, morphological, optical, and antibacterial properties of commercial titanium oxide. **2023**, 149, 110441 ○
- 73 Graphene in wearable textile sensor devices for healthcare. **2022**, 54, 201-245 ○
- 72 Research Progress of Resonance Optical Fiber Sensors Modified by Low-Dimensional Materials. 2200859 ○
- 71 Facile Synthesis of Wafer-Scale Single-Crystal Graphene Film on Atomic Sawtooth Cu Substrate. **2023**, 32, 26-29 ○
- 70 State-of-the-Art Graphene Synthesis Methods and Environmental Concerns. **2023**, 2023, 1-23 ○
- 69 Plasmon resonances of graphene-assisted core-shell nanoparticles. **2023**, 98, 035509 ○
- 68 Thickness Determination of Ultrathin 2D Materials Empowered by Machine Learning Algorithms. **2023**, 17, ○
- 67 Promoting 2D Material Photodetectors by Optical Antennas beyond Noble Metals. 2200079 ○
- 66 Intensity-Dependent Thermally Induced Nonlinear Optical Response of Two-Dimensional Layered Transition-Metal Dichalcogenides in Suspension. **2023**, 10, 484-492 ○
- 65 Rational Design of Ti3C2Tx MXene Inks for Conductive, Transparent Films. **2023**, 17, 3737-3749 ○
- 64 Optical absorption measurement of spin Berry curvature and spin Chern marker. **2023**, 35, 155601 ○
- 63 A Study on Absorptance Enhancement of Multilayer Graphene Metamaterial in Terahertz Regime. **2022**, ○

- 62 Highly crystalline selectively oxidized graphene for supercapacitors. **2023**, 38, 100483 ○
- 61 Study of the influence of parameters to explore the Properties of Graphene Nanoribbon Field Effect Transistors. **2022**, ○
- 60 Study comparing the tribological behavior of propylene glycol and water dispersed with graphene nanopowder. **2023**, 13, ○
- 59 Rugged bialkali photocathodes encapsulated with graphene and thin metal film. **2023**, 13, ○
- 58 Strong anisotropic optical response in two-dimensional Mo-VIA and Mo-VIIA monolayer binary materials. **2023**, 53, 101114 ○
- 57 A first-principles study on the multiferroicity of semi-modified X2M (X = C, Si; M = F, Cl) monolayers. **2023**, 25, 7965-7973 ○
- 56 Hybrid Heterostructures to Generate Long-Lived and Mobile Photocarriers in Graphene. **2023**, 17, 3939-3947 ○
- 55 Study of magnetoplasmons in graphene rings with two-dimensional finite element method. **2023**, 72, 087301 ○
- 54 The absorptance in multilayer MoS<sub>2</sub> and WS<sub>2</sub>-dielectric structures. **2023**, 277, 170696 ○
- 53 A Comprehensive Review on Novel Graphene-Hydroxyapatite Nanocomposites For Potential Bioimplant Applications. **2023**, 8, ○
- 52 2D Material Infrared Photonics and Plasmonics. **2023**, 17, 4134-4179 1
- 51 Graphene nanoplatelets and other 2D-materials as protective means against the fading of coloured inks, dyes and paints. **2023**, 15, 5414-5428 ○
- 50 Fabrication of metal/oxide/fluorographene/oxide/silicon capacitors and their charge trapping properties. **2023**, 62, SG1035 ○
- 49 The Physics behind the Modulation of Thermionic Current in Photodetectors Based on Graphene Embedded between Amorphous and Crystalline Silicon. **2023**, 13, 872 ○
- 48 Developments of nanocomposites in dye-sensitized solar cells. **2023**, 225-253 ○
- 47 Graphene quantum dots for optical application. **2023**, 211-225 ○
- 46 Band structure engineering and transport properties of graphene/BN van der Waals heterostructures. **2023**, 46, 106315 ○
- 45 Shear-strain controlled high-harmonic generation in graphene. **2023**, 107, ○

- 44 Graphene transparent antennas. **2023**, 2, 23-30 ○
- 43 Determination of the effect of hydrogen peroxide on the structure of graphene produced by electrochemical method. **2023**, 27, 1203-1211 ○
- 42 Anomaly cancellation in the lattice effective electroweak theory. **2023**, 64, 032303 ○
- 41 Contemporary updates on bioremediation applications of graphene and its composites. **2023**, 30, 48854-48867 ○
- 40 Graphene Nanogap Interdigitated Asymmetric Electrodes for Photodetection. **2023**, 11, 181 ○
- 39 Gate-Tunable Potential Barrier on Dual-Gate Graphene Transistor with Fluorocarbon Thin Film. **2023**, 10, ○
- 38 Combining pMINFLUX, graphene energy transfer and DNA-PAINT for nanometer precise 3D super-resolution microscopy. **2023**, 12, ○
- 37 Strategies to break the trade-off between infrared transparency and conductivity. **2023**, 136, 101112 ○
- 36 Perfect Narrow-Band Absorber of Monolayer Borophene in All-Dielectric Grating Based on Quasi-Bound State in the Continuum. **2023**, 535, ○
- 35 The recent progress of laser-induced graphene based device applications. **2023**, 44, 031701 ○
- 34 Enhanced Goos-Hänchen Shift of SPR Sensor with TMDCs and Doped PANI/Chitosan Composites for Heavy Metal Ions Detection in Aquatic Environment. ○
- 33 Epitaxial growth of borophene on substrates. **2023**, 100704 ○
- 32 Potential of graphene-modified nanostructures for multifunctional personal protective clothing. **2023**, 195-218 ○
- 31 Monolayer Graphene Terahertz Detector Integrated with Artificial Microstructure. **2023**, 23, 3203 ○
- 30 Deep neural network-aided design of terahertz bifunctional metasurface. **2023**, 47, 106333 ○
- 29 Facile Electrochemical Approach Based on Hydrogen-Bonded MOFs-Derived Tungsten Ethoxide/Polypyrrole-Reduced GO Nanocrystal for ppb Level Ammonium Ions Detection. **2023**, 11, 201 ○
- 28 The Efficiency Study of Graphene Synthesis on Copper Substrate via Chemical Vapor Deposition Method with Methanol Precursor. **2023**, 13, 1136 ○
- 27 Graphene Biointerface for Cardiac Arrhythmia Diagnosis and Treatment. ○

- 26 Recent developments in 2D materials for energy harvesting applications. ○
- 25 Accelerated Synthesis of Borophane (HB) Sheets through HCl-Assisted Ion-Exchange Reaction with YCrB4. **2023**, 28, 2985 ○
- 24 Quinone-based imide conjugated microporous polymer-reductive graphene oxide composite as an efficient electrode for hybrid supercapacitors. ○
- 23 Controlling the resistive switching polarity in ReS<sub>2</sub> lateral memristors through the modulation of crystal structures. **2023**, 16, 044001 ○
- 22 Properties of condensed matter from fundamental physical constants. **2021**, 70, 469-512 ○
- 21 ??????????????????. **2023**, 52, 0213003 ○
- 20 Effect of Annealing on Graphene/PVDF Nanocomposites. **2023**, 8, 13876-13883 ○
- 19 Machine learning method for determining chemical vapor deposition conditions for large-area graphene growth. ○
- 18 Rational and key strategies toward enhancing the performance of graphene/silicon solar cells. ○
- 17 First-principles study of electronic and optical properties of novel 2D TiOS monolayer and bilayerDimensionality reduction opens up a band gap in TiOS. **2023**, 48, 106438 ○
- 16 Enhanced Goos-Hänchen Shift of SPR Sensor with TMDCs and Doped PANI/Chitosan Composites for Heavy Metal Ions Detection in Aquatic Environment. ○
- 15 Thermally induced mechanical strain of graphene on copper and other substrates. **2023**, 111371 ○
- 14 Rational Engineering of 2D Materials as Advanced Catalyst Cathodes for High-Performance MetalCarbon Dioxide Batteries. ○
- 13 Controlling solar radiation forces with graphene in plasmonic metasurface. ○
- 12 Microwave Absorption Properties of Double-Layer Absorbing Material Based on Carbonyl Iron and Graphene Composites. **2023**, 666-673 ○
- 11 Advances in the Field of Two-Dimensional Crystal-Based Photodetectors. **2023**, 13, 1379 ○
- 10 Interlayer sensitized van der Waals heterojunction photodetector with enhanced performance. ○
- 9 Two-dimensional Mg<sub>2</sub>Si-111: A direct bandgap semiconductor with excellent optical response properties predicted by first-principles calculations. **2023**, 128849 ○

- 8 A Review on Conductive and Transparent Materials Used in the Design of Transparent Antennas. **2023**, 11, 11-25 ○
- 7 A five-peaks graphene absorber with multiple adjustable and high sensitivity in the far infrared band. **2023**, 109960 ○
- 6 Recent Progress on Transparent Microelectrode-Based Soft Bioelectronic Devices for Neuroscience and Cardiac Research. ○
- 5 Bandwidth-tunable absorption enhancement of visible and near-infrared light in monolayer graphene by localized plasmon resonances and their diffraction coupling. **2023**, 106471 ○
- 4 Four-wave mixing properties in a bilayer graphene nanosystem. **2023**, 0 ○
- 3 Hydrogen-Terminated Two-Dimensional Germanane/Silicane Alloys as Self-Powered Photodetectors and Sensors. ○
- 2 Structuring thermal transport in pristine graphene with h-BN nanorings. **2023**, 180, 111414 ○
- 1 Two-dimensional material integrated micro-nano fiber, the new opportunity in all-optical signal processing. **2023**, ○