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## The structure of suspended graphene sheets

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2272	Quantum critical point in graphene approached in the limit of infinitely strong Coulomb interaction. <b>2007</b> , 75,	168
2271	AC CONDUCTIVITY OF GRAPHENE: FROM TIGHT-BINDING MODEL TO 2 + 1-DIMENSIONAL QUANTUM ELECTRODYNAMICS. <b>2007</b> , 21, 4611-4658	305
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2265	Epitaxial graphene. <b>2007</b> , 143, 92-100	733
2264	Nano-graphene structures deposited by N-IR pulsed laser ablation of graphite on Si. <b>2007</b> , 254, 1273-1278	32
2263	This year in Nature. <i>Nature</i> , <b>2007</b> , 450, 1131-1131	50.4

2262	The rise of graphene. <b>2007</b> , 6, 183-91	30572
2261	Detection of individual gas molecules adsorbed on graphene. <b>2007</b> , 6, 652-5	6263
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2257	Graphene: from strength to strength. <b>2007</b> , 2, 199-201	68
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2250	Electron cryo-microscopy of biological specimens on conductive titanium-silicon metal glass films. <b>2008</b> , 108, 698-705	43
2249	Novel carbon nanosheets as support for ultrahigh-resolution structural analysis of nanoparticles. <b>2008</b> , 108, 885-92	50
2248	Evanescent Wave Transport and Shot Noise in Graphene: Ballistic Regime and Effect of Disorder. <b>2008</b> , 153, 374-392	43
2247	Processing of nanographene platelets (NGPs) and NGP nanocomposites: a review. <b>2008</b> , 43, 5092-5101	381
2246	Critical role of laser wavelength on carbon films grown by PLD of graphite. <b>2008</b> , 93, 751-758	20
2245	Raman spectroscopy and imaging of graphene. <b>2008</b> , 1, 273-291	989

2244	Side-gated transport in focused-ion-beam-fabricated multilayered graphene nanoribbons. <b>2008</b> , 4, 716-20	37
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2242	STEM plasmon spectroscopy of free standing graphene. <b>2008</b> , 205, 2265-2269	18
2241	Stability analysis of graphene nanoribbons by molecular dynamics simulations. <b>2008</b> , 245, 695-700	8
2240	Statistical analysis of atomic force microscopy and Raman spectroscopy data for estimation of graphene layer numbers. <b>2008</b> , 245, 2055-2059	47
2239	Entry to coronene chemistry-making large electron donors and acceptors. <b>2008</b> , 14, 6322-5	52
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2236	Versatile Approach for Integrative and Functionalized Tubes by Strain Engineering of Nanomembranes on Polymers. <b>2008</b> , 20, 4085-4090	537
2235	Scattering mechanisms and Boltzmann transport in graphene. <b>2008</b> , 40, 1022-1025	66
2234	Internal lattice relaxation of single-layer graphene under in-plane deformation. <b>2008</b> , 56, 1609-1623	146
2233	Theoretical study of third-order nonlinear optical properties in square nanographenes with open-shell singlet ground states. <b>2008</b> , 467, 120-125	93
2232	Precipitation and delamination of crystalline graphite bubbles from molten iron, nickel and cobalt by splat cooling. <b>2008</b> , 46, 940-948	0
2231	Applications of single-layered graphene sheets as mass sensors and atomistic dust detectors. <b>2008</b> , 145, 168-172	167
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2229	Potential application of single-layered graphene sheet as strain sensor. <b>2008</b> , 147, 336-340	136
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2226	Graphene: Electronic Properties. <b>2008</b> , 1-6	3
2225	Transparent, conductive graphene electrodes for dye-sensitized solar cells. <b>2008</b> , 8, 323-7	3849
2224	Dirac equation description of the electronic states and magnetic properties of a square graphene quantum dot. <b>2008</b> , 19, 435401	21
2223	Conductivity of graphene: How to distinguish between samples with short- and long-range scatterers. <b>2008</b> , 83, 17001	22
2222	Graphene terahertz generators for molecular circuits and sensors. <b>2008</b> , 112, 13699-705	65
2221	Thermal stability of graphene edge structure and graphene nanoflakes. <b>2008</b> , 128, 094707	68
2220	Periodized discrete elasticity models for defects in graphene. <b>2008</b> , 78,	38
2219	Edge-stress-induced warping of graphene sheets and nanoribbons. <b>2008</b> , 101, 245501	298
2218	Magnetic correlations at graphene edges: basis for novel spintronics devices. <b>2008</b> , 100, 047209	566
2217	Large reversible Li storage of graphene nanosheet families for use in rechargeable lithium ion batteries. <b>2008</b> , 8, 2277-82	2453
2216	Raman spectra of epitaxial graphene on SiC and of epitaxial graphene transferred to SiO <sub>2</sub> . <b>2008</b> , 8, 4320-5	356
2215	Superior thermal conductivity of single-layer graphene. <b>2008</b> , 8, 902-7	9908
2214	Modeling disorder in graphene. <b>2008</b> , 77,	311
2213	Imaging and dynamics of light atoms and molecules on graphene. <i>Nature</i> , <b>2008</b> , 454, 319-22	50.4 426
2212	Approaching ballistic transport in suspended graphene. <b>2008</b> , 3, 491-5	2462
2211	Highly conducting graphene sheets and Langmuir-Blodgett films. <b>2008</b> , 3, 538-42	1750
2210	High-yield production of graphene by liquid-phase exfoliation of graphite. <b>2008</b> , 3, 563-8	4715
2209	Graphene 2.0. <b>2008</b> , 3, 517	4

2208	Free-standing graphene at atomic resolution. <b>2008</b> , 3, 676-81	530
2207	Electron spin relaxation and quantum localization in carbon nanoparticle: Electron spin echo studies. <b>2008</b> , 77,	17
2206	Periodically rippled graphene: growth and spatially resolved electronic structure. <b>2008</b> , 100, 056807	528
2205	Graphene layer growth chemistry: five- and six-member ring flip reaction. <b>2008</b> , 112, 2125-30	34
2204	Half-metallicity in undoped and boron doped graphene nanoribbons in the presence of semilocal exchange-correlation interactions. <b>2008</b> , 112, 1333-5	177
2203	Reversible basal plane hydrogenation of graphene. <b>2008</b> , 8, 4597-602	479
2202	Impermeable atomic membranes from graphene sheets. <b>2008</b> , 8, 2458-62	2140
2201	Direct imaging of lattice atoms and topological defects in graphene membranes. <b>2008</b> , 8, 3582-6	958
2200	Imaging mechanical vibrations in suspended graphene sheets. <b>2008</b> , 8, 1399-403	291
2199	Facile Synthesis and Characterization of Graphene Nanosheets. <b>2008</b> , 112, 8192-8195	1697
2198	The growth and morphology of epitaxial multilayer graphene. <b>2008</b> , 20, 323202	536
2197	The two-dimensional phase of boron nitride: Few-atomic-layer sheets and suspended membranes. <b>2008</b> , 92, 133107	781
2196	Bending properties of single functionalized graphene sheets probed by atomic force microscopy. <b>2008</b> , 2, 2577-84	167
2195	New method for atomistic modeling of the microstructure of activated carbons using hybrid reverse Monte Carlo simulation. <b>2008</b> , 24, 7912-22	100
2194	Vibrational analysis of single-layered graphene sheets. <b>2008</b> , 19, 085702	121
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2192	Electronic structure of graphene and doping effect on SiO <sub>2</sub> . <b>2008</b> , 78,	118
2191	Graphene oxidation: thickness-dependent etching and strong chemical doping. <b>2008</b> , 8, 1965-70	704

2190	Graphene nanoFlakes with large spin. <b>2008</b> , 8, 241-5	393
2189	Theory of the evolution of phonon spectra and elastic constants from graphene to graphite. <b>2008</b> , 78,	74
2188	Pseudomagnetic fields and ballistic transport in a suspended graphene sheet. <b>2008</b> , 101, 226804	127
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2186	Nanomechanical properties of few-layer graphene membranes. <b>2008</b> , 92, 063111	302
2185	Catalytic role of carbons in methane decomposition for CO- and CO <sub>2</sub> -free hydrogen generation. <b>2008</b> , 128, 214702	31
2184	Raman spectroscopy of epitaxial graphene on a SiC substrate. <b>2008</b> , 77,	429
2183	Ripples in epitaxial graphene on the Si-terminated SiC(0001) surface. <b>2008</b> , 77,	145
2182	Preparing graphitic nanoribbons from ultrathin electrospun poly(methyl methacrylate) nanofibers by electron beam irradiation. <b>2008</b> ,	
2181	Transport properties of branched graphene nanoribbons. <b>2008</b> , 92, 042115	31
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2179	On the modeling of resistance in graphene nanoribbon (GNR) for future interconnect applications. <b>2008</b> ,	26
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2174	Graphene-based single-bacterium resolution biodevice and DNA transistor: interfacing graphene derivatives with nanoscale and microscale biocomponents. <b>2008</b> , 8, 4469-76	1038
2173	Adsorption of self-avoiding tethered membranes: A Monte Carlo simulation study. <b>2008</b> , 129, 215103	3



2172	Dislocations in graphene. <b>2008</b> , 10, 053021	72
2171	Gauge fields and curvature in graphene. <b>2008</b> , 129, 012001	24
2170	Macroscopic graphene membranes and their extraordinary stiffness. <b>2008</b> , 8, 2442-6	528
2169	Thermodynamic stability of novel boron sheet configurations. <b>2008</b> , 112, 10217-20	38
2168	Self-passivating edge reconstructions of graphene. <b>2008</b> , 101, 115502	583
2167	Giant intrinsic carrier mobilities in graphene and its bilayer. <b>2008</b> , 100, 016602	2509
2166	Survival of the Dirac points in rippled graphene. <b>2008</b> , 100, 256405	14
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2163	Total color difference for rapid and accurate identification of graphene. <b>2008</b> , 2, 1625-33	121
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2160	Graphene-based liquid crystal device. <b>2008</b> , 8, 1704-8	1319
2159	Effect of disorder on the ground-state properties of graphene. <b>2008</b> , 77,	19
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2156	Single-molecule electron diffraction imaging with charge replacement. <b>2008</b> , 10, 093015	6
2155	Supramolecular assemblies of surfactants and lipid derivatives on free-standing hybrid nanofilms. <b>2008</b> , 4, 797-804	4

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2148	Scanning Tunneling Microscope Studies of Ultrathin Graphitic (Graphene) Films on an Insulating Substrate under Ambient Conditions. <b>2008</b> , 112, 6681-6688	12
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2141	The synthesis and structure of suspended ultra-thin Si(3)N(4) nanosheets. <b>2008</b> , 19, 485601	3
2140	Temperature dependent structural changes of graphene layers on 6H-SiC(0001) surfaces. <b>2008</b> , 20, 225017	23
2139	Dirac fermions in a power-law correlated random vector potential. <b>2008</b> , 82, 57008	12
2138	Chiral selective tunneling induced negative differential resistance in zigzag graphene nanoribbon: A theoretical study. <b>2008</b> , 92, 133114	81
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2135	Flexural phonons in free-standing graphene. <b>2008</b> , 100, 076801	188
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2118	Structure of physical crystalline membranes within the self-consistent screening approximation. <b>2009</b> , 80, 041117	68
2117	Minimal conductivity of rippled graphene with topological disorder. <b>2009</b> , 79,	20
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2112	Pressure-temperature phase diagram for shapes of vesicles: A coarse-grained molecular dynamics study. <b>2009</b> , 95, 143104	9
2111	Conductivity tensor of graphene through reflection of microwave measurements. <b>2009</b> , 42, 055403	2
2110	Instability of two-dimensional graphene: Breaking sp <sup>2</sup> bonds with soft x rays. <b>2009</b> , 80,	38
2109	Linear response and the Thomas-Fermi approximation in undoped graphene. <b>2009</b> , 80,	29
2108	Lattice field theory simulations of graphene. <b>2009</b> , 79,	158
2107	Magnetism and magnetotransport in disordered graphene. <b>2009</b> , 80,	31
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2105	Koshino-Taylor effect in graphene. <b>2009</b> , 79,	3
2104	Control of cooperative switching of microwrinkle orientations by nanopatterns. <b>2009</b> , 19, 033104	8
2103	Insights into few-layer epitaxial graphene growth on 4H-SiC(0001f) substrates from STM studies. <b>2009</b> , 79,	192
2102	Quantum Hall plateau transition in graphene with spatially correlated random hopping. <b>2009</b> , 103, 156804	33
2101	The transport properties of boron nanostructures. <b>2009</b> , 94, 193116	10

2100	Morphology of Graphene on Step-Controlled Sapphire Surfaces. <b>2009</b> , 2, 075502	35
2099	In situ observation of graphene sublimation and multi-layer edge reconstructions. <b>2009</b> , 106, 10103-8	186
2098	2D ISING MODEL WITH COMPETING INTERACTIONS AND ITS APPLICATION TO CLUSTERS AND ARRAYS OF RINGS, GRAPHENE AND ADIABATIC QUANTUM COMPUTING. <b>2009</b> , 23, 3951-3967	4
2097	Dependence of Conductance of Corrugated Graphene Quantum Dot on Geometrical Features. <b>2009</b> , 52, 960-964	2
2096	Effect of strain on geometric and electronic structures of graphene on a Ru(0001) surface. <b>2009</b> , 18, 3008-3013	17
2095	Molecular dynamics study of energetics of graphene flakes. <b>2009</b> , 106, 114305	15
2094	Regular conductance fluctuations indicative of quasi-ballistic transport in bilayer graphene. <b>2009</b> , 21, 382202	19
2093	Substrate coupling effect to transport in nanographene ribbon. <b>2009</b> , 21, 235302	1
2092	Gaps and tails in graphene and graphane. <b>2009</b> , 11, 095006	8
2091	Time evolution of charge conductivity of graphene bilayers. <b>2009</b> , 87, 57002	5
2090	Hierarchical graphene nanoribbon assemblies feature unique electronic and mechanical properties. <b>2009</b> , 20, 375704	23
2089	Development of a prototype miniature silicon microgyroscope. <b>2009</b> , 9, 4586-605	12
2088	Local density of states and scanning tunneling currents in graphene. <b>2009</b> , 11, 095007	26
2087	Modeling, Analysis, and Design of Graphene Nano-Ribbon Interconnects. <b>2009</b> , 56, 1567-1578	240
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2085	A Semianalytical Model of Bilayer-Graphene Field-Effect Transistor. <b>2009</b> , 56, 2979-2986	49
2084	Carbon Nanosheets for Polymeric Nanocomposites with High Thermal Conductivity. <b>2009</b> , 21, 2088-2092	299
2083	Synthesis of Large-Area Graphene Layers on Poly-Nickel Substrate by Chemical Vapor Deposition: Wrinkle Formation. <b>2009</b> , 21, 2328-2333	766

2082	One Nanometer Thin Carbon Nanosheets with Tunable Conductivity and Stiffness. <b>2009</b> , 21, 1233-1237	187
2081	Fabrication of Graphene Polymer Nanocomposites With Higher-Order Three-Dimensional Architectures. <b>2009</b> , 21, 2180-2184	539
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2079	Large-Scale Fabrication of Boron Nitride Nanosheets and Their Utilization in Polymeric Composites with Improved Thermal and Mechanical Properties. <b>2009</b> , 21, 2889-2893	1282
2078	Zweidimensionale Polymere: nur ein Traum von Synthetikern?. <b>2009</b> , 121, 1048-1089	106
2077	The formation of large-area conducting graphene-like platelets. <b>2009</b> , 15, 8235-40	71
2076	Rational monomer design towards 2D polymers: synthesis of a macrocycle with three 1,8-anthrylene units. <b>2009</b> , 15, 8955-60	28
2075	Graphen, das neue zweidimensionale Nanomaterial. <b>2009</b> , 121, 7890-7916	196
2074	A Strategy for Producing Pure Single-Layer Graphene Sheets Based on a Confined Self-Assembly Approach. <b>2009</b> , 121, 5978-5982	66
2073	Two-dimensional polymers: just a dream of synthetic chemists?. <b>2009</b> , 48, 1030-69	590
2072	Graphene: the new two-dimensional nanomaterial. <b>2009</b> , 48, 7752-77	3344
2071	A strategy for producing pure single-layer graphene sheets based on a confined self-assembly approach. <b>2009</b> , 48, 5864-8	208
2070	Atomistic simulations of mechanical properties of graphene nanoribbons. <b>2009</b> , 373, 3359-3362	127
2069	Third-order nonlinear optical properties of trigonal, rhombic and bow-tie graphene nanoflakes with strong structural dependence of diradical character. <b>2009</b> , 480, 278-283	47
2068	Fabrication of metal nanoclusters on graphene grown on Ru(0001). <b>2009</b> , 54, 2446-2450	34
2067	Mesomorphic lamella rolling of au in vacuum. <b>2009</b> , 4, 1286-96	3
2066	Facile, noncovalent decoration of graphene oxide sheets with nanocrystals. <b>2009</b> , 2, 192-200	136
2065	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

2064	Nanotopography of graphene. <b>2009</b> , 206, 2115-2119	24
2063	Elastic and frictional properties of graphene. <b>2009</b> , 246, 2562-2567	285
2062	Quanten-Hall-Effekt in Graphen. Ein- und doppellagiges Graphen im Magnetfeld. <b>2009</b> , 40, 124-131	1
2061	Synthesis of amphiphilic graphene nanoplatelets. <b>2009</b> , 5, 82-5	325
2060	Fabrication of flexible metal-nanoparticle films using graphene oxide sheets as substrates. <b>2009</b> , 5, 2212-7	287
2059	Controlled carbon-nanotube junctions self-assembled from graphene nanoribbons. <b>2009</b> , 5, 2802-6	20
2058	Ultraflat graphene. <i>Nature</i> , <b>2009</b> , 462, 339-41	50.4 527
2057	Gram-scale production of graphene based on solvothermal synthesis and sonication. <b>2009</b> , 4, 30-3	903
2056	Controlled ripple texturing of suspended graphene and ultrathin graphite membranes. <b>2009</b> , 4, 562-6	1053
2055	Structural transformations in graphene studied with high spatial and temporal resolution. <b>2009</b> , 4, 500-4	191
2054	Origin of spatial charge inhomogeneity in graphene. <b>2009</b> , 5, 722-726	574
2053	Spin-resolved quantum interference in graphene. <b>2009</b> , 5, 894-897	47
2052	Structure, dynamic properties, and phase transitions of tethered membranes: a Monte Carlo simulation study. <b>2009</b> , 1161, 397-406	1
2051	Deposition and FIB direct patterning of nanowires and nanorings into suspended sheets of graphene. <b>2009</b> , 86, 882-884	29
2050	Elastic properties of single-layered graphene sheet. <b>2009</b> , 149, 91-95	199
2049	Gauge fields, ripples and wrinkles in graphene layers. <b>2009</b> , 149, 1140-1143	73
2048	The edge state of nanographene and the magnetism of the edge-state spins. <b>2009</b> , 149, 1144-1150	111
2047	Atomic and subnanometer resolution in ambient conditions by atomic force microscopy. <b>2009</b> , 64, 99-121	138

2046	Graphene on metal surfaces. <b>2009</b> , 603, 1841-1852	826
2045	Carbon nanosheets as the electrode material in supercapacitors. <b>2009</b> , 194, 1208-1212	150
2044	Fabrication of a graphene/cuprous oxide composite. <b>2009</b> , 182, 2486-2490	191
2043	Experimental studies of the electronic structure of graphene. <b>2009</b> , 84, 380-413	59
2042	Theoretical study on third-order nonlinear optical properties in hexagonal graphene nanoflakes: Edge shape effect. <b>2009</b> , 477, 355-359	68
2041	Electrochemical performance of graphene nanosheets as anode material for lithium-ion batteries. <b>2009</b> , 11, 1320-1324	573
2040	Synthesis and characterization of mesoporous carbon nano-dendrites with graphitic ultra-thin walls and their application to supercapacitor electrodes. <b>2009</b> , 47, 306-312	65
2039	Restoring electrical conductivity of dielectrophoretically assembled graphite oxide sheets by thermal and chemical reduction techniques. <b>2009</b> , 47, 1520-1525	138
2038	Chiral carbon nanoscrolls with a polygonal cross-section. <b>2009</b> , 47, 3099-3105	33
2037	Ion irradiation and defect formation in single layer graphene. <b>2009</b> , 47, 3201-3207	186
2036	Highly efficient and large-scale synthesis of graphene by electrolytic exfoliation. <b>2009</b> , 47, 3242-3246	276
2035	Cationic surfactant mediated exfoliation of graphite into graphene flakes. <b>2009</b> , 47, 3288-3294	259
2034	Catalytic unzipping of carbon nanotubes to few-layer graphene sheets under microwaves irradiation. <b>2009</b> , 371, 22-30	46
2033	Graphene nanosheets for enhanced lithium storage in lithium ion batteries. <b>2009</b> , 47, 2049-2053	1153
2032	Control of graphene's properties by reversible hydrogenation: evidence for graphane. <b>2009</b> , 323, 610-3	3338
2031	Gap opening in the zeroth Landau level of graphene. <b>2009</b> , 80,	111
2030	Transport in disordered graphene nanoribbons. <b>2009</b> , 79,	74
2029	Fast and Facile Preparation of Graphene Oxide and Reduced Graphene Oxide Nanoplatelets. <b>2009</b> , 21, 3514-3520	737



2028	Electronic structure of defects in a boron nitride monolayer. <b>2009</b> , 67, 507-512	137
2027	Quantum transport in armchair graphene ribbons: analytical tight-binding solutions for propagation through step-like and barrier-like potentials. <b>2009</b> , 69, 383-388	9
2026	Low-energy electron transport in semimetal graphene ribbon junctions. <b>2009</b> , 72, 203-209	6
2025	Graphene: status and prospects. <b>2009</b> , 324, 1530-4	10415
2024	Phonon softening and crystallographic orientation of strained graphene studied by Raman spectroscopy. <b>2009</b> , 106, 7304-8	498
2023	The electronic properties of graphene. <b>2009</b> , 81, 109-162	17608
2022	Lenosky energy and the phonon dispersion of graphene. <b>2009</b> , 80,	26
2021	Chemical functionalization of graphene. <b>2009</b> , 21, 344205	286
2020	Thickness-dependent reversible hydrogenation of graphene layers. <b>2009</b> , 3, 1781-8	281
2019	Fabrication of graphene layers from multiwalled carbon nanotubes using high dc pulse. <b>2009</b> , 95, 083103	28
2018	. <b>2009</b> , 37, 726-739	33
2017	Atomic and electronic structure of graphene-oxide. <b>2009</b> , 9, 1058-63	921
2016	Nanographene and nanodiamond; new members in the nanocarbon family. <b>2009</b> , 4, 796-804	41
2015	Layer-by-layer self-assembly of graphene nanoplatelets. <b>2009</b> , 25, 6122-8	248
2014	Monolayer honeycomb structures of group-IV elements and III-V binary compounds: First-principles calculations. <b>2009</b> , 80,	1401
2013	Characterization of nanomaterials by physical methods. <b>2009</b> , 2, 435-62	82
2012	Liquid phase production of graphene by exfoliation of graphite in surfactant/water solutions. <b>2009</b> , 131, 3611-20	1821
2011	A green approach to the synthesis of graphene nanosheets. <b>2009</b> , 3, 2653-9	1894

2010	Scaling properties of flexible membranes from atomistic simulations: Application to graphene. <b>2009</b> , 80,	126
2009	Adsorption of potassium on graphite: Work function calculations. <b>2009</b> , 35, 847-849	4
2008	Adsorption of sodium and cesium on graphite: Work function calculations. <b>2009</b> , 35, 998-1000	6
2007	Topology of nanometric graphite films. <b>2009</b> , 45, 558-561	1
2006	Claromatic Carbon Nanostructures. <b>2009</b> , 113, 19123-19133	62
2005	Thermal conductivity of graphene nanoribbons. <b>2009</b> , 95, 163103	340
2004	Emerging nanodevice paradigm. <b>2009</b> , 5, 1-19	5
2003	Processing and characterization of ultrathin carbon coatings on glass. <b>2009</b> , 1, 927-33	20
2002	Strained graphene: tight-binding and density functional calculations. <b>2009</b> , 11, 115002	171
2001	Quantum manifestations of graphene edge stress and edge instability: a first-principles study. <b>2009</b> , 102, 166404	212
2000	Formation of Monolayer Graphene by Annealing Sacrificial Nickel Thin Films. <b>2009</b> , 113, 16565-16567	64
1999	Spatially resolved spectroscopy of monolayer graphene on SiO <sub>2</sub> . <b>2009</b> , 79,	206
1998	Random-gap model for graphene and graphene bilayers. <b>2009</b> , 102, 126802	35
1997	High-quality Graphenes via a facile quenching method for field-effect transistors. <b>2009</b> , 9, 1374-7	80
1996	Coulomb Screening and Plasmon Excitation in Graphene at Finite Temperature. <b>2009</b> , 52, 361-364	4
1995	Few-layer graphene as a support film for transmission electron microscopy imaging of nanoparticles. <b>2009</b> , 1, 2886-92	26
1994	Wrinkling of monolayer graphene: A study by molecular dynamics and continuum plate theory. <b>2009</b> , 80,	71
1993	Theory of the spontaneous buckling of doped graphene. <b>2009</b> , 79,	27

1992	Transition from ballistic to diffusive behavior of graphene ribbons in the presence of warping and charged impurities. <b>2009</b> , 80,	28
1991	Elastic buckling of single-layered graphene sheet. <b>2009</b> , 45, 266-270	111
1990	Is graphene in vacuum an insulator?. <b>2009</b> , 102, 026802	247
1989	The formation of atomic nanoclusters on graphene sheets. <b>2009</b> , 20, 135602	79
1988	Chemistry at the graphene-SiO <sub>2</sub> interface. <b>2009</b> , 95, 143125	50
1987	Nonlinear bending and stretching of a circular graphene sheet under a central point load. <b>2009</b> , 20, 075702	82
1986	Graphene, the new nanocarbon. <b>2009</b> , 19, 2457	584
1985	Enhancement of Chemical Activity in Corrugated Graphene. <b>2009</b> , 113, 14176-14178	173
1984	Electronic structure of two-dimensional crystals from ab initio theory. <b>2009</b> , 79,	851
1983	Carrier scattering, mobilities, and electrostatic potential in monolayer, bilayer, and trilayer graphene. <b>2009</b> , 80,	343
1982	Surface and interference coenhanced Raman scattering of graphene. <b>2009</b> , 3, 933-9	81
1981	Controlled formation of sharp zigzag and armchair edges in graphitic nanoribbons. <b>2009</b> , 323, 1701-5	592
1980	Open and closed edges of graphene layers. <b>2009</b> , 102, 015501	476
1979	Intrinsic half-metallicity in modified graphene nanoribbons. <b>2009</b> , 102, 096601	365
1978	Scattering of electrons in graphene by clusters of impurities. <b>2009</b> , 79,	91
1977	Analytic theory of ballistic transport in disordered graphene. <b>2009</b> , 79,	69
1976	Size and chirality dependent elastic properties of graphene nanoribbons under uniaxial tension. <b>2009</b> , 9, 3012-5	653
1975	Analogy between one-dimensional chain models and graphene. <b>2009</b> , 77, 595-601	12

1974	All graphene electromechanical switch fabricated by chemical vapor deposition. <b>2009</b> , 95, 183105	126
1973	Curvature-enhanced spin-orbit coupling in a carbon nanotube. <b>2009</b> , 80,	83
1972	Graphitic Nanoribbons with Dibenzo[e,l]pyrene Repeat Units: Synthesis and Self-Assembly. <b>2009</b> , 42, 6878-6884	74
1971	Evolving properties of two-dimensional materials: from graphene to graphite. <b>2009</b> , 21, 335502	61
1970	Edge elastic properties of defect-free single-layer graphene sheets. <b>2009</b> , 94, 101904	102
1969	AuPt <sub>n</sub> clusters adsorbed on graphene studied by first-principles calculations. <b>2009</b> , 80,	65
1968	Thickness-dependent bending modulus of hexagonal boron nitride nanosheets. <b>2009</b> , 20, 385707	111
1967	A metallic graphene layer adsorbed with lithium. <b>2009</b> , 94, 163115	79
1966	Time-Domain Ab Initio Study of Nonradiative Decay in a Narrow Graphene Ribbon. <b>2009</b> , 113, 14067-14070	27
1965	NONLINEAR MECHANICS OF SINGLE-ATOMIC-LAYER GRAPHENE SHEETS. <b>2009</b> , 01, 443-467	206
1964	Real-time study of graphene's phase transition in polymer matrices. <b>2009</b> , 9, 2129-32	47
1963	Finite temperature lattice properties of graphene beyond the quasiharmonic approximation. <b>2009</b> , 102, 046808	363
1962	Evidence for strain-induced local conductance modulations in single-layer graphene on SiO <sub>2</sub> . <b>2009</b> , 9, 2542-6	111
1961	Elastic bending modulus of monolayer graphene. <b>2009</b> , 42, 102002	276
1960	Direct imaging of rotational stacking faults in few layer graphene. <b>2009</b> , 9, 102-6	204
1959	Elasticity of two-dimensional crystalline monolayers of fatty acid salts at an air/water surface. <b>2009</b> , 5, 203-207	12
1958	Intrinsic and extrinsic corrugation of monolayer graphene deposited on SiO <sub>2</sub> . <b>2009</b> , 102, 076102	294
1957	Graphitization at interface between amorphous carbon and liquid gallium for fabricating large area graphene sheets. <b>2009</b> , 27, 3063	46

1956	Image potential states in graphene. <b>2009</b> , 80,	129
1955	Photocatalytic Reduction of Graphene Oxide Nanosheets on TiO <sub>2</sub> Thin Film for Photoinactivation of Bacteria in Solar Light Irradiation. <b>2009</b> , 113, 20214-20220	798
1954	Rippling of graphene. <b>2009</b> , 85, 46002	66
1953	Graphene sheets from worm-like exfoliated graphite. <b>2009</b> , 19, 3367	173
1952	Graphene at the edge: stability and dynamics. <b>2009</b> , 323, 1705-8	1042
1951	Scanning tunneling microscopy characterization of the electrical properties of wrinkles in exfoliated graphene monolayers. <b>2009</b> , 9, 4446-51	208
1950	Stable Nafion-functionalized graphene dispersions for transparent conducting films. <b>2009</b> , 20, 465605	58
1949	Low-temperature exfoliated graphenes: vacuum-promoted exfoliation and electrochemical energy storage. <b>2009</b> , 3, 3730-6	633
1948	Atomically thin hexagonal boron nitride probed by ultrahigh-resolution transmission electron microscopy. <b>2009</b> , 80,	407
1947	Selective sputtering and atomic resolution imaging of atomically thin boron nitride membranes. <b>2009</b> , 9, 2683-9	436
1946	Pedestrian index theorem $\square$ la Aharonov-Casher for bulk threshold modes in corrugated multilayer graphene. <b>2009</b> , 87, 47008	36
1945	Spin Control Without Magnetic Fields. <b>2009</b> , 2,	35
1944	Snap-Through Instability of Graphene Morphology on Substrates. <b>2009</b> ,	
1943	Properties of $\square$ Electrons in Graphene Nanoribbons and Nanographenes. <b>2010</b> , 433-461	1
1942	Production of Graphite Nanosheets by Low-Current Plasma Discharge in Liquid Ethanol. <b>2010</b> , 51, 1455-1459	11
1941	????????????????DNA???????. <b>2010</b> , 7, 32-34	
1940	Graphene metrology and devices. <b>2010</b> , 101, 175-181	1
1939	The dislocations in graphene with the correction from lattice effect. <b>2010</b> , 73, 489-493	12

1938	Ripples of AA and AB stacking bilayer graphenes. <b>2010</b> , 78, 103-109	7
1937	Corrugated graphene: effects of in-plane and tilted out-of-plane magnetic fields. <b>2010</b> , 78, 393-397	6
1936	DNA translocation through graphene nanopores. <b>2010</b> , 10, 3163-7	782
1935	First-principles study of graphene edge properties and flake shapes. <b>2010</b> , 81,	95
1934	Properties of graphene: a theoretical perspective. <b>2010</b> , 59, 261-482	827
1933	Synthesis of Graphene and Its Applications: A Review. <b>2010</b> , 35, 52-71	1196
1932	Toxicity of graphene and graphene oxide nanowalls against bacteria. <b>2010</b> , 4, 5731-6	1852
1931	Graphene-based materials in electrochemistry. <b>2010</b> , 39, 3157-80	1200
1930	Colloquium: The transport properties of graphene: An introduction. <b>2010</b> , 82, 2673-2700	772
1929	Carbon nanotube thin films: fabrication, properties, and applications. <b>2010</b> , 110, 5790-844	786
1928	Novel properties of graphene nanoribbons: a review. <b>2010</b> , 20, 8207	301
1927	Magnetism of solids resulting from spin polarization of p orbitals. <b>2010</b> , 22, 073202	124
1926	DNA mediated water-dispersible graphene fabrication and gold nanoparticle-graphene hybrid. <b>2010</b> , 46, 2844-6	88
1925	Graphene nanomesh by ZnO nanorod photocatalysts. <b>2010</b> , 4, 4174-80	612
1924	Plasticity in carbon nanotubes: Cooperative conservative dislocation motion. <b>2010</b> , 81,	17
1923	Organic functionalisation of graphenes. <b>2010</b> , 46, 1766-8	235
1922	Exfoliation and chemical modification using microwave irradiation affording highly functionalized graphene. <b>2010</b> , 4, 7499-507	131
1921	Ion and electron irradiation-induced effects in nanostructured materials. <b>2010</b> , 107, 071301	759

1920	Hysteresis of electronic transport in graphene transistors. <b>2010</b> , 4, 7221-8	439
1919	Molecular dynamics simulations of nanopore processing in a graphene sheet by using gas cluster ion beam. <b>2010</b> , 98, 787-794	24
1918	Signature of multiradical character in second hyperpolarizabilities of rectangular graphene nanoflakes. <b>2010</b> , 489, 212-218	88
1917	Buckled graphene: A model study based on density functional theory. <b>2010</b> , 498, 157-161	6
1916	Phonon-mediated electron pairing in graphene. <b>2010</b> , 374, 2785-2791	12
1915	Palladium nanoparticle-graphene hybrids as active catalysts for the Suzuki reaction. <b>2010</b> , 3, 429-437	261
1914	Efficient and large-scale synthesis of few-layered graphene using an arc-discharge method and conductivity studies of the resulting films. <b>2010</b> , 3, 661-669	233
1913	Microwave synthesis of large few-layer graphene sheets in aqueous solution of ammonia. <b>2010</b> , 3, 126-137	105
1912	Facile synthesis and application of Ag-chemically converted graphene nanocomposite. <b>2010</b> , 3, 339-349	372
1911	Beyond Human Proportions: Archaeology of the Mega and the Nano. <b>2010</b> , 6, 138-149	5
1910	Electrical Conductivity of Graphene Composites with In and In-Ga Alloy. <b>2010</b> , 39, 1268-1276	22
1909	Snap-Through Instability of Graphene on Substrates. <b>2009</b> , 5, 169-173	39
1908	High-Field Electronic Properties of Graphene. <b>2010</b> , 159, 238-244	4
1907	Nanomechanical studies of the compressive behavior of carbon fibers. <b>2010</b> , 45, 6845-6848	4
1906	Long-term dynamic stability of discrete dislocations in graphene at finite temperature. <b>2010</b> , 166, 215-223	16
1905	Current/Voltage Characteristics of Graphene p-n Junctions. <b>2010</b> , 57, 209-214	27
1904	Graphene on Au(111): a highly conductive material with excellent adsorption properties for high-resolution bio/nanodetection and identification. <b>2010</b> , 11, 585-9	180
1903	Smoothing the ripples. <b>2010</b> , 11, 1833-5	1

1902	Thinnest two-dimensional nanomaterial-graphene for solar energy. <b>2010</b> , 3, 782-96	185
1901	Self-Assembled GrapheneEnzyme Hierarchical Nanostructures for Electrochemical Biosensing. <b>2010</b> , 20, 3366-3372	242
1900	All-carbon scaffolds by rational design. <b>2010</b> , 22, 803-12	275
1899	Conjugated-polymer-functionalized graphene oxide: synthesis and nonvolatile rewritable memory effect. <b>2010</b> , 22, 1731-5	359
1898	Superhydrophobic to superhydrophilic wetting control in graphene films. <b>2010</b> , 22, 2151-4	321
1897	Specific protein detection using thermally reduced graphene oxide sheet decorated with gold nanoparticle-antibody conjugates. <b>2010</b> , 22, 3521-6	411
1896	Graphene and graphene oxide: synthesis, properties, and applications. <b>2010</b> , 22, 3906-24	7620
1895	Electric current induced reduction of graphene oxide and its application as gap electrodes in organic photoswitching devices. <b>2010</b> , 22, 5008-12	81
1894	Extrinsic corrugation-assisted mechanical exfoliation of monolayer graphene. <b>2010</b> , 22, 5374-7	52
1893	Kohlenstoffnanomaterialien für Biosensoren: Nanoröhren oder Graphen – was eignet sich besser?. <b>2010</b> , 122, 2160-2185	51
1892	Amphiphilic Graphene Composites. <b>2010</b> , 122, 9616-9619	27
1891	Carbon nanomaterials in biosensors: should you use nanotubes or graphene?. <b>2010</b> , 49, 2114-38	1188
1890	Amphiphilic graphene composites. <b>2010</b> , 49, 9426-9	301
1889	Preparation and characterization of graphene/poly(vinyl alcohol) nanocomposites. <b>2010</b> , 118, 275-279	136
1888	Solvothermal synthesis and characterization of sandwich-like graphene/ZnO nanocomposites. <b>2010</b> , 256, 2826-2830	284
1887	Preparation and characterization of graphene/CdS nanocomposites. <b>2010</b> , 257, 747-751	109
1886	Covalent synthesis of organophilic chemically functionalized graphene sheets. <b>2010</b> , 348, 377-83	73
1885	Principles and applications of micro and nanoscale wrinkles. <b>2010</b> , 70, 209-224	116



1884	Fabrication and electrical properties of graphene nanoribbons. <b>2010</b> , 70, 341-353	68
1883	Charge inhomogeneity in a single and bilayer graphene. <b>2010</b> , 405, 2241-2244	14
1882	Landau level broadening in graphene with long-range disorder Robustness of the n=0 level. <b>2010</b> , 42, 759-762	6
1881	Production of graphene sheets by a simple helium arc-discharge. <b>2010</b> , 42, 1267-1271	34
1880	Spin Hall effect in a curved graphene with spin-orbit interaction. <b>2010</b> , 42, 729-731	7
1879	Electrically conductive polyethylene terephthalate/graphene nanocomposites prepared by melt compounding. <b>2010</b> , 51, 1191-1196	609
1878	Size effect in the characterization of microporous activated nanostructured carbon. <b>2010</b> , 130, 21-25	16
1877	Graphene nanosheets as electrode material for electric double-layer capacitors. <b>2010</b> , 55, 4812-4819	297
1876	Tuneable molecular doping of corrugated graphene. <b>2010</b> , 604, 2190-2193	14
1875	Free-standing graphene by scanning transmission electron microscopy. <b>2010</b> , 110, 1460-4	14
1874	Covalent attaching protein to graphene oxide via diimide-activated amidation. <b>2010</b> , 81, 434-8	138
1873	Graphene oxide sheet-prussian blue nanocomposites: green synthesis and their extraordinary electrochemical properties. <b>2010</b> , 81, 508-12	60
1872	Classifying nanostructured carbons using graphitic indices derived from Raman spectra. <b>2010</b> , 48, 620-629	187
1871	Electron microscopy analyses of natural and highly oriented pyrolytic graphites and the mechanically exfoliated graphenes produced from them. <b>2010</b> , 48, 797-804	37
1870	Transformation of graphene into graphane in the absence of hydrogen. <b>2010</b> , 48, 981-986	25
1869	Production, properties and potential of graphene. <b>2010</b> , 48, 2127-2150	1240
1868	Substrate-free synthesis of large area, continuous multi-layer graphene film. <b>2010</b> , 48, 2394-2400	22
1867	Preparation of graphene nanowalls by a simple microwave-based method. <b>2010</b> , 48, 3993-4000	55

1866	Sheet-like carbon particles with graphene structures obtained from a Bunsen flame. <b>2010</b> , 48, 4203-4206	11
1865	Preparation of a mesoporous carbon membrane from resorcinol and formaldehyde. <b>2010</b> , 48, 4206-4208	15
1864	Fabrication of a hybrid graphene/layered double hydroxide material. <b>2010</b> , 48, 4391-4396	90
1863	Edge reconstructions induce magnetic and metallic behavior in zigzag graphene nanoribbons. <b>2010</b> , 48, 4409-4413	43
1862	Large reversible capacity of high quality graphene sheets as an anode material for lithium-ion batteries. <b>2010</b> , 55, 3909-3914	894
1861	Enhanced cycling performance of Fe <sub>3</sub> O <sub>4</sub> /graphene nanocomposite as an anode material for lithium-ion batteries. <b>2010</b> , 56, 834-840	367
1860	[Not Available]. <b>2010</b> , 66, 81-3	
1859	The carbon new age. <b>2010</b> , 13, 12-17	58
1858	Poly(N-vinylcarbazole) chemically modified graphene oxide. <b>2010</b> , 48, 2642-2649	83
1857	Forever young: polycyclic aromatic hydrocarbons as model cases for structural and optical studies. <b>2010</b> , 23, n/a-n/a	110
1856	Fluorographene: a two-dimensional counterpart of Teflon. <b>2010</b> , 6, 2877-84	979
1855	Surface investigation of carbon films: from diamond to graphite. <b>2010</b> , 42, 1082-1084	120
1854	Reduced graphene oxide-templated photochemical synthesis and in situ assembly of Au nanodots to orderly patterned Au nanodot chains. <b>2010</b> , 6, 513-6	189
1853	Conjugated-polyelectrolyte-functionalized reduced graphene oxide with excellent solubility and stability in polar solvents. <b>2010</b> , 6, 663-9	260
1852	Nanotechnology: Holes with an edge. <i>Nature</i> , <b>2010</b> , 467, 164-5	50.4 56
1851	Quantum Levitation of Graphene Sheet by Repulsive Casimir Forces. <b>2010</b> , 8, 57-61	6
1850	. <b>2010</b> ,	117
1849	Continuum Plate Theory and Atomistic Modeling to Find the Flexural Rigidity of a Graphene Sheet Interacting with a Substrate. <b>2010</b> , 2010, 1-8	17

1848	On the structure and topography of free-standing chemically modified graphene. <b>2010</b> , 12, 125010	39
1847	Large-scale graphitic thin films synthesized on Ni and transferred to insulators: Structural and electronic properties. <b>2010</b> , 107, 044310	77
1846	Transport properties of corrugated graphene nanoribbons. <b>2010</b> , 96, 173101	29
1845	Thermal fluctuations of free-standing graphene. <b>2010</b> , 82,	58
1844	Flexural phonons and thermal transport in graphene. <b>2010</b> , 82,	532
1843	Electron density distribution and screening in rippled graphene sheets. <b>2010</b> , 81,	71
1842	Gap opening in topological-defect lattices in graphene. <b>2010</b> , 81,	21
1841	Edge states in a honeycomb lattice: Effects of anisotropic hopping and mixed edges. <b>2010</b> , 81,	5
1840	Discontinuous Euler instability in nanoelectromechanical systems. <b>2010</b> , 81,	24
1839	Anomalous criticality at the $n=0$ quantum Hall transition in graphene: The role of disorder preserving chiral symmetry. <b>2010</b> , 82,	8
1838	Fabrication of metal patterns on freestanding graphenoid nanomembranes. <b>2010</b> , 28, C6D5-C6D10	16
1837	The resonant tunneling through a graphene multiquantum well system. <b>2010</b> , 107, 123718	16
1836	Irreversibility in response to forces acting on graphene sheets. <b>2010</b> , 104, 196804	19
1835	Roller-style electrostatic printing of prepatterned few-layer-graphenes. <b>2010</b> , 96, 013109	17
1834	Graphene morphology regulated by nanowires patterned in parallel on a substrate surface. <b>2010</b> , 107, 103519	18
1833	Effects of particle contamination and substrate interaction on the Raman response of unintentionally doped graphene. <b>2010</b> , 108, 084321	50
1832	Mechanical properties of rippled structure in suspended stacks of graphene. <b>2010</b> , 108, 014302	7
1831	Absolute Raman matrix elements of graphene and graphite. <b>2010</b> , 82,	14

1830	A BRIEF REVIEW ON GRAPHENE-NANOPARTICLE COMPOSITES. <b>2010</b> , 06, 159-166	19
1829	Motion of a free-standing graphene sheet induced by the collision with an argon nanocluster: Analyses of the detection and heat-up of the graphene. <b>2010</b> , 81,	14
1828	Elastic properties of graphene flakes: Boundary effects and lattice vibrations. <b>2010</b> , 82,	27
1827	Flexuron: A self-trapped state of electron in crystalline membranes. <b>2010</b> , 82,	24
1826	Self-consistent screening approximation for flexible membranes: Application to graphene. <b>2010</b> , 82,	71
1825	Melting and rippling phenomena in two-dimensional crystals with localized bonding. <b>2010</b> , 81,	
1824	Rotation-dependent epitaxial relations between graphene and the Si-terminated SiC substrate. <b>2010</b> , 82,	8
1823	High-fidelity conformation of graphene to SiO <sub>2</sub> topographic features. <b>2010</b> , 105, 215504	112
1822	Optical and Electrical Properties of Graphene Percolated Networks from Liquid Exfoliation of Graphite. <b>2010</b> , 28, 99-106	1
1821	Synthesis. <b>2010</b> , 99-168	
1820	Vibration of a Multilayered Graphene Sheet With Initial Stress. <b>2010</b> , 1,	10
1819	Transitions of gases physisorbed on graphene. <b>2010</b> , 22, 304001	18
1818	Examining the stability of folded graphene edges against electron beam induced sputtering with atomic resolution. <b>2010</b> , 21, 325702	24
1817	Disorder effect on the transport properties of graphene quantum well structures. <b>2010</b> , 22, 435301	
1816	Mechanical and thermal stability of adhesive membranes with nonzero bending rigidity. <b>2010</b> , 105, 026103	16
1815	Tunable nanoscale graphene magnetometers. <b>2010</b> , 10, 341-6	52
1814	Migration of gold atoms in graphene ribbons: Role of the edges. <b>2010</b> , 81,	39
1813	Mechanically robust tri-wing graphene nanoribbons with tunable electronic and magnetic properties. <b>2010</b> , 10, 494-8	65

1812	Corrugation of chemically converted graphene monolayers on SiO(2). <b>2010</b> , 4, 3095-102	39
1811	Resonant scattering by realistic impurities in graphene. <b>2010</b> , 105, 056802	260
1810	Structure-directing role of graphene in the synthesis of metal-organic framework nanowire. <b>2010</b> , 132, 14487-95	350
1809	One Step Synthesis of Graphene OxideMagnetic Nanoparticle Composite. <b>2010</b> , 114, 1498-1503	301
1808	Structural and electronic properties of epitaxial graphene on SiC(0 0 0 1): a review of growth, characterization, transfer doping and hydrogen intercalation. <b>2010</b> , 43, 374009	371
1807	Wafer scale homogeneous bilayer graphene films by chemical vapor deposition. <b>2010</b> , 10, 4702-7	376
1806	Periodically modulated geometric and electronic structure of graphene on Ru(0 0 0 1). <b>2010</b> , 25, 034001	20
1805	Honeycomb carbon: a review of graphene. <b>2010</b> , 110, 132-45	5411
1804	Triplet States and electronic relaxation in photoexcited graphene quantum dots. <b>2010</b> , 10, 2679-82	244
1803	Ternary self-assembly of ordered metal oxide-graphene nanocomposites for electrochemical energy storage. <b>2010</b> , 4, 1587-95	731
1802	Effects of mismatch strain and substrate surface corrugation on morphology of supported monolayer graphene. <b>2010</b> , 107, 123531	114
1801	Exfoliation of Graphite via Edge-Functionalization with Carboxylic Acid-Terminated Hyperbranched Poly(ether-ketone)s. <b>2010</b> , 123-125, 671-674	3
1800	Substrate-free microwave synthesis of graphene: experimental conditions and hydrocarbon precursors. <b>2010</b> , 12, 125013	61
1799	Nitrogen/boron doping position dependence of the electronic properties of a triangular graphene. <b>2010</b> , 4, 7619-29	78
1798	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
1797	Substrate-regulated morphology of graphene. <b>2010</b> , 43, 075303	67
1796	Covalent modification and exfoliation of graphene oxide using ferrocene. <b>2010</b> , 2, 1762-6	77
1795	A roadmap to high quality chemically prepared graphene. <b>2010</b> , 43, 374015	48

1794	Stability of solvated nanosheet in shear flow. <b>2010</b> , 97, 214102	3
1793	Atmospheric oxygen binding and hole doping in deformed graphene on a SiO <sub>2</sub> substrate. <b>2010</b> , 10, 4944-51	615
1792	Perspectives on the 2010 Nobel Prize in physics for graphene. <b>2010</b> , 4, 6297-302	73
1791	Spectroscopic ellipsometry of graphene and an exciton-shifted van Hove peak in absorption. <b>2010</b> , 81,	410
1790	Approximate modeling of spherical membranes. <b>2010</b> , 82,	68
1789	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
1788	Scalable coating and properties of transparent, flexible, silver nanowire electrodes. <b>2010</b> , 4, 2955-63	1734
1787	Anomalously large reactivity of single graphene layers and edges toward electron transfer chemistries. <b>2010</b> , 10, 398-405	433
1786	Dirac-Kronig-Penney model for strain-engineered graphene. <b>2010</b> , 82,	33
1785	Effect of external conditions on the structure of scrolled graphene edges. <b>2010</b> , 81,	39
1784	Quantum conductance modulation in graphene by strain engineering. <b>2010</b> , 96, 143118	19
1783	ssDNA binding reveals the atomic structure of graphene. <b>2010</b> , 26, 18078-82	75
1782	Ultrathin conductive carbon nanomembranes as support films for structural analysis of biological specimens. <b>2010</b> , 12, 4345-50	14
1781	Spectral gap induced by structural corrugation in armchair graphene nanoribbons. <b>2010</b> , 81,	21
1780	Efficient approach for simulating distorted materials. <b>2010</b> , 105, 106401	24
1779	The Idea of Crystals. <b>2010</b> , 3-16	
1778	Fabrication of Large-Area Graphene Using Liquid Gallium and Its Electrical Properties. <b>2010</b> , 49, 06GC01	10
1777	Bistability and oscillatory motion of natural nanomembranes appearing within monolayer graphene on silicon dioxide. <b>2010</b> , 10, 461-5	94

1776	Oxygen vacancy induced structural variations of exfoliated monolayer MnO <sub>2</sub> sheets. <b>2010</b> , 81,	23
1775	Molecular Dynamics Simulations of Folding of Supported Graphene. <b>2010</b> , 114, 22472-22477	46
1774	Biaxial strain in graphene adhered to shallow depressions. <b>2010</b> , 10, 6-10	171
1773	Morphology and Transport Properties of Two-Dimensional Sheet Polymers. <b>2010</b> , 43, 3438-3445	28
1772	Wedging transfer of nanostructures. <b>2010</b> , 10, 1912-6	153
1771	Temperature-dependent resistivity of suspended graphene. <b>2010</b> , 82,	110
1770	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
1769	Nondispersive Raman D band activated by well-ordered interlayer interactions in rotationally stacked bilayer graphene. <b>2010</b> , 82,	70
1768	Functionalization of graphene via 1,3-dipolar cycloaddition. <b>2010</b> , 4, 3527-33	378
1767	Crossover in the adsorption properties of alkali metals on graphene. <b>2010</b> , 82,	78
1766	Enzyme-Doped Graphene Nanosheets for Enhanced Glucose Biosensing. <b>2010</b> , 114, 12920-12924	246
1765	Effect of magnetic field on the electronic transport in trilayer graphene. <b>2010</b> , 4, 7087-92	28
1764	Atomic structure of reduced graphene oxide. <b>2010</b> , 10, 1144-8	943
1763	Detailed kinetic Monte Carlo simulations of graphene-edge growth. <b>2010</b> , 114, 689-703	106
1762	Graphene oxide: a substrate for optimizing preparations of frozen-hydrated samples. <b>2010</b> , 170, 152-6	130
1761	Dislocations and torsion in graphene and related systems. <b>2010</b> , 828, 625-637	58
1760	DNA translocation through graphene nanopores. <b>2010</b> , 10, 2915-21	740
1759	High-yield exfoliation of three-dimensional graphite into two-dimensional graphene-like sheets. <b>2010</b> , 46, 6320-2	97

1758	Density functional study of the Au-intercalated graphene/Ni(111) surface. <b>2010</b> , 82,	55
1757	Separating and visualising protein assemblies by means of preparative mass spectrometry and microscopy. <b>2010</b> , 172, 161-8	54
1756	Colloidal Graphene Quantum Dots. <b>2010</b> , 1, 2572-2576	291
1755	Nonlinear optical and optical limiting properties of graphene families. <b>2010</b> , 96, 033107	222
1754	Nanoscale tunable reduction of graphene oxide for graphene electronics. <b>2010</b> , 328, 1373-6	584
1753	A new approach to fabricate graphene nanosheets in organic medium: combination of reduction and dispersion. <b>2010</b> , 20, 1722	205
1752	Two-dimensional carbon nanostructures: Fundamental properties, synthesis, characterization, and potential applications. <b>2010</b> , 108, 071301	216
1751	Graphene nanoribbons obtained by electrically unwrapping carbon nanotubes. <b>2010</b> , 4, 1362-6	128
1750	Free folding of suspended graphene sheets by random mechanical stimulation. <b>2010</b> , 104, 166805	124
1749	Atomic-scale observation of rotational misorientation in suspended few-layer graphene sheets. <b>2010</b> , 2, 700-8	38
1748	Raman Spectroscopic Characterization of Graphene. <b>2010</b> , 45, 369-407	170
1747	Anisotropy of the Stone-Wales defect and warping of graphene nanoribbons: A first-principles analysis. <b>2010</b> , 81,	48
1746	The formation of wrinkles in single-layer graphene sheets under nanoindentation. <b>2010</b> , 22, 145302	27
1745	Graphene on Ru(0001): a corrugated and chiral structure. <b>2010</b> , 12, 043028	79
1744	A dehydration and stabilizer-free approach to production of stable water dispersions of graphene nanosheets. <b>2010</b> , 20, 4328	114
1743	Photodegradation of Graphene Oxide Sheets by TiO <sub>2</sub> Nanoparticles after a Photocatalytic Reduction. <b>2010</b> , 114, 12955-12959	367
1742	Environment-Friendly Method To Produce Graphene That Employs Vitamin C and Amino Acid. <b>2010</b> , 22, 2213-2218	621
1741	Perspectives of Micro and Nanofabrication of Carbon for Electrochemical and Microfluidic Applications. <b>2010</b> , 181-263	7



1740	Intrinsic buckling strength of graphene: First-principles density functional theory calculations. <b>2010</b> , 82,	26
1739	Growth Kinetics and Defects of CVD Graphene on Cu. <b>2010</b> , 28, 109-114	24
1738	A direct transfer of layer-area graphene. <b>2010</b> , 96, 113102	300
1737	Graphene as a transparent conductive support for studying biological molecules by transmission electron microscopy. <b>2010</b> , 97, 153102	123
1736	Transfer-free batch fabrication of large-area suspended graphene membranes. <b>2010</b> , 4, 4762-8	90
1735	Graphene and its one-dimensional patterns: from basic properties towards applications. <b>2010</b> , 1, 033001	3
1734	Geometry, mechanics, and electronics of singular structures and wrinkles in graphene. <b>2010</b> , 105, 156603	152
1733	Carbon in palladium catalysts: A metastable carbide. <b>2010</b> , 132, 024711	58
1732	The influence of the number of graphene layers on the atomic resolution images obtained from aberration-corrected high resolution transmission electron microscopy. <b>2010</b> , 21, 255707	18
1731	Comparison of Graphene Growth on Single-Crystalline and Polycrystalline Ni by Chemical Vapor Deposition. <b>2010</b> , 1, 3101-3107	285
1730	Functionalizing Single- and Multi-layer Graphene with Br and Br <sub>2</sub> . <b>2010</b> , 114, 14939-14945	38
1729	Separation-dependent electronic transparency of monolayer graphene membranes on III-V semiconductor substrates. <b>2010</b> , 10, 3446-52	29
1728	Bottom-up Approaches to Nanographenes through Organic Synthesis. <b>2010</b> , 235-261	1
1727	Dopamine-Induced Reduction and Functionalization of Graphene Oxide Nanosheets. <b>2010</b> , 43, 8336-8339	652
1726	Geometry controls conformation of graphene sheets: membranes, ribbons, and scrolls. <b>2010</b> , 4, 3869-76	203
1725	Interplay between bending and stretching in carbon nanoribbons. <b>2010</b> , 81,	26
1724	Effect of surface roughness on the static and dynamic properties of water adsorbed on graphene. <b>2010</b> , 114, 4583-9	36
1723	Corrugation in exfoliated graphene: an electron microscopy and diffraction study. <b>2010</b> , 4, 4879-89	70

1722	Carbon Nanostructures [Tubes, Graphene, Fullerenes, Wave-Particle Duality. <b>2010</b> , 209-266	1
1721	Magnetic graphene: A new class of cages formed from graphene sheets and carbon nanotubes. <b>2010</b> , 82,	9
1720	Large-scale, uniform, single-crystalline Cd(OH) <sub>2</sub> hexagonal platelets for Cd-based functional applications. <b>2010</b> , 12, 1726	15
1719	Aryne-mediated syntheses of structurally related acene derivatives. <b>2010</b> , 8, 3386-8	18
1718	Synthesis of hybrid graphene carbon-coated nanocatalysts. <b>2010</b> , 20, 8230	16
1717	Rippled graphene in an in-plane magnetic field: effects of a random vector potential. <b>2010</b> , 105, 146804	42
1716	Electrical transport and low-temperature scanning tunneling microscopy of microsoldered graphene. <b>2010</b> , 96, 082114	40
1715	Excess energy and deformation along free edges of graphene nanoribbons. <b>2010</b> , 81,	71
1714	Nanocables composed of anatase nanofibers wrapped in UV-light reduced graphene oxide and their enhancement of photoinduced electron transfer in photoanodes. <b>2011</b> , 21, 18174	49
1713	Functionalization of surfactant wrapped graphene nanosheets with alkylazides for enhanced dispersibility. <b>2011</b> , 3, 303-8	116
1712	Continuity of graphene on polycrystalline copper. <b>2011</b> , 11, 251-6	162
1711	Salt-controlled assembly of stacked-graphene for capturing fluorescence and its application in chemical genotoxicity screening. <b>2011</b> , 21, 15266	5
1710	Size-dependent interaction of Au nanoparticles and graphene sheet. <b>2011</b> , 47, 3610-2	36
1709	Soft elastic surfaces as a platform for particle self-assembly. <b>2011</b> , 7, 8324	15
1708	Mesoscopic organic nanosheets peeled from stacked 2D covalent frameworks. <b>2011</b> , 47, 7365-7	15
1707	Evaporation-induced flattening and self-assembly of chemically converted graphene on a solid surface. <b>2011</b> , 7, 8745	22
1706	Regioselectivity control of graphene functionalization by ripples. <b>2011</b> , 13, 19449-53	39
1705	Novel synthesis of graphene foils in mesostructured silica between hexagonal and lamellar phases. <b>2011</b> , 47, 2297-9	7

1704	Structural distortions in few-layer graphene creases. <b>2011</b> , 5, 9984-91	25
1703	Formation of ripples in graphene as a result of interfacial instabilities. <b>2011</b> , 5, 9619-27	88
1702	From graphene sheets to graphene nanoribbons: Dimensional crossover signals in structural thermal fluctuations. <b>2011</b> , 83,	11
1701	Thermal stability of corrugated epitaxial graphene grown on Re(0001). <b>2011</b> , 106, 216101	94
1700	Chirality- and curvature-dependent bending stiffness of single layer graphene. <b>2011</b> , 99, 201901	35
1699	Large-Scale Deposition of Graphene With Dielectrophoresis. <b>2011</b> ,	
1698	Pressure-mediated doping in graphene. <b>2011</b> , 11, 3564-8	70
1697	The electronic properties of superatom states of hollow molecules. <b>2011</b> , 44, 360-8	72
1696	Iron sulfide-embedded carbon microsphere anode material with high-rate performance for lithium-ion batteries. <b>2011</b> , 47, 8653-5	145
1695	Preferential and Reversible Fluorination of Monolayer Graphene. <b>2011</b> , 115, 16844-16848	71
1694	Particle self-assembly on soft elastic shells. <b>2011</b> , 7, 1874-1878	18
1693	Lithium Intercalation Induced Decoupling of Epitaxial Graphene on SiC(0001): Electronic Property and Dynamic Process. <b>2011</b> , 115, 23992-23997	27
1692	Graphene structures at an extreme degree of buckling. <b>2011</b> , 5, 1395-400	39
1691	Vacuum-assisted synthesis of graphene from thermal exfoliation and reduction of graphite oxide. <b>2011</b> , 21, 5392	177
1690	Sticking of hydrogen on supported and suspended graphene at low temperature. <b>2011</b> , 107, 236102	21
1689	Domain (grain) boundaries and evidence of "twinlike" structures in chemically vapor deposited grown graphene. <b>2011</b> , 5, 2433-9	156
1688	Formation of bilayer bernal graphene: layer-by-layer epitaxy via chemical vapor deposition. <b>2011</b> , 11, 1106-10	320
1687	The 2010 Nobel Prize in physics—ground-breaking experiments on graphene. <b>2011</b> , 44, 473001	41

1686	Hexagonal single crystal domains of few-layer graphene on copper foils. <b>2011</b> , 11, 1182-9	256
1685	Preparation of Novel Carbon-based Nanomaterial of Graphene and Its Applications Electrochemistry. <b>2011</b> , 39, 963-971	18
1684	Synthesis of Graphene-CdSe Composite by a Simple Hydrothermal Method and Its Photocatalytic Degradation of Organic Dyes. <b>2011</b> , 32, 1577-1583	51
1683	Physics of Carbon Nanostructures. <b>2011</b> , 155-194	3
1682	Aqueous only route toward graphene from graphite oxide. <b>2011</b> , 5, 1253-8	232
1681	Nitrogen-doped graphene nanosheets with excellent lithium storage properties. <b>2011</b> , 21, 5430	616
1680	Electrochemical unzipping of multi-walled carbon nanotubes for facile synthesis of high-quality graphene nanoribbons. <b>2011</b> , 133, 4168-71	179
1679	Graphene nanoribbons from unzipped carbon nanotubes: atomic structures, Raman spectroscopy, and electrical properties. <b>2011</b> , 133, 10394-7	149
1678	Graphene Transistors and Circuits. <b>2011</b> , 349-376	2
1677	Nanomaterials for Alternative Energy. <b>2011</b> , 199-246	
1676	Buckling of a single-layered graphene sheet on an initially strained InGaAs thin plate. <b>2011</b> , 22, 305705	11
1675	Graphene nanosheets based on controlled exfoliation process for enhanced lithium storage in lithium-ion battery. <b>2011</b> , 20, 756-761	53
1674	Thermal expansion of supported and freestanding graphene: lattice constant versus interatomic distance. <b>2011</b> , 106, 135501	124
1673	Graphene solutions. <b>2011</b> , 47, 5470-2	73
1672	How Do Metal/Graphene Self-Assemble into Core/Shell Composite Nanostructures?. <b>2011</b> , 115, 6229-6234	27
1671	Graphitization behaviour of chemically derived graphene sheets. <b>2011</b> , 3, 3652-6	37
1670	Electrochemistry of individual monolayer graphene sheets. <b>2011</b> , 5, 2264-70	208
1669	Graphene adhesion on mica: Role of surface morphology. <b>2011</b> , 83,	49

1668	Carbon-Based Materials: Growth, Properties, MEMS/NEMS Technologies, and MEM/NEM Switches. <b>2011</b> , 36, 66-101	48
1667	Li-air rechargeable battery based on metal-free graphene nanosheet catalysts. <b>2011</b> , 5, 3020-6	353
1666	Photochemical chlorination of graphene. <b>2011</b> , 5, 5957-61	284
1665	Graphene: fabrication methods and thermophysical properties. <b>2011</b> , 181, 233	31
1664	Large-scale growth and characterizations of nitrogen-doped monolayer graphene sheets. <b>2011</b> , 5, 4112-7	538
1663	Single terrace growth of graphene on a metal surface. <b>2011</b> , 11, 1895-900	63
1662	Graphene: preparation and structural perfection. <b>2011</b> , 21, 3280-3294	114
1661	Fabrication of free-standing graphene/polyaniline nanofibers composite paper via electrostatic adsorption for electrochemical supercapacitors. <b>2011</b> , 35, 369-374	123
1660	Clar sextet analysis of triangular, rectangular, and honeycomb graphene antidot lattices. <b>2011</b> , 5, 523-9	88
1659	Preparation of non-covalently functionalized graphene using 9-anthracene carboxylic acid. <b>2011</b> , 22, 405603	43
1658	Self-Assembled Hierarchical Structure of Fullerene Building Blocks; Single-Walled Carbon Nanotubes and C60. <b>2011</b> , 115, 10483-10488	10
1657	Wrinkle engineering: a new approach to massive graphene nanoribbon arrays. <b>2011</b> , 133, 17578-81	126
1656	Synthesis of hexagonal close-packed gold nanostructures. <b>2011</b> , 2, 292	467
1655	Facile synthesis of reduced graphene oxide in supercritical alcohols and its lithium storage capacity. <b>2011</b> , 13, 2714	69
1654	Graphene-Based Supercapacitors: A Computer Simulation Study. <b>2011</b> , 115, 23574-23583	85
1653	Soft-Matter Nanotubes. <b>2011</b> , 75-125	4
1652	Optics of Flat Carbon Spectroscopic Ellipsometry of Graphene Flakes. <b>2011</b> , 3-9	2
1651	Flexible energy storage devices based on graphene paper. <b>2011</b> , 4, 1277	497

1650	Preparation of Graphene/CdS-Nanobelt Nanocomposites. <b>2011</b> , 295-297, 844-848	
1649	Poly(3,4-Ethylenedioxyppyrole) Enwrapped by Reduced Graphene Oxide: How Conduction Behavior at Nanolevel Leads to Increased Electrochemical Activity. <b>2011</b> , 115, 18354-18365	41
1648	The ripple's enhancement in graphene sheets by spark plasma sintering. <b>2011</b> , 1, 032170	2
1647	A novel strategy for making soluble reduced graphene oxide sheets cheaply by adopting an endogenous reducing agent. <b>2011</b> , 21, 3365-3370	193
1646	Graphene veils and sandwiches. <b>2011</b> , 11, 3290-4	49
1645	Highly efficient visible-light-driven photocatalytic hydrogen production of CdS-cluster-decorated graphene nanosheets. <b>2011</b> , 133, 10878-84	2039
1644	Selective deposition of CdSe nanoparticles on reduced graphene oxide to understand photoinduced charge transfer in hybrid nanostructures. <b>2011</b> , 3, 2703-9	24
1643	One step hydrothermal synthesis of TiO <sub>2</sub> -reduced graphene oxide sheets. <b>2011</b> , 21, 3415	419
1642	Effect of wall roughness on fluid transport resistance in nanopores. <b>2011</b> , 135, 144703	45
1641	Graphene: materials in the Flatland. <b>2011</b> , 181, 1299	32
1640	Highly Ordered Monolayer, Multilayer, and Hybrid Films of Graphene Oxide Obtained by the Bubble Deposition Method. <b>2011</b> , 115, 14678-14681	28
1639	Catalyst-free synthesis of nitrogen-doped graphene via thermal annealing graphite oxide with melamine and its excellent electrocatalysis. <b>2011</b> , 5, 4350-8	2020
1638	Large-scale graphene transistors with enhanced performance and reliability based on interface engineering by phenylsilane self-assembled monolayers. <b>2011</b> , 11, 523-8	88
1637	Shell-Models for Multi-Layer Carbon Nano-Particles. <b>2011</b> , 585-602	2
1636	Controllable corrugation of chemically converted graphene sheets in water and potential application for nanofiltration. <b>2011</b> , 47, 5810-2	277
1635	Curvature-induced spin-orbit coupling and spin relaxation in a chemically clean single-layer graphene. <b>2011</b> , 84,	37
1634	Melting of graphene: from two to one dimension. <b>2011</b> , 23, 202202	78
1633	Manipulating fully spin-polarized edge currents in graphene ribbon. <b>2011</b> , 84,	

1632	Spin dephasing and pumping in graphene due to random spin-orbit interaction. <b>2011</b> , 83,	58
1631	Upright standing graphene formation on substrates. <b>2011</b> , 133, 16072-9	39
1630	Electric transport through circular graphene quantum dots: Presence of disorder. <b>2011</b> , 84,	21
1629	Shell-like Structures. <b>2011</b> ,	20
1628	Laser desorption/ionization on the layer of graphene nanoparticles coupled with mass spectrometry for characterization of polymers. <b>2011</b> , 47, 12807-9	30
1627	Unified description of the dc conductivity of monolayer and bilayer graphene at finite densities based on resonant scatterers. <b>2011</b> , 83,	137
1626	Nanoelectronic Circuit Design. <b>2011</b> ,	19
1625	Strain induced shift of Dirac points and the pseudo-magnetic field in graphene. <b>2011</b> , 23, 505502	7
1624	Dirac fermions in an inhomogeneous magnetic field. <b>2011</b> , 44, 015302	6
1623	Denser than diamond: Ab initio search for superdense carbon allotropes. <b>2011</b> , 83,	103
1622	Quantum Dots and Nanoroads of Graphene Embedded in Hexagonal Boron Nitride. <b>2011</b> , 115, 9889-9893	127
1621	Observation of oscillatory resistance behavior in coupled Bernal and rhombohedral stacking graphene. <b>2011</b> , 5, 5490-8	15
1620	Polyelectrolyte-induced reduction of exfoliated graphite oxide: a facile route to synthesis of soluble graphene nanosheets. <b>2011</b> , 5, 1785-91	274
1619	Transparent, luminescent, antibacterial and patternable film forming composites of graphene oxide/reduced graphene oxide. <b>2011</b> , 3, 2643-54	100
1618	Transparent conductive films consisting of ultralarge graphene sheets produced by Langmuir-Blodgett assembly. <b>2011</b> , 5, 6039-51	351
1617	Interfacial interactions between local defects in amorphous SiO <sub>2</sub> and supported graphene. <b>2011</b> , 84,	34
1616	Bending ultrathin graphene at the margins of continuum mechanics. <b>2011</b> , 106, 255503	178
1615	Preparation of Quasi-Free-Standing Graphene with a Super Large Interlayer Distance by Methane Intercalation. <b>2011</b> , 115, 20538-20545	8

1614	Growth of bilayer graphene on insulating substrates. <b>2011</b> , 5, 8187-92	243
1613	Graphene Composites. <b>2011</b> ,	4
1612	Controlled radiation damage and edge structures in boron nitride membranes. <b>2011</b> , 5, 3977-86	28
1611	Graphene oxide coated core-shell structured polystyrene microspheres and their electrorheological characteristics under applied electric field. <b>2011</b> , 21, 6916	136
1610	A green synthetic approach to graphene nanosheets for hydrogen adsorption. <b>2011</b> , 257, 10183-10187	93
1609	Atomistic continuum modeling of graphene membranes. <b>2011</b> , 50, 1744-1753	17
1608	Potassium influence in the adsorption of hydrogen on graphene: A density functional theory study. <b>2011</b> , 50, 2427-2432	28
1607	Nonlocal elasticity theory for the buckling of double-layer graphene nanoribbons based on a continuum model. <b>2011</b> , 50, 3085-3090	32
1606	H <sup>+</sup> ions on graphene electrode as hydrogen storage reservoirs. <b>2011</b> , 50, 3257-3264	2
1605	Trapping of metal atoms in the defects on graphene. <b>2011</b> , 135, 224704	104
1604	A role for graphene in silicon-based semiconductor devices. <i>Nature</i> , <b>2011</b> , 479, 338-44	50.4 556
1603	Ultrastrong adhesion of graphene membranes. <b>2011</b> , 6, 543-6	749
1602	2D materials: to graphene and beyond. <b>2011</b> , 3, 20-30	1095
1601	Nobel Lecture: Graphene: Materials in the Flatland*. <b>2011</b> , 83, 837-849	584
1600	Electronic properties of graphene in a strong magnetic field. <b>2011</b> , 83, 1193-1243	612
1599	Electrical Characteristics of Cobalt Phthalocyanine Complexes Adsorbed on Graphene. <b>2011</b> , 115, 16052-16062	37
1598	Graphene: Substrate preparation and introduction. <b>2011</b> , 174, 234-8	66
1597	Graphene-based electrochemical energy conversion and storage: fuel cells, supercapacitors and lithium ion batteries. <b>2011</b> , 13, 15384-402	432



1596	Wedging graphite into graphene and graphene-like platelets by dendritic macromolecules. <b>2011</b> , 21, 7820	24
1595	Making angle-resolved photoemission measurements on corrugated monolayer crystals: Suspended exfoliated single-crystal graphene. <b>2011</b> , 84,	43
1594	Rapid microwave-assisted synthesis of graphene nanosheets/zinc sulfide nanocomposites: Optical and photocatalytic properties. <b>2011</b> , 161, 404-410	154
1593	Atomistic simulation of a graphene-nanoribbon-metal interconnect. <b>2011</b> , 23, 355006	12
1592	Spin-orbit interaction in curved graphene ribbons. <b>2011</b> , 83,	26
1591	Fast synthesis of SnO <sub>2</sub> /graphene composites by reducing graphene oxide with stannous ions. <b>2011</b> , 21, 1673-1676	190
1590	Graphene and carbon nanotube composite electrodes for supercapacitors with ultra-high energy density. <b>2011</b> , 13, 17615-24	525
1589	Direct synthesis of noble metal/graphene nanocomposites from graphite in water: photo-synthesis. <b>2011</b> , 47, 12236-8	34
1588	Scanning Tunneling Microscopy and Spectroscopy of Graphene. <b>2011</b> , 57-91	
1587	Enhanced Photocatalytic Activity and Electron Transfer Mechanisms of Graphene/TiO <sub>2</sub> with Exposed {001} Facets. <b>2011</b> , 115, 23718-23725	212
1586	Dirac equation for cold atoms in artificial curved spacetimes. <b>2011</b> , 13, 035002	86
1585	Fullerenes, carbon nanotubes, and graphene for molecular electronics. <b>2012</b> , 312, 127-74	19
1584	Macroscopic, free-standing Ag-reduced, graphene oxide Janus films prepared by evaporation-induced self-assembly. <b>2011</b> , 17, 8789-93	30
1583	Second-order overtone and combination Raman modes of graphene layers in the range of 1690-2150 cm <sup>-1</sup> . <b>2011</b> , 5, 1600-5	120
1582	Buckled circular monolayer graphene: a graphene nano-bowl. <b>2011</b> , 23, 045002	23
1581	Graphene epitaxy by chemical vapor deposition on SiC. <b>2011</b> , 11, 1786-91	257
1580	Aharonov-Bohm interferences from local deformations in graphene. <b>2011</b> , 7, 810-815	93
1579	Chemical Vapor Deposition of Boron Nitride Nanosheets on Metallic Substrates via Decaborane/Ammonia Reactions. <b>2011</b> , 23, 4414-4416	79

1578	GRAPHENE: SYNTHESIS, FUNCTIONALIZATION AND PROPERTIES. <b>2011</b> , 25, 4107-4143	18
1577	sp-Electron magnetic clusters with a large spin in graphene. <b>2011</b> , 5, 2440-6	63
1576	Partially oxidized graphene as a precursor to graphene. <b>2011</b> , 21, 11217	66
1575	Facile fabrication of functionalized graphene sheets (FGS)/ZnO nanocomposites with photocatalytic property. <b>2011</b> , 3, 2779-85	172
1574	Structures and electronic properties of silicene clusters: a promising material for FET and hydrogen storage. <b>2011</b> , 13, 7304-11	114
1573	New design strategy for the two-photon active material based on push-pull substituted bisanthene molecule. <b>2011</b> , 115, 2607-14	17
1572	Graphene phytotoxicity in the seedling stage of cabbage, tomato, red spinach, and lettuce. <b>2011</b> ,	5
1571	Electrical Conductivity of Melt Compounded Functionalized Graphene Sheets Filled Polyethyleneterephthalate Composites. <b>2011</b> ,	1
1570	Quasi-Particle Spectra on Substrate and Embedded Graphene Monolayers. <b>2011</b> ,	2
1569	Theory of Defect Dynamics in Graphene. <b>2011</b> ,	1
1568	Scanning Transmission Electron Microscopy and Spectroscopy of Suspended Graphene. <b>2011</b> ,	1
1567	Graphene Nano-Flakes and Nano-Dots: Theory, Experiment and Applications. <b>2011</b> ,	4
1566	High Resolution Microscopy of SiO <sub>2</sub> and the Structure of SiO <sub>2</sub> -Supported Graphene. <b>2011</b> ,	
1565	Near-field radiative heat transfer and van der Waals friction between closely spaced graphene and amorphous SiO <sub>2</sub> . <b>2011</b> , 291, 012018	2
1564	Magnetoresistance of Rippled Graphene in a Parallel Magnetic Field. <b>2011</b> , 334, 012039	2
1563	Edge states in graphene quantum Hall system with bond vs potential disorder. <b>2011</b> , 334, 012043	
1562	Graphene: Synthesis, Functionalization and Properties. <b>2011</b> , 1-32	1
1561	Crystallization Properties of Polypropylene/Graphene Oxide Nanocomposites. <b>2011</b> , 335-336, 347-350	1

1560	Experimental analysis of charge redistribution due to chemical bonding by high-resolution transmission electron microscopy. <b>2011</b> , 10, 209-15	237
1559	Electron microscopy: The challenges of graphene. <b>2011</b> , 10, 165-6	21
1558	Scanning tunnelling microscopy and spectroscopy of ultra-flat graphene on hexagonal boron nitride. <b>2011</b> , 10, 282-5	985
1557	Synthetic vaccines: Immunity without harm. <b>2011</b> , 10, 166-8	1
1556	Stability range for a flat graphene sheet subjected to in-plane deformation. <b>2011</b> , 93, 571-576	30
1555	Synthesis of Au nanoparticles decorated graphene oxide nanosheets: noncovalent functionalization by TWEEN 20 in situ reduction of aqueous chloraurate ions for hydrazine detection and catalytic reduction of 4-nitrophenol. <b>2011</b> , 197, 320-6	157
1554	Nitrogen-doped ultrathin carbon nanofibers derived from electrospinning: Large-scale production, unique structure, and application as electrocatalysts for oxygen reduction. <b>2011</b> , 196, 9862-9867	111
1553	Electrochemical performances of graphene nanosheets prepared through microwave radiation. <b>2011</b> , 196, 10249-10253	23
1552	Theoretical study on singlet oxygen adsorption onto surface of graphene-like aromatic hydrocarbon molecules. <b>2011</b> , 30, 3249-3255	8
1551	Observation and formation mechanism of individual graphene foils inside multi-walled carbon nanotubes. <b>2011</b> , 46, 658-661	
1550	Hydrothermal synthesis of magnetic reduced graphene oxide sheets. <b>2011</b> , 46, 2077-2083	39
1549	Interface-hydrothermal synthesis of Sn3S4/graphene sheet composites and their application in electrochemical capacitors. <b>2011</b> , 65, 374-377	17
1548	Aniline- and N,N-dimethylformamide-assisted processing route for graphite nanoplates: intercalation and exfoliation pathway. <b>2011</b> , 65, 1371-1374	4
1547	Easy synthesis and characterization of high quality graphene sheets produced from mesocarbon microbeads. <b>2011</b> , 65, 2739-2741	8
1546	Buckling analysis of micro-/nano-scale plates based on two-variable refined plate theory incorporating nonlocal scale effects. <b>2011</b> , 93, 3093-3103	100
1545	Electrochemical and electrocatalytic properties of cobalt nanoparticles deposited on graphene modified glassy carbon electrode: Application to some amino acids detection. <b>2011</b> , 58, 757-763	60
1544	Synthesis of functional SiO <sub>2</sub> -coated graphene oxide nanosheets decorated with Ag nanoparticles for H <sub>2</sub> O <sub>2</sub> and glucose detection. <b>2011</b> , 26, 4791-7	205
1543	A multi-amplification aptasensor for highly sensitive detection of thrombin based on high-quality hollow CoPt nanoparticles decorated graphene. <b>2011</b> , 30, 61-6	46

1542	Ultrasonication-assisted ultrafast reduction of graphene oxide by zinc powder at room temperature. <b>2011</b> , 49, 5389-5397	296
1541	Adsorption characteristics of acrylonitrile, p-toluenesulfonic acid, 1-naphthalenesulfonic acid and methyl blue on graphene in aqueous solutions. <b>2011</b> , 173, 144-149	285
1540	A biosensor based on graphene nanoribbon with nanopores: a first-principles devices-design. <b>2011</b> , 20, 058504	32
1539	Graphene edges: a review of their fabrication and characterization. <b>2011</b> , 3, 86-95	353
1538	The Electronic Properties of Adsorbates on Graphene. <b>2011</b> , 93-134	2
1537	All-optical high-resolution nanopatterning and 3D suspending of graphene. <b>2011</b> , 5, 5141-50	42
1536	A new reducing agent to prepare single-layer, high-quality reduced graphene oxide for device applications. <b>2011</b> , 3, 2849-53	92
1535	Acoustic phonons and spin relaxation in graphene nanoribbons. <b>2011</b> , 84,	27
1534	Ripples and layers in ultrathin MoS <sub>2</sub> membranes. <b>2011</b> , 11, 5148-53	286
1533	Orientational correlations in two-dimensional liquid crystals studied by molecular dynamics simulation. <b>2011</b> , 134, 054513	8
1532	Electronic properties of graphene nanostructures. <b>2011</b> , 23, 243201	78
1531	Large-scale production of graphene by microwave synthesis and rapid cooling. <b>2011</b> , 47, 1166-8	56
1530	Electronic transport in monolayer graphene with extreme physical deformation: ab initio density functional calculation. <b>2011</b> , 22, 365202	8
1529	Fast synthesis of graphene sheets with good thermal stability by microwave irradiation. <b>2011</b> , 6, 1151-4	18
1528	Determination of explosives using electrochemically reduced graphene. <b>2011</b> , 6, 1210-6	72
1527	Low-energy termination of graphene edges via the formation of narrow nanotubes. <b>2011</b> , 107, 065502	41
1526	Multiply folded graphene. <b>2011</b> , 83,	247
1525	Ripple edge engineering of graphene nanoribbons. <b>2011</b> , 84,	37

1524	Monte Carlo simulation of temperature-dependent elastic properties of graphene. <b>2011</b> , 84,	18
1523	Microstructural features of carbon ordering during carbonization of pine wood shavings. <b>2011</b> , 37, 233-236	1
1522	Graphene as a quantum surface with curvature-strain preserving dynamics. <b>2011</b> , 18, 64-72	3
1521	Cu <sub>2</sub> ZnSnS <sub>4</sub> nanocrystals and graphene quantum dots for photovoltaics. <b>2011</b> , 3, 3040-8	85
1520	Electronic transport in two-dimensional graphene. <b>2011</b> , 83, 407-470	2416
1519	GRAPHENE: SYNTHESIS, FUNCTIONALIZATION AND PROPERTIES. <b>2011</b> , 25, 427-451	36
1518	Toward practical gas sensing with highly reduced graphene oxide: a new signal processing method to circumvent run-to-run and device-to-device variations. <b>2011</b> , 5, 1154-64	312
1517	Easy-to-operate and low-temperature synthesis of gram-scale nitrogen-doped graphene and its application as cathode catalyst in microbial fuel cells. <b>2011</b> , 5, 9611-8	189
1516	New directions in science and technology: two-dimensional crystals. <b>2011</b> , 74, 082501	185
1515	Hydrogen transport on graphene: Competition of mobility and desorption. <b>2011</b> , 84,	34
1514	Calculation of the number of atoms displaced during the irradiation of monolayer graphene. <b>2011</b> , 289, 167-172	3
1513	Biodistribution of co-exposure to multi-walled carbon nanotubes and graphene oxide nanoplatelets radiotracers. <b>2011</b> , 13, 2939-2947	42
1512	Graphene-based pressure nano-sensors. <b>2011</b> , 17, 2825-30	48
1511	The conductance of the NC <sub>3</sub> nanodevices: different partial substitution of carbon by nitrogen in graphite. <b>2011</b> , 105, 733-737	1
1510	Theory of defect dynamics in graphene: defect groupings and their stability. <b>2011</b> , 23, 337-346	9
1509	Attractive interaction between transition-metal atom impurities and vacancies in graphene: a first-principles study. <b>2011</b> , 129, 625-630	89
1508	Reduced graphene oxide-metal/metal oxide composites: facile synthesis and application in water purification. <b>2011</b> , 186, 921-31	421
1507	A novel amperometric hydrogen peroxide biosensor based on immobilized Hb in Pluronic P123-nanographene platelets composite. <b>2011</b> , 84, 427-32	39

1506	A facile one-step synthesis of TiO <sub>2</sub> /graphene composites for photodegradation of methyl orange. <b>2011</b> , 4, 274-283	165
1505	Catalyst-free growth of nanographene films on various substrates. <b>2011</b> , 4, 315-321	192
1504	Highly sensitive protein sensor based on thermally-reduced graphene oxide field-effect transistor. <b>2011</b> , 4, 921-930	76
1503	Chemical versus thermal folding of graphene edges. <b>2011</b> , 4, 1242-1247	8
1502	Ti-doped nano-porous graphene: A material for hydrogen storage and sensor. <b>2011</b> , 6, 204-208	15
1501	Transport in graphene nanostructures. <b>2011</b> , 6, 271-293	55
1500	Growth of carbon nanowalls at atmospheric pressure for one-step gas sensor fabrication. <b>2011</b> , 6, 202	104
1499	Investigation of the crystalline structure of PVDF in PVDF/PMMA/graphene polymer blend nanocomposites. <b>2011</b> , 32, 1451-1460	42
1498	Mechanical and electron-transport properties of graphene nanoribbons under tensile strain: A first-principles study. <b>2011</b> , 208, 2328-2331	10
1497	Controlling out-of-plane deformations of graphene nanobridges. <b>2011</b> , 248, 2839-2847	2
1496	Scanning tunneling microscopy and spectroscopy of graphene on insulating substrates. <b>2011</b> , 248, 2423-2434	29
1495	Simple preparation of high-quality graphene flakes without oxidation using potassium salts. <b>2011</b> , 7, 864-8	65
1494	Atomically thin mica flakes and their application as ultrathin insulating substrates for graphene. <b>2011</b> , 7, 2491-7	62
1493	Preparation of novel 3D graphene networks for supercapacitor applications. <b>2011</b> , 7, 3163-8	925
1492	Automated detection and characterization of graphene and few-layer graphite via Raman spectroscopy. <b>2011</b> , 42, 286-293	23
1491	Reduction of graphene oxide by aniline with its concomitant oxidative polymerization. <b>2011</b> , 32, 684-8	129
1490	Large-Scale Synthesis of Bi-layer Graphene in Strongly Coupled Stacking Order. <b>2011</b> , 21, 911-917	85
1489	Electromechanical Actuators Based on Graphene and Graphene/Fe <sub>3</sub> O <sub>4</sub> Hybrid Paper. <b>2011</b> , 21, 3778-3784	159

1488	Emerging transparent electrodes based on thin films of carbon nanotubes, graphene, and metallic nanostructures. <b>2011</b> , 23, 1482-513	1737
1487	Bioinspired effective prevention of restacking in multilayered graphene films: towards the next generation of high-performance supercapacitors. <b>2011</b> , 23, 2833-8	888
1486	Graphene: Piecing it together. <b>2011</b> , 23, 4471-90	115
1485	Graphene and Related Materials in Electrochemical Sensing. <b>2011</b> , 23, 803-826	225
1484	Open-shell characters and second hyperpolarizabilities of one-dimensional graphene nanoflakes composed of trigonal graphene units. <b>2011</b> , 12, 1697-707	45
1483	First-principles prediction on electronic and magnetic properties of hydrogenated AlN nanosheets. <b>2011</b> , 32, 3122-8	35
1482	Graphen: Materialien im Flachland (Nobel- Aufsatz). <b>2011</b> , 123, 7123-7141	22
1481	One-Step Synthesis of Bismuth Telluride Nanosheets of a Few Quintuple Layers in Thickness. <b>2011</b> , 123, 10581-10585	8
1480	Synthesis of Gold Square-like Plates from Ultrathin Gold Square Sheets: The Evolution of Structure Phase and Shape. <b>2011</b> , 123, 12453-12456	10
1479	Graphene: materials in the Flatland (Nobel lecture). <b>2011</b> , 50, 6986-7002	133
1478	One-step synthesis of bismuth telluride nanosheets of a few quintuple layers in thickness. <b>2011</b> , 50, 10397-40159	
1477	Synthesis of gold square-like plates from ultrathin gold square sheets: the evolution of structure phase and shape. <b>2011</b> , 50, 12245-8	107
1476	In situ growth of TiO <sub>2</sub> in interlayers of expanded graphite for the fabrication of TiO <sub>2</sub> -graphene with enhanced photocatalytic activity. <b>2011</b> , 17, 8379-87	128
1475	"Deconvoluted fullerene" derivatives: synthesis and characterization. <b>2011</b> , 17, 8604-8	19
1474	Preparation of sulfonic-functionalized graphene oxide as ion-exchange material and its application into electrochemiluminescence analysis. <b>2011</b> , 26, 3136-41	45
1473	Palladium nanoparticle/chitosan-grafted graphene nanocomposites for construction of a glucose biosensor. <b>2011</b> , 26, 3456-63	190
1472	Photocatalytic reduction of graphene oxides hybridized by ZnO nanoparticles in ethanol. <b>2011</b> , 49, 11-18	324
1471	Surface electrostatic potentials in carbon nanotubes and graphene membranes investigated with electron holography. <b>2011</b> , 49, 1423-1429	13

1470	An approach to produce single and double layer graphene from re-exfoliation of expanded graphite. <b>2011</b> , 49, 1946-1954	127
1469	Graphene and nanostructured MnO <sub>2</sub> composite electrodes for supercapacitors. <b>2011</b> , 49, 2917-2925	616
1468	High-quality few layer graphene produced by electrochemical intercalation and microwave-assisted expansion of graphite. <b>2011</b> , 49, 2809-2816	104
1467	High-power splitting of expanded graphite to produce few-layer graphene sheets. <b>2011</b> , 49, 2862-2868	25
1466	Controlling the formation of wrinkles in a single layer graphene sheet subjected to in-plane shear. <b>2011</b> , 49, 3107-3112	91
1465	Efficient synthesis of graphene sheets using pyrrole as a reducing agent. <b>2011</b> , 49, 3497-3502	175
1464	Graphene phytotoxicity in the seedling stage of cabbage, tomato, red spinach, and lettuce. <b>2011</b> , 49, 3907-3919	285
1463	Mechanical properties of bilayer graphene sheets coupled by sp <sup>3</sup> bonding. <b>2011</b> , 49, 4511-4517	191
1462	Studies on the properties of graphene oxide-reinforced starch biocomposites. <b>2011</b> , 84, 631-637	144
1461	Ultrasonic wave characteristics of a monolayer graphene on silicon substrate. <b>2011</b> , 93, 1997-2009	13
1460	Weyl-gauge symmetry of graphene. <b>2011</b> , 326, 1334-1353	47
1459	Relatively low temperature synthesis of graphene by radio frequency plasma enhanced chemical vapor deposition. <b>2011</b> , 257, 6531-6534	59
1458	The quantum Hall effect in graphene from a theoretical perspective. <b>2011</b> , 12, 369-378	16
1457	Model predictions of shear strain-induced ridge defects in graphene. <b>2011</b> , 49, 3571-3578	10
1456	Electrochemical detection of hydroquinone by graphene and Pt-graphene hybrid material synthesized through a microwave-assisted chemical reduction process. <b>2011</b> , 56, 2712-2716	65
1455	Rippling and the external electric field on conductance in corrugated graphene nanoribbons molecular device. <b>2011</b> , 406, 756-759	3
1454	Characteristics of graphene FET directly transformed from a resist pattern through interfacial graphitization of liquid gallium. <b>2011</b> , 88, 2524-2526	9
1453	Carbon nanosheets by microwave plasma enhanced chemical vapor deposition in CH <sub>4</sub> /Ar system. <b>2011</b> , 257, 9082-9085	66



1452	The interlayer shear effect on graphene multilayer resonators. <b>2011</b> , 59, 1613-1622	83
1451	Controllable synthesis of graphene sheets with different numbers of layers and effect of the number of graphene layers on the specific capacity of anode material in lithium-ion batteries. <b>2011</b> , 184, 982-989	80
1450	Direct electron transfer and electrocatalysis of hemoglobin immobilized on graphenePt nanocomposite. <b>2011</b> , 657, 28-33	51
1449	Stable aqueous dispersions of graphene prepared with hexamethylenetetramine as a reductant. <b>2011</b> , 354, 493-7	67
1448	Two dimensional self-assembly of bis-acylureas having various functional end groups. <b>2011</b> , 359, 428-35	12
1447	Graphene characterization: A fully non-linear spring-based finite element prediction. <b>2011</b> , 43, 1833-1839	43
1446	Significant thermal conductivity enhancement for nanofluids containing graphene nanosheets. <b>2011</b> , 375, 1323-1328	263
1445	Gaussian curvature energy of graphene sheets. <b>2011</b> , 375, 2437-2440	1
1444	Graphene based materials: Past, present and future. <b>2011</b> , 56, 1178-1271	2607
1443	Epoxy/graphene platelets nanocomposites with two levels of interface strength. <b>2011</b> , 52, 1603-1611	414
1442	Functionalization of reduced graphene oxide nanosheets via stacking interactions with the fluorescent and water-soluble perylene bisimide-containing polymers. <b>2011</b> , 52, 2376-2383	77
1441	Sonochemical synthesis of TiO <sub>2</sub> nanoparticles on graphene for use as photocatalyst. <b>2011</b> , 18, 1082-90	193
1440	Water/oil repellency and work of adhesion of liquid droplets on graphene oxide and graphene surfaces. <b>2011</b> , 205, 4554-4561	53
1439	Phonons of graphene and graphitic materials derived from the empirical potential LCBOP. <b>2011</b> , 605, 1611-1615	96
1438	The diffusion of hydrogen monomers on hole-doped graphitic lattices: over-barrier transition and quantum tunneling. <b>2011</b> , 23, 435007	4
1437	Topological transition of graphene from a quantum Hall metal to a quantum Hall insulator at $\nu = 0$ . <b>2011</b> , 13, 113008	2
1436	Low-energy electron point projection microscopy of suspended graphene, the ultimate microscope slide. <b>2011</b> , 13, 063011	41
1435	Ripples in Graphene: A Theoretical Analysis Using Two Dimensional Vibrating Membrane Model. <b>2011</b> ,	

1434	Optical conductivity of graphene in the presence of random lattice deformations. <b>2011</b> , 83,	8
1433	Suppression of anharmonicities in crystalline membranes by external strain. <b>2011</b> , 83,	89
1432	Localization and circulating currents in curved graphene devices. <b>2011</b> , 84,	24
1431	Perspective: The dawning of the age of graphene. <b>2011</b> , 135, 050901	30
1430	Frequency response of graphene phonons to heating and compression. <b>2011</b> , 99, 133108	18
1429	Electrostatic quantum dots in a suspended graphene monolayer. <b>2011</b> , 84,	6
1428	Pinning of a two-dimensional membrane on top of a patterned substrate: The case of graphene. <b>2011</b> , 83,	50
1427	Gated adatoms on graphene studied with first-principles calculations. <b>2011</b> , 83,	47
1426	Nonlocal effective-average-action approach to crystalline phantom membranes. <b>2011</b> , 83, 031137	30
1425	Quantum buckling. <b>2011</b> , 84, 040601	
1424	Structural and mechanical properties of partially unzipped carbon nanotubes. <b>2011</b> , 83,	23
1423	Fabrication and performance of graphene nanoelectromechanical systems. <b>2011</b> , 29, 050801	44
1422	Near-field radiative heat transfer between closely spaced graphene and amorphous SiO <sub>2</sub> . <b>2011</b> , 83,	64
1421	Measuring the corrugation amplitude of suspended and supported graphene. <b>2011</b> , 84,	40
1420	Theory and hierarchical calculations of the structure and energetics of [0001] tilt grain boundaries in graphene. <b>2011</b> , 84,	73
1419	Solution-chemistry approach to graphene nanostructures. <b>2011</b> , 21, 3295	59
1418	Stability of the bulk phase of layered ZnO. <b>2011</b> , 107, 085508	32
1417	Interacting electrons in graphene nanoribbons in the lowest Landau level. <b>2011</b> , 84,	13

1416	Morphology and structure of mono- and few-layer graphene produced by jet cavitation. <b>2011</b> , 99, 123112	31
1415	Dynamic ripples in single layer graphene. <b>2011</b> , 98, 063101	34
1414	Packing efficiency and accessible surface area of crumpled graphene. <b>2011</b> , 84,	99
1413	Oxidation and disorder in few-layered graphene induced by the electron-beam irradiation. <b>2011</b> , 98, 183112	37
1412	Electron-induced rippling in graphene. <b>2011</b> , 106, 045502	65
1411	Preparation of graphene by jet cavitation. <b>2011</b> , 22, 365306	86
1410	Folding and stacking defects of graphene flakes probed by electron nanobeam. <b>2011</b> , 99, 041904	7
1409	Surface-adsorption-induced bending behaviors of graphene nanoribbons. <b>2011</b> , 98, 121909	35
1408	Interfacial properties and morphologies of graphene-graphane composite sheets. <b>2011</b> , 109, 054314	25
1407	New Preparative Method of Zinc Oxide Nanofibers Grafted the Expanded Graphite. <b>2011</b> , 356-360, 480-483	
1406	Atomistic study of the mechanical stability of multi-layered graphene nanobridges. <b>2011</b> , 1297, 117	
1405	Raman analysis of epitaxial graphene grown on 4HSiC (0001) substrate under low pressure condition. <b>2011</b> , 20, 128101	4
1404	Extrinsic morphology of graphene. <b>2011</b> , 19, 054005	19
1403	Influence of substrate on edge rippling in graphene sheets. <b>2011</b> , 19, 054007	7
1402	Green energy storage materials: advanced nanostructured materials for lithium-ion batteries. <b>2011</b> ,	1
1401	Catalyst-free growth of mono- and few-atomic-layer boron nitride sheets by chemical vapor deposition. <b>2011</b> , 22, 215602	30
1400	Valley symmetry breaking and gap tuning in graphene by spin doping. <b>2011</b> , 13, 035023	15
1399	High-quality GS/TiO <sub>2</sub> composite for the photoanode of the dye-sensitized solar cells. <b>2011</b> ,	2

- 1398 Nano-Flower MnO<sub>2</sub> Coated Graphene Composite Electrodes for Energy Storage Devices. **2011**, 1303, 157
- 1397 Spatial Mapping of the Dirac Point in Monolayer and Bilayer Graphene. **2011**, 10, 88-91 5
- 1396 GRAPHENE: MATERIALS IN THE FLATLAND. **2011**, 25, 4081-4106 19
- 1395 Synthesis, Properties, and Applications of Low-Dimensional Carbon-Related Nanomaterials. **2011**, 2011, 1-21 73
- 1394 Twisted and coiled ultralong multilayer graphene ribbons. **2011**, 19, 054003 86
- 1393 Evaluation of Graphene and Graphene Derivatives for RF-Impedance Based Sensing. **2011**, 1303, 117 1
- 1392 Structural and Electronic Properties of Low-Dimensional C-Nanoassemblies and Possible Analogues for Si (and Ge). **2011**, 2011, 1-9 3
- 1391 Electron Transport Properties of Rippled Zigzag Graphene Nanoribbon. **2012**, 496, 251-254
- 1390 Highly Exfoliated Graphite Fluoride as a Precursor for Graphene Fluoride Dispersions and Films. **2012**, 107-112 12
- 1389 Fabrication of graphene based field effect transistor with copper electrodes. **2012**,
- 1388 Ultrathin MoS<sub>2</sub> membranes and their characterization through HRTEM and electron diffraction studies. **2012**, 18, 1582-1583
- 1387 Scanning Tunnelling Microscopy of Suspended Graphene. **2012**, 371, 012070 2
- 1386 Synthesis, electromechanical characterization, and applications of graphene nanostructures. **2012**, 6, 064501 9
- 1385 Magnetoresistance of Bilayer Graphene in Parallel Magnetic Fields. **2012**, 81, 013702 4
- 1384 Raman spectra of bilayer graphene covered with Poly(methyl methacrylate) thin film. **2012**, 2, 032122 22
- 1383 Unraveling siRNA unzipping kinetics with graphene. **2012**, 137, 054903 15
- 1382 Magnon scattering in single and bilayer graphene intercalates. **2012**, 112, 114308 1
- 1381 Nucleobase adsorbed at graphene devices: Enhance bio-sensorics. **2012**, 100, 063101 40

1380	Topologically protected Landau levels in bilayer graphene in finite electric fields. <b>2012</b> , 85,	6
1379	Ripples in a string coupled to Glauber spins. <b>2012</b> , 85, 031125	16
1378	Broad frequency and amplitude control of vibration in freestanding graphene via scanning tunneling microscopy with calculated dynamic pseudo-magnetic fields. <b>2012</b> , 112, 124317	4
1377	Minigap isotropy and broken chirality in graphene with periodic corrugation enhanced by cluster superlattices. <b>2012</b> , 85,	26
1376	Unidirectional ripples in strained graphene nanoribbons with clamped edges at zero and finite temperatures. <b>2012</b> , 86,	56
1375	Simple Method for the Preparation of Composites Based on PA6 and Partially Exfoliated Graphite. <b>2012</b> , 2012, 1-5	7
1374	Effect of radical fluorination on mono- and bi-layer graphene in Ar/F2 plasma. <b>2012</b> , 101, 163105	36
1373	Stretch-induced softening of bending rigidity in graphene. <b>2012</b> , 100, 191913	25
1372	Atomic control of strain in freestanding graphene. <b>2012</b> , 85,	59
1371	Bioinspired design of functionalised graphene. <b>2012</b> , 38, 695-703	14
1370	Mode shape and dispersion relation of bending waves in thin silicon membranes. <b>2012</b> , 85,	8
1369	FOLDING MECHANICS OF BI-LAYER GRAPHENE SHEET. <b>2012</b> , 02, 1240007	4
1368	Effective Hamiltonian of strained graphene. <b>2012</b> , 24, 205302	25
1367	Experimental Review of Graphene. <b>2012</b> , 2012, 1-56	303
1366	A simple way of improving graphite nanoplatelets (GNP) for their incorporation into a polymer matrix. <b>2012</b> , 6, 142-147	20
1365	Electrocatalytic Oxidation of Methanol on Platinum/Graphene Hybrid Modified Glassy Carbon Electrode. <b>2012</b> , 600, 170-173	
1364	Curvature-Induced Optical Transitions in Graphene. <b>2012</b> , 20, 558-562	9
1363	Synthesis and Characterization of Novel Graphene Silicon Oxide Nanocomposite Material. <b>2012</b> , 1400, 73	1

1362	Low energy electron microscopy and photoemission electron microscopy investigation of graphene. <b>2012</b> , 24, 314209	14
1361	Selective Determination of Dopamine at Poly Sulfosalicylic Acid/Graphene Modified Electrode with Composite Properties of Biochemical Materials. <b>2012</b> , 600, 230-233	2
1360	Progress in studies of graphene growth mechanism on transition-metal surfaces. <b>2012</b> , 57, 987-994	1
1359	A new loss mechanism in graphene nanoresonators due to the synthetic electric fields caused by inherent out-of-plane membrane corrugations. <b>2012</b> , 45, 435102	9
1358	In-situ Observation of Graphene Growth on Ultra Flat Metal Substrates. <b>2012</b> , 33, 557-562	
1357	Ripples in a graphene membrane coupled to Glauber spins. <b>2012</b> , 2012, P09015	12
1356	Facile hydrothermal preparation of titanium dioxide decorated reduced graphene oxide nanocomposite. <b>2012</b> , 7, 3379-87	61
1355	Non-covalent assembly of hybrid nanostructures of gold and palladium nanoparticles with carbon nanotubes. <b>2012</b> , 103, 901-905	3
1354	Different Characterization Techniques to Evaluate Graphene and Its Properties. <b>2012</b> , 95-138	1
1353	Shape-Controlled Synthesis of Platinum Nanostructures as Electrocatalyst for PEM Fuel Cell Applications. <b>2012</b> , 415-492	
1352	Patterning of graphene. <b>2012</b> , 4, 4883-99	93
1351	Sandwich-like graphene nanocomposites armed with nanoneedles. <b>2012</b> , 22, 3148	23
1350	Reversible Defect in Graphene Investigated by Tip-Enhanced Raman Spectroscopy. <b>2012</b> , 7, 555-561	34
1349	From atoms to grains: Transmission electron microscopy of graphene. <b>2012</b> , 37, 1214-1221	6
1348	Phonon self-energy corrections to nonzero wave-vector phonon modes in single-layer graphene. <b>2012</b> , 109, 046801	33
1347	A stable "flat" form of two-dimensional crystals: could graphene, silicene, germanene be minigap semiconductors?. <b>2012</b> , 12, 1045-52	160
1346	Electronic Transport in Graphene. <b>2012</b> , 17-49	
1345	Preparation of graphene with few defects using expanded graphite and rose bengal. <b>2012</b> , 22, 4806	34

1344	Ultraviolet-visible spectroscopy of graphene oxides. <b>2012</b> , 2, 032146	196
1343	Carbon Nanoforms. <b>2012</b> , 995-1070	
1342	CdS/graphene nanocomposite: synthesis, adsorption kinetics and high photocatalytic performance under visible light irradiation. <b>2012</b> , 36, 1781	71
1341	Covalent functionalization of graphene with poly(methyl methacrylate) by atom transfer radical polymerization at room temperature. <b>2012</b> , 3, 2768	46
1340	Assembly of suspended graphene on carbon nanotube scaffolds with improved functionalities. <b>2012</b> , 5, 783-795	9
1339	Chapter 1:Graphene Functionalization: A Review. <b>2012</b> , 1-52	3
1338	Fabrication of unipolar graphene field-effect transistors by modifying source and drain electrode interfaces with zinc porphyrin. <b>2012</b> , 4, 1434-9	10
1337	Graphene and Its Derivative-based Biosensing Systems. <b>2012</b> , 40, 1772-1779	11
1336	Modulation-doped growth of mosaic graphene with single-crystalline p-n junctions for efficient photocurrent generation. <b>2012</b> , 3, 1280	87
1335	Electronic and vibrational signatures of Stone-Wales defects in graphene: First-principles analysis. <b>2012</b> , 86,	61
1334	Graphene/Li-ion battery. <b>2012</b> , 112, 124323	41
1333	Ultrahigh conductivity of large area suspended few layer graphene films. <b>2012</b> , 101, 263101	17
1332	Hemin-functionalized reduced graphene oxide nanosheets reveal peroxynitrite reduction and isomerization activity. <b>2012</b> , 18, 15122-32	28
1331	Nanocomposite of polymerized ionic liquid and graphene used as modifier for direct electrochemistry of cytochrome c and nitric oxide biosensing. <b>2012</b> , 16, 3289-3297	22
1330	A mixed-solvent strategy for facile and green preparation of graphene by liquid-phase exfoliation of graphite. <b>2012</b> , 14, 1	104
1329	Manganese-incorporated iron(III) oxide/graphene magnetic nanocomposite: synthesis, characterization, and application for the arsenic(III)-sorption from aqueous solution. <b>2012</b> , 14, 1	33
1328	Comparison study of structural and optical properties of boron-doped and undoped graphene oxide films. <b>2012</b> , 211-212, 369-377	68
1327	A Novel Inspection for Deformation Phenomenon of Reduced-graphene Oxide via Quantitative Nano-mechanical Atomic Force Microscopy. <b>2012</b> , 36, 571-577	4

1326	Effects of alloying 30 at. % Ni using a Cu catalyst on the growth of bilayer graphene. <b>2012</b> , 8, 609-616	4
1325	Manganese-incorporated iron(III) oxide-graphene magnetic nanocomposite: synthesis, characterization, and application for the arsenic(III)-sorption from aqueous solution. <b>2012</b> , 149-162	3
1324	Effect of short-range interactions on the quantum critical behavior of spinless fermions on the honeycomb lattice. <b>2012</b> , 86,	21
1323	Graphene oxide added carbonyl iron microsphere system and its magnetorheology under applied magnetic fields. <b>2012</b> , 111, 07E724	19
1322	Ripple induced changes in the wavefunction of graphene: an example of a fundamental symmetry breaking. <b>2012</b> , 4, 1167-70	16
1321	Strong reduced graphene oxide-polymer composites: hydrogels and wires. <b>2012</b> , 2, 6988	87
1320	Pyrolysis-assisted graphene exfoliation from graphite particles deposited on photoresist pillars. <b>2012</b> ,	
1319	Electronic Structure of Corrugated Graphene Sheet. <b>2012</b> , 51, 02BN05	1
1318	Cross-sectional imaging of individual layers and buried interfaces of graphene-based heterostructures and superlattices. <b>2012</b> , 11, 764-7	664
1317	Stability, electronic and magnetic properties of embedded triangular graphene nanoflakes. <b>2012</b> , 14, 1253-61	10
1316	High throughput theory and simulation of nanomaterials: exploring the stability and electronic properties of nanographene. <b>2012</b> , 22, 18119	20
1315	Electron transparent graphene windows for environmental scanning electron microscopy in liquids and dense gases. <b>2012</b> , 23, 505704	43
1314	Electrical conductivity of copper-graphene composite films synthesized by electrochemical deposition with exfoliated graphene platelets. <b>2012</b> , 30, 03D109	49
1313	Surface graft configuration dependency of the morphologies of heterosurface sheet polymers. <b>2012</b> , 116, 5771-6	5
1312	Electronic features of rippled graphene. <b>2012</b> ,	
1311	Graphene arrested in laponite-water colloidal glass. <b>2012</b> , 28, 4009-15	29
1310	Interaction of Nucleobases with Wrinkled Graphene Surface: Dispersion Corrected DFT and AFM Studies. <b>2012</b> , 116, 4374-4379	76
1309	Inducing an incipient terahertz finite plasmonic crystal in coupled two dimensional plasmonic cavities. <b>2012</b> , 109, 126803	45



1308	Atmospheric Pressure, Temperature-Induced Conversion of Organic Monolayers into Nanocrystalline Graphene. <b>2012</b> , 116, 12295-12303	19
1307	Intersubunit Electron Transfer (IET) in Quantum Dots/Graphene Complex: What Features Does IET Endow the Complex with?. <b>2012</b> , 116, 15833-15838	25
1306	Stacking faults and partial dislocations in graphene. <b>2012</b> , 92, 2004-2021	17
1305	Model of ripples in graphene. <b>2012</b> , 86,	18
1304	Microstructure evolution of diazonium functionalized graphene: A potential approach to change graphene electronic structure. <b>2012</b> , 22, 2063-2068	35
1303	Magnetism of Single Vacancies in Rippled Graphene. <b>2012</b> , 116, 7602-7606	40
1302	Zeptogram sensing from gigahertz vibration: Graphene based nanosensor. <b>2012</b> , 44, 1528-1534	48
1301	Thermal vibration analysis of orthotropic nanoplates based on nonlocal continuum mechanics. <b>2012</b> , 44, 1950-1962	36
1300	Molecular dynamics modeling and simulations to understand gate-tunable graphene-nanoribbon-resonator. <b>2012</b> , 45, 194-200	20
1299	Electrochemical logic aptasensor based on graphene. <b>2012</b> , 169, 255-260	17
1298	Pseudo-magnetic field distribution and pseudo-Landau levels in suspended graphene flakes. <b>2012</b> , 152, 1442-1445	13
1297	Methane molecule over the defected and rippled graphene sheet. <b>2012</b> , 152, 1493-1496	16
1296	High-yield chemical vapor deposition growth of high-quality large-area AB-stacked bilayer graphene. <b>2012</b> , 6, 8241-9	215
1295	Layer-dependent fluorination and doping of graphene via plasma treatment. <b>2012</b> , 23, 115706	49
1294	Graphene-based materials for catalysis. <b>2012</b> , 2, 54-75	791
1293	Band Gap Tuning of Graphene by Adsorption of Aromatic Molecules. <b>2012</b> , 116, 13788-13794	73
1292	Preparation of alkyl-modified silicon nanosheets by hydrosilylation of layered polysilane (Si <sub>6</sub> H <sub>6</sub> ). <b>2012</b> , 134, 5452-5	107
1291	Biomolecule-assisted, environmentally friendly, one-pot synthesis of CuS/reduced graphene oxide nanocomposites with enhanced photocatalytic performance. <b>2012</b> , 28, 12893-900	246

1290	Shifting atomic patterns: on the origin of the different atomic-scale patterns of graphite as observed using scanning tunnelling microscopy. <b>2012</b> , 23, 185703	9
1289	Thermal Oxidation and Unwrinkling of Chemical Vapor Deposition-Grown Graphene. <b>2012</b> , 116, 20600-20606	52
1288	Synthesis of graphene on a Ni film by radio-frequency plasma-enhanced chemical vapor deposition. <b>2012</b> , 57, 3040-3044	14
1287	Electromechanical actuator with controllable motion, fast response rate, and high-frequency resonance based on graphene and polydiacetylene. <b>2012</b> , 6, 4508-19	125
1286	A facile route to the synthesis copper oxide/reduced graphene oxide nanocomposites and electrochemical detection of catechol organic pollutant. <b>2012</b> , 14, 6710	161
1285	Facile synthesis of TiO <sub>2</sub> /graphene composites for selective enrichment of phosphopeptides. <b>2012</b> , 4, 1577-80	67
1284	Graphene transfer: key for applications. <b>2012</b> , 4, 5527-37	352
1283	Conductivity of suspended graphene at the Dirac point. <b>2012</b> , 86,	51
1282	Layer-by-layer assembly and tribological property of multilayer ultrathin films constructed by modified graphene sheets and polyethyleneimine. <b>2012</b> , 258, 2231-2236	43
1281	Graphene oxide with improved electrical conductivity for supercapacitor electrodes. <b>2012</b> , 258, 3726-3731	90
1280	Influence of different buffer gases on synthesis of few-layered graphene by arc discharge method. <b>2012</b> , 258, 4523-4531	111
1279	Production of few-layer graphene through liquid-phase pulsed laser exfoliation of highly ordered pyrolytic graphite. <b>2012</b> , 258, 9092-9095	30
1278	Reduced graphene oxide/hydroxylated styreneButadieneStyrene tri-block copolymer electroconductive nanocomposites: Preparation and properties. <b>2012</b> , 177, 1163-1169	27
1277	Theoretical approaches to graphene and graphene-based materials. <b>2012</b> , 7, 180-200	109
1276	Reduced graphene oxide/CdS for efficiently photocatalytic degradation of methylene blue. <b>2012</b> , 524, 5-12	123
1275	Synthesis, characterization and optical properties of graphene sheets-ZnO multipod nanocomposites. <b>2012</b> , 526, 129-134	42
1274	Modulation of electric behavior by position-dependent substitutional impurity in zigzag-edged graphene nanoribbon. <b>2012</b> , 60, 234-238	11
1273	Vibration of single-layered graphene sheet-based nanomechanical sensor via nonlocal Kirchhoff plate theory. <b>2012</b> , 61, 200-205	137

1272	Study on graphene-oxide-based polyacrylamide composite hydrogels. <b>2012</b> , 43, 1476-1481	128
1271	The mechanics of graphene nanocomposites: A review. <b>2012</b> , 72, 1459-1476	893
1270	Simulation of ripples in single layer graphene sheets and study of their vibrational and elastic properties. <b>2012</b> , 51, 96-102	18
1269	Ultimate strength, ripples, sound velocities, and density of phonon states of strained graphene. <b>2012</b> , 53, 194-203	36
1268	A facile two-step electroreductive synthesis of anthraquinone/graphene nanocomposites as efficient electrocatalyst for O <sub>2</sub> reduction in neutral medium. <b>2012</b> , 22, 69-72	32
1267	Synthesis, Characterization, and Biomedical Applications of Graphene. <b>2012</b> ,	
1266	Chemical intuition or chemical institution?. <b>2012</b> , 4, 237-8	8
1265	One-pot green synthesis of Ag nanoparticles-graphene nanocomposites and their applications in SERS, H <sub>2</sub> O <sub>2</sub> , and glucose sensing. <b>2012</b> , 2, 538-545	250
1264	Graphene-Supported High-Resolution TEM and STEM Imaging of Silicon Nanocrystals and their Capping Ligands. <b>2012</b> , 116, 22463-22468	64
1263	Graphene: an emerging electronic material. <b>2012</b> , 24, 5782-825	603
1262	Graphene-based electrodes. <b>2012</b> , 24, 5979-6004	756
1261	Amorphous carbon under 80 kV electron irradiation: a means to make or break graphene. <b>2012</b> , 24, 5630-5	52
1260	Centimeter-sized dried foam films of graphene: preparation, mechanical and electronic properties. <b>2012</b> , 24, 6229-33	35
1259	Spin filtering in a ferromagnetic graphene superlattice. <b>2012</b> , 85, 1	18
1258	Highly efficient synthesis of graphene nanocomposites. <b>2012</b> , 12, 84-90	236
1257	One-pot synthesis of large scale graphene nanosheets from graphite-liquid crystal composite via thermal treatment. <b>2012</b> , 22, 3825	56
1256	Flame-Retardancy Characterization of Polymer Nanocomposites. <b>2012</b> , 33-74	
1255	Fabrication of Graphene-Based Electrochemical Capacitors. <b>2012</b> , 51, 01AH06	5

1254	In situ observation of electrostatic and thermal manipulation of suspended graphene membranes. <b>2012</b> , 12, 5470-4	60
1253	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
1252	Graphene oxide wrapping on squaraine-loaded mesoporous silica nanoparticles for bioimaging. <b>2012</b> , 134, 17346-9	171
1251	Effect of grain boundary on the buckling of graphene nanoribbons. <b>2012</b> , 100, 101905	16
1250	Electronic properties of graphene: a perspective from scanning tunneling microscopy and magnetotransport. <b>2012</b> , 75, 056501	180
1249	Nanoscale electron diffraction and plasmon spectroscopy of single- and few-layer boron nitride. <b>2012</b> , 85,	41
1248	Microwave-Assisted Synthesis of Graphene Nanosheets/Gold Nanocomposites with Enhancing Electrochemical Response. <b>2012</b> , 20, 31-40	4
1247	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
1246	Nano-scale fracture toughness and behavior of graphene/epoxy interface. <b>2012</b> , 112, 023510	25
1245	Growth mechanism and controlled synthesis of AB-stacked bilayer graphene on Cu-Ni alloy foils. <b>2012</b> , 6, 7731-8	143
1244	One-pot photochemical synthesis of graphene composites uniformly deposited with silver nanoparticles and their high catalytic activity towards the reduction of 2-nitroaniline. <b>2012</b> , 22, 7245	149
1243	Nanonet as a scaffold with targeted functionalities. <b>2012</b> , 22, 24983	13
1242	Alternative State Variables for Graphene Transistors. <b>2012</b> , 93-111	
1241	Recyclable Pd/graphene catalyst: mechanistic insights into heterogeneous and homogeneous catalysis. <b>2012</b> , 2, 9380	52
1240	Tuning gas-sensing properties of reduced graphene oxide using tin oxide nanocrystals. <b>2012</b> , 22, 11009	240
1239	Resonant tunneling through double barrier graphene systems: A comparative study of Klein and non-Klein tunneling structures. <b>2012</b> , 112, 073711	28
1238	Thermal treatment effects on charge storage performance of graphene-based materials for supercapacitors. <b>2012</b> , 4, 3239-46	47
1237	Production and processing of graphene and 2d crystals. <b>2012</b> , 15, 564-589	745

1236	Formation and control of wrinkles in graphene by the wedging transfer method. <b>2012</b> , 101, 103116	102
1235	Synthesis of graphene nanosheets via oxalic acid-induced chemical reduction of exfoliated graphite oxide. <b>2012</b> , 2, 1168-1173	129
1234	Non-covalently modified graphene sheets by imidazolium ionic liquids for multifunctional polymer nanocomposites. <b>2012</b> , 22, 5666	135
1233	Graphene-based flexible and stretchable thin film transistors. <b>2012</b> , 4, 4870-82	125
1232	Facile method for the preparation of water dispersible graphene using sulfonated poly(ether-ether-ketone) and its application as energy storage materials. <b>2012</b> , 28, 9825-33	76
1231	Properties of suspended graphene membranes. <b>2012</b> , 15, 238-245	84
1230	Phononics in low-dimensional materials. <b>2012</b> , 15, 266-275	209
1229	Effects of substrate material on carbon films grown by laser molecular beam epitaxy. <b>2012</b> , 263, 362-366	3
1228	A mesh-free computational framework for predicting buckling behaviors of single-walled carbon nanocones under axial compression based on the moving Kriging interpolation. <b>2012</b> , 247-248, 103-112	27
1227	Modification of graphene as active hydrogen storage medium by strain engineering. <b>2012</b> , 65, 144-148	19
1226	Electrochemical DNA sensor based on three-dimensional folding paper device for specific and sensitive point-of-care testing. <b>2012</b> , 80, 334-341	147
1225	Electrochemical behaviors and simultaneous determination of guanine and adenine based on graphene/boric liquid chitosan composite film modified glassy carbon electrode. <b>2012</b> , 80, 346-353	90
1224	Homogeneous growth of nano-sized $\text{Ni}(\text{OH})_2$ on reduced graphene oxide for high-performance supercapacitors. <b>2012</b> , 81, 321-329	89
1223	Microwave-assisted synthesis of reduced graphene oxide/carbon nanotube composites as negative electrode materials for lithium ion batteries. <b>2012</b> , 229, 9-13	31
1222	Thermal conductivity of defective graphene. <b>2012</b> , 376, 3668-3672	78
1221	Impact of nanoparticle size and shape on selective surface segregation in polymer nanocomposites. <b>2012</b> , 53, 5087-5096	7
1220	Interfacial polymerized polyaniline/graphite oxide nanocomposites toward electrochemical energy storage. <b>2012</b> , 53, 5953-5964	148
1219	Facile synthesis of graphene by pyrolysis of poly(methyl methacrylate) on nickel particles in the confined microzones. <b>2012</b> , 47, 4082-4088	18

1218	Preparation of graphene nanosheets through repeated supercritical carbon dioxide process. <b>2012</b> , 89, 343-346	29
1217	Synthesis and separation of dyes via Ni@reduced graphene oxide nanostructures. <b>2012</b> , 22, 1876-1883	76
1216	Graphene oxide reduced and modified by soft nanoparticles and its catalysis of the Knoevenagel condensation. <b>2012</b> , 22, 4772	115
1215	Layer-by-layer assembled sulfonated-graphene/polyaniline nanocomposite films: enhanced electrical and ionic conductivities, and electrochromic properties. <b>2012</b> , 2, 10537	55
1214	Metal ion binding with carbon nanotubes and graphene: Effect of chirality and curvature. <b>2012</b> , 549, 39-43	35
1213	Easy synthesis of nitrogen-doped graphene-silver nanoparticle hybrids by thermal treatment of graphite oxide with glycine and silver nitrate. <b>2012</b> , 50, 5148-5155	35
1212	Rapid and efficient synthesis of soluble graphene nanosheets using N-methyl-p-aminophenol sulfate as a reducing agent. <b>2012</b> , 23, 485604	8
1211	Two-Dimensional Polymers. <b>2012</b> , 841-900	1
1210	High-throughput, direct exfoliation of graphite to graphene via a cooperation of supercritical CO <sub>2</sub> and pyrene-polymers. <b>2012</b> , 2, 10632	46
1209	Self-assembly of ultrathin porous NiO nanosheets/graphene hierarchical structure for high-capacity and high-rate lithium storage. <b>2012</b> , 22, 2844	236
1208	Electronic structure investigation of MoS <sub>2</sub> and MoSe <sub>2</sub> using angle-resolved photoemission spectroscopy and ab initio band structure studies. <b>2012</b> , 24, 475504	60
1207	Magnetic anisotropy and engineering of magnetic behavior of the edges in Co embedded graphene nanoribbons. <b>2012</b> , 108, 187208	45
1206	Interlayer shear effect on multilayer graphene subjected to bending. <b>2012</b> , 100, 101909	77
1205	Identifying hexagonal boron nitride monolayers by transmission electron microscopy. <b>2012</b> , 18, 558-67	7
1204	Simultaneous Reduction and Surface Functionalization of Graphene Oxide by Natural Cellulose with the Assistance of the Ionic Liquid. <b>2012</b> , 116, 16294-16299	65
1203	Modulation of curved graphene nanoribbon optical absorption spectra by an electric field. <b>2012</b> , 92, 4376-4388	3
1202	Tunable wrinkling pattern in annular graphene under circular shearing at inner edge. <b>2012</b> , 4, 5077-81	32
1201	A two-dimensional polymer prepared by organic synthesis. <b>2012</b> , 4, 287-91	333

1200	Folded graphene membranes: mapping curvature at the nanoscale. <b>2012</b> , 12, 5207-12	50
1199	General route to graphene with liquid-like behavior by non-covalent modification. <b>2012</b> , 8, 9214	81
1198	Thermomechanical properties of graphene: valence force field model approach. <b>2012</b> , 24, 175303	14
1197	On the Evolution of Pt Nanoparticles on Few-Layer Graphene Supports in the High-Temperature Range. <b>2012</b> , 116, 9274-9282	43
1196	Capillary coated with graphene and graphene oxide sheets as stationary phase for capillary electrochromatography and capillary liquid chromatography. <b>2012</b> , 84, 8880-90	111
1195	Graphene-based supercapacitors in the parallel-plate electrode configuration: ionic liquids versus organic electrolytes. <b>2012</b> , 154, 249-63; discussion 313-33, 465-71	62
1194	Charge separation and ultraviolet photovoltaic conversion of ZnO quantum dots conjugated with graphene nanoshells. <b>2012</b> , 5, 747-761	37
1193	Vapor-solid growth of few-layer graphene using radio frequency sputtering deposition and its application on field emission. <b>2012</b> , 6, 3727-33	82
1192	Tunneling time and Hartman effect in a ferromagnetic graphene superlattice. <b>2012</b> , 2, 012123	18
1191	Twinning and twisting of tri- and bilayer graphene. <b>2012</b> , 12, 1609-15	194
1190	A general approach to one-pot fabrication of crumpled graphene-based nanohybrids for energy applications. <b>2012</b> , 6, 7505-13	186
1189	A facile one-step method to produce Ni/graphene nanocomposites and their application to the thermal decomposition of ammonium perchlorate. <b>2012</b> , 14, 428-434	63
1188	Hydrogenated graphene: Structures and surface work function. <b>2012</b> ,	1
1187	High-conductivity graphene nanocomposite via facile, covalent linkage of gold nanoparticles to graphene oxide. <b>2012</b> , 57, 3086-3092	8
1186	Facile fabrication of graphene devices through metalloporphyrin induced photocatalytic reduction. <b>2012</b> , 2, 4120	19
1185	Liquid phase growth of graphene on silicon carbide. <b>2012</b> , 50, 5076-5084	14
1184	One-step graphene coating of heteroepitaxial GaN films. <b>2012</b> , 23, 435603	28
1183	Edge stresses of non-stoichiometric edges in two-dimensional crystals. <b>2012</b> , 100, 251906	17

1182	Temperature dependence of the conductivity of graphene on boron nitride. <b>2012</b> , 85,	31
1181	Water-gated charge doping of graphene induced by mica substrates. <b>2012</b> , 12, 648-54	146
1180	Thermal rippling behavior of graphane. <b>2012</b> , 86,	46
1179	Flaw insensitive fracture in nanocrystalline graphene. <b>2012</b> , 12, 4605-10	187
1178	Few-atomic-layered boron carbonitride nanosheets prepared by chemical vapor deposition. <b>2012</b> , 4, 120-3	54
1177	Selective molecular sieving through porous graphene. <b>2012</b> , 7, 728-32	829
1176	Layer number and stacking sequence imaging of few-layer graphene by transmission electron microscopy. <b>2012</b> , 12, 4635-41	51
1175	Synthesis of neutral red covalently functionalized graphene nanocomposite and the electrocatalytic properties toward uric acid. <b>2012</b> , 22, 602-608	25
1174	Aerosol synthesis of cargo-filled graphene nanosacks. <b>2012</b> , 12, 1996-2002	166
1173	First-principles study on electronic structures and magnetic properties of AlN nanosheets and nanoribbons. <b>2012</b> , 111, 043702	44
1172	Facile synthesis of well-dispersed graphene by F <sub>2</sub> induced reduction of graphene oxide. <b>2012</b> , 22, 13064	204
1171	Mechanical, thermal and swelling properties of poly(acrylic acid)/graphene oxide composite hydrogels. <b>2012</b> , 8, 1831-1836	152
1170	Adsorption Behaviors of Graphene and Graphene-related Materials. <b>2012</b> , 435-467	1
1169	Stimuli-responsive peroxidase mimicking at a smart graphene interface. <b>2012</b> , 48, 7055-7	71
1168	Graphene Doped Molecularly Imprinted Electrochemical Sensor for Uric Acid. <b>2012</b> , 45, 2717-2727	21
1167	High efficiency ultraviolet photovoltaic cells based on ZnO@60 core-shell QDs with organic/inorganic multilayer structure. <b>2012</b> , 22, 816-819	25
1166	Modeling noncontact atomic force microscopy resolution on corrugated surfaces. <b>2012</b> , 3, 230-7	2
1165	Flexible pillared graphene-paper electrodes for high-performance electrochemical supercapacitors. <b>2012</b> , 8, 452-9	276



1164	Optical identification of single- and few-layer MoS <sub>2</sub> sheets. <b>2012</b> , 8, 682-6	249
1163	Strain-induced ripples in graphene nanoribbons with clamped edges. <b>2012</b> , 249, 1393-1398	35
1162	Carbon nanomaterials for advanced energy conversion and storage. <b>2012</b> , 8, 1130-66	1149
1161	Structure and morphology of charged graphene platelets in solution by small-angle neutron scattering. <b>2012</b> , 134, 8302-5	53
1160	Rashba spin-orbit effect on tunneling time in graphene superlattice. <b>2012</b> , 111, 093724	16
1159	Decontamination of bisphenol A from aqueous solution by graphene adsorption. <b>2012</b> , 28, 8418-25	635
1158	Low-temperature, site selective graphitization of SiC via ion implantation and pulsed laser annealing. <b>2012</b> , 100, 193105	18
1157	Inkjet-printed graphene electronics. <b>2012</b> , 6, 2992-3006	864
1156	High-resolution EM of colloidal nanocrystal growth using graphene liquid cells. <b>2012</b> , 336, 61-4	829
1155	Direct imaging of atomic-scale ripples in few-layer graphene. <b>2012</b> , 12, 2278-82	30
1154	van der Waals epitaxy of InAs nanowires vertically aligned on single-layer graphene. <b>2012</b> , 12, 1431-6	97
1153	Atom-by-atom nucleation and growth of graphene nanopores. <b>2012</b> , 109, 5953-7	224
1152	Scanning tunnelling microscopy of suspended graphene. <b>2012</b> , 4, 3065-8	64
1151	Coherent atomic and electronic heterostructures of single-layer MoS <sub>2</sub> . <b>2012</b> , 6, 7311-7	696
1150	Two-dimensional nanoarchitectonics: organic and hybrid materials. <b>2012</b> , 4, 6102-17	116
1149	Ultrasonication-assisted direct functionalization of graphene with macromolecules. <b>2012</b> , 2, 4713	53
1148	Quenching of the quantum Hall effect in graphene with scrolled edges. <b>2012</b> , 108, 166602	9
1147	A simple road for the transformation of few-layer graphene into MWNTs. <b>2012</b> , 134, 13310-5	53

1146	Carbon nanostructure-derived polyaniline metacomposites: electrical, dielectric, and giant magnetoresistive properties. <b>2012</b> , 28, 10246-55	159
1145	Electrically controlled electron transfer and resistance switching in reduced graphene oxide noncovalently functionalized with thionine. <b>2012</b> , 22, 16422	33
1144	Towards Rationally Designed Graphene-Based Materials and Devices. <b>2012</b> , 213, 1091-1100	19
1143	Emissive ZnO-graphene quantum dots for white-light-emitting diodes. <b>2012</b> , 7, 465-71	577
1142	Spin-half paramagnetism in graphene induced by point defects. <b>2012</b> , 8, 199-202	638
1141	Structural and electronic properties of T graphene: a two-dimensional carbon allotrope with tetrarings. <b>2012</b> , 108, 225505	261
1140	Graphene oxide and its reduction: modeling and experimental progress. <b>2012</b> , 2, 2643	418
1139	An overview of the applications of graphene-based materials in supercapacitors. <b>2012</b> , 8, 1805-34	1082
1138	Greener Electrochemical Synthesis of High Quality Graphene Nanosheets Directly from Pencil and its SPR Sensing Application. <b>2012</b> , 22, 2352-2362	116
1137	Duplex DNA/Graphene Oxide Biointerface: From Fundamental Understanding to Specific Enzymatic Effects. <b>2012</b> , 22, 3083-3088	115
1136	Synthesis of Potassium-Modified Graphene and Its Application in Nitrite-Selective Sensing. <b>2012</b> , 22, 1981-1988	90
1135	A Facile Approach to Chemically Modified Graphene and its Polymer Nanocomposites. <b>2012</b> , 22, 2735-2743	211
1134	Facile synthesis of a large quantity of graphene by chemical vapor deposition: an advanced catalyst carrier. <b>2012</b> , 24, 2491-5	67
1133	Covalent functionalization of strained graphene. <b>2012</b> , 13, 1463-9	36
1132	Transformation of Round-shaped Graphene Disks into Hexagonal Domains in CVD. <b>2012</b> , 18, 185-190	1
1131	Lithium Adsorption on Graphene: From Isolated Adatoms to Metallic Sheets. <b>2012</b> , 8, 1064-71	70
1130	Industrial graphene metrology. <b>2012</b> , 4, 3807-19	19
1129	Chemistry, physics and biology of graphene-based nanomaterials: new horizons for sensing, imaging and medicine. <b>2012</b> , 22, 14313	105

1128 Modeling of Nanostructures. **2012**, 995-1041

1127 Aligning Amyloid-Like Fibrils on Nanopatterned Graphite. **2012**, 2, 75-82 7

1126 Preparation and characterization of poly(L-lactide)/graphene composites using the in situ ring-opening polymerization of PLLA with graphene as the initiator. **2012**, 22, 10805 71

1125 Clustering and magnetic anisotropy of Fe adatoms on graphene. **2012**, 85, 25

1124 Long-scale dynamics of crystalline membranes. **2012**, 85, 10

1123 Three-dimensional flower-like nickel oxide supported on graphene sheets as electrode material for supercapacitors. **2012**, 63, 146-152 57

1122 A brief review of graphene-based material synthesis and its application in environmental pollution management. **2012**, 57, 1223-1234 134

1121 A functionalized graphene oxide-iron oxide nanocomposite for magnetically targeted drug delivery, photothermal therapy, and magnetic resonance imaging. **2012**, 5, 199-212 494

1120 A theoretical quest for graphene nanoribbons: effects of nitrogen substitution on the ground state alteration. **2012**, 143, 551-556

1119 A novel hydrogen peroxide sensor based on Ag nanoparticles electrodeposited on chitosan-graphene oxide/cysteamine-modified gold electrode. **2012**, 16, 1693-1700 51

1118 The synthesis of graphene sheets with controlled thickness and order using surfactant-assisted electrochemical processes. **2012**, 50, 142-152 179

1117 The theoretical possibility of a graphene sheet spontaneously scrolling round an iron nanowire. **2012**, 50, 566-576 38

1116 Thermally reduced graphite oxide as positive electrode in Vanadium Redox Flow Batteries. **2012**, 50, 828-834 115

1115 Spatially resolved electronic inhomogeneities of graphene due to subsurface charges. **2012**, 50, 932-938 23

1114 Synthesis of few-layer graphene over gold nanoclusters supported on MgO. **2012**, 50, 2252-2263 24

1113 A simple route towards high-concentration surfactant-free graphene dispersions. **2012**, 50, 3113-3116 42

1112 Preparation and characterization of graphene and Ni-decorated graphene using flower petals as the precursor material. **2012**, 50, 4123-4129 56

1111 Alginate/graphene oxide fibers with enhanced mechanical strength prepared by wet spinning. **2012**, 88, 1100-1108 167

1110	Triphenylamine-functionalized graphene decorated with Pt nanoparticles and its application in photocatalytic hydrogen production. <b>2012</b> , 37, 4880-4888	68
1109	Adsorption of methylene blue from aqueous solution by graphene. <b>2012</b> , 90, 197-203	530
1108	Interaction of reduced graphene oxide with free radicals and silver clusters. <b>2012</b> , 529, 54-58	15
1107	Barriers to motion and rotation of graphene layers based on measurements of shear mode frequencies. <b>2012</b> , 536, 82-86	36
1106	Self-assembly of osmium complexes on reduced graphene oxide: A case study toward electrochemical chiral sensing. <b>2012</b> , 16, 80-83	14
1105	Platinum nanoparticle-graphene hybrids synthesized by liquid phase pulsed laser ablation as cathode catalysts for Li-air batteries. <b>2012</b> , 20, 11-14	64
1104	Pulse electrodeposited Pd nanoclusters on graphene-based electrodes for proton exchange membrane fuel cells. <b>2012</b> , 64, 205-210	55
1103	Architecture of Fe <sub>3</sub> O <sub>4</sub> -graphene oxide nanocomposite and its application as a platform for amino acid biosensing. <b>2012</b> , 71, 58-65	69
1102	The triggering of apoptosis in macrophages by pristine graphene through the MAPK and TGF-beta signaling pathways. <b>2012</b> , 33, 402-11	391
1101	Decorated graphene sheets for label-free DNA impedance biosensing. <b>2012</b> , 33, 1097-106	116
1100	Ultrasensitive electrochemical immunosensor based on Au nanoparticles dotted carbon nanotube-graphene composite and functionalized mesoporous materials. <b>2012</b> , 33, 29-35	139
1099	Highly efficient preparation of ZnO nanorods decorated reduced graphene oxide nanocomposites. <b>2012</b> , 80, 9-12	91
1098	The fabrication of poly (acridine orange)/graphene modified electrode with electrolysis micelle disruption method for selective determination of uric acid. <b>2012</b> , 161, 131-136	45
1097	Facile method to prepare Pd/graphene-polyaniline nanocomposite and used as new electrode material for electrochemical sensing. <b>2012</b> , 353-354, 80-86	46
1096	A DFT study on group III and V combined hexagonal clusters as potential building motifs for inorganic nanomaterials. <b>2012</b> , 1007, 203-207	5
1095	Nitrogen doping and curvature effects on thermal conductivity of graphene: A non-equilibrium molecular dynamics study. <b>2012</b> , 152, 261-264	90
1094	Optimum HRTEM image contrast at 20 kV and 80 kV--exemplified by graphene. <b>2012</b> , 112, 39-46	40
1093	Statistical mechanics of two dimensional tilings. <b>2012</b> , 391, 2957-2963	5

1092	Stable forms of two-dimensional crystals and graphene. <b>2012</b> , 407, 1964-1968	4
1091	NMR of localized magnetic states in graphene. <b>2012</b> , 407, 1170-1174	8
1090	Scanning probe microscopy of graphene. <b>2012</b> , 44, 743-759	27
1089	Mechanical systems in the quantum regime. <b>2012</b> , 511, 273-335	331
1088	Chemical functionalization of graphene and its applications. <b>2012</b> , 57, 1061-1105	1351
1087	Reduction of graphene oxide by an in-situ photoelectrochemical method in a dye-sensitized solar cell assembly. <b>2012</b> , 7, 101	52
1086	Density functional theory calculations on graphene/SiO <sub>2</sub> (0001) interface. <b>2012</b> , 7, 158	13
1085	Properties and structural characterization of oxide starch/chitosan/graphene oxide biodegradable nanocomposites. <b>2012</b> , 123, 2933-2944	42
1084	Edge stability of boron nitride nanoribbons and its application in designing hybrid BNC structures. <b>2012</b> , 5, 62-72	58
1083	Few-layer nano-graphene structures with large surface areas synthesized on a multifunctional Fe:Mo:MgO catalyst system. <b>2012</b> , 47, 1910-1919	18
1082	Scale effects on buckling analysis of orthotropic nanoplates based on nonlocal two-variable refined plate theory. <b>2012</b> , 223, 395-413	70
1081	Recent progress and challenges in graphene nanoribbon synthesis. <b>2013</b> , 14, 47-54	180
1080	Direct synthesis of graphene on SiO <sub>2</sub> substrates by chemical vapor deposition. <b>2013</b> , 15, 1840	60
1079	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
1078	Amine-assisted solvothermal approach for the in situ synthesis of metal telluride/reduced graphene oxide. <b>2013</b> , 63, 157-164	7
1077	Nitrogen-doped graphene as low-cost counter electrode for high-efficiency dye-sensitized solar cells. <b>2013</b> , 92, 269-275	84
1076	Photoresponse mechanisms of ultraviolet photodetectors based on colloidal ZnO quantum dot-graphene nanocomposites. <b>2013</b> , 102, 021105	82
1075	One-step chemical reduction of graphene oxide with oligothiophene for improved electrocatalytic oxygen reduction reactions. <b>2013</b> , 61, 164-172	66

1074	Designed CVD growth of graphene via process engineering. <b>2013</b> , 46, 2263-74	152
1073	Nitroxide-Functionalized Graphene Oxide from Graphite Oxide. <b>2013</b> , 63, 376-376	40
1072	Folds and buckles at the nanoscale: experimental and theoretical investigation of the bending properties of graphene membranes. <b>2014</b> , 348, 205-36	
1071	Small Particles of Chemically-Reduced Graphene with Improved Electrochemical Capacity. <b>2013</b> , 117, 15496-15504	13
1070	Investigation of modified graphene for energy storage applications. <b>2013</b> , 5, 7881-5	29
1069	Applications of Nanomaterials in Sensors and Diagnostics. <b>2013</b> ,	24
1068	Thermoelectric properties of CuInTe <sub>2</sub> /graphene composites. <b>2013</b> , 15, 6648	51
1067	Tuning the layer-dependent doping effect of graphenes by C <sub>60</sub> . <b>2013</b> , 5, 8359-62	12
1066	New approaches to the development of hybrid nanocomposites: from structural materials to high-tech applications. <b>2013</b> , 82, 303-332	85
1065	Interaction between graphene layers and the mechanisms of graphite's superlubricity and self-retraction. <b>2013</b> , 5, 6736-41	42
1064	Cooperative catalysis by acidBase bifunctional graphene. <b>2013</b> , 3, 13655	31
1063	Direct production of highly conductive graphene with a low oxygen content by a microwave-assisted solvothermal method. <b>2013</b> , 232, 346-355	38
1062	Flexible Supercapacitors Development of Bendable Carbon Architectures. <b>2013</b> , 101-141	4
1061	RGO functionalised with polyschiff base: multi-chemical sensor for TNT with acidochromic and electrochromic properties. <b>2013</b> , 4, 4746	22
1060	Nonlocal mass nanosensors based on vibrating monolayer graphene sheets. <b>2013</b> , 188, 1319-1327	58
1059	Short-range potential scattering and its effect on graphene mobility. <b>2013</b> , 12, 76-84	17
1058	Epitaxial monolayer MoS <sub>2</sub> on mica with novel photoluminescence. <b>2013</b> , 13, 3870-7	456
1057	Electrochemical reduction synthesis of graphene/Nafion nanocomposite film and its performance on the detection of 8-hydroxy-2'-deoxyguanosine in the presence of uric acid. <b>2013</b> , 705, 37-43	35

1056	Aptamer-linked biosensor for thrombin based on AuNPs/thionine-graphene nanocomposite. <b>2013</b> , 138, 5365-70	44
1055	The interactions of nitrogen dioxide with graphene-stabilized Rh clusters: a DFT study. <b>2013</b> , 15, 15896-904	13
1054	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
1053	Coexisting massive and massless Dirac fermions in symmetry-broken bilayer graphene. <b>2013</b> , 12, 887-92	127
1052	Nanoscale morphology of graphene on different substrates. <b>2013</b> ,	
1051	Graphene/vanadium oxide nanotubes composite as electrode material for electrochemical capacitors. <b>2013</b> , 421, 77-82	22
1050	Numerical analysis of shape transition in graphene nanoribbons. <b>2013</b> , 75, 69-72	5
1049	Electron spin relaxation in graphene nanoribbon quantum dots. <b>2013</b> , 87,	17
1048	Oil spill cleanup using graphene. <b>2013</b> , 20, 3271-9	44
1047	Microscopic characterisation of suspended graphene grown by chemical vapour deposition. <b>2013</b> , 5, 9057-61	10
1046	H <sub>2</sub> on corrugated graphene: Diffusion Monte Carlo calculations. <b>2013</b> , 88,	10
1045	. <b>2013</b> , 101, 1670-1688	25
1044	Solvothermal synthesis of LiAl layered double hydroxides and their electrochemical performance. <b>2013</b> , 139, 395-402	25
1043	Two-dimensional melting under quenched disorder. <b>2013</b> , 111, 098301	76
1042	Superhydrophobic graphene-based materials: surface construction and functional applications. <b>2013</b> , 25, 5352-9	56
1041	A novel approach to electrically and thermally conductive elastomers using graphene. <b>2013</b> , 54, 3663-3670	112
1040	High-yield aqueous phase exfoliation of graphene for facile nanocomposite synthesis via emulsion polymerization. <b>2013</b> , 410, 43-51	244
1039	Highly selective and sensitive biosensor for cysteine detection based on in situ synthesis of gold nanoparticles/graphene nanocomposites. <b>2013</b> , 436, 815-822	23

1038	Electron diffraction measurement of the binding rigidity of free-standing graphene. <b>2013</b> , 39, 325-328	3
1037	Photoinduced charge transfer within polyaniline-encapsulated quantum dots decorated on graphene. <b>2013</b> , 5, 8105-10	31
1036	Continuous wafer-scale graphene on cubic-SiC(001). <b>2013</b> , 6, 562-570	27
1035	NiO nanoparticles deposited on graphene platelets as a cost-effective counter electrode in a dye sensitized solar cell. <b>2013</b> , 56, 56-63	50
1034	Ripple formation of free graphene ribbons driven by self-attractive forces. <b>2013</b> , 103, 043104	2
1033	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
1032	Low-temperature plasma synthesis of carbon nanotubes and graphene based materials and their fuel cell applications. <b>2013</b> , 42, 8821-34	136
1031	Orthorhombic C32: a novel superhard sp <sup>3</sup> carbon allotrope. <b>2013</b> , 15, 14120-5	52
1030	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
1029	Electric field-controlled rippling of graphene. <b>2013</b> , 5, 10996-1002	12
1028	Large-range control of the microstructures and properties of three-dimensional porous graphene. <b>2013</b> , 3, 2117	138
1027	Electronic structure and optical properties of a new type of semiconductor material: graphene monoxide. <b>2013</b> , 34, 083004	4
1026	Two-dimensional transparent hydrophobic coating based on liquid-phase exfoliated graphene fluoride. <b>2013</b> , 63, 149-156	46
1025	Effect of zigzag and armchair edges on the electronic transport in single-layer and bilayer graphene nanoribbons with defects. <b>2013</b> , 88,	30
1024	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
1023	Electronic properties of curved graphene nanoribbons. <b>2013</b> , 171, 7-14	9
1022	Ballistic versus diffusive transport in graphene. <b>2013</b> , 88,	14
1021	Slow gold adatom diffusion on graphene: effect of silicon dioxide and hexagonal boron nitride substrates. <b>2013</b> , 117, 4305-12	28



1020	Graphene for energy solutions and its industrialization. <b>2013</b> , 5, 10108-26	71
1019	Growth of small sized CeO <sub>2</sub> particles in the interlayers of expanded graphite for high-performance room temperature NO <sub>x</sub> gas sensors. <b>2013</b> , 1, 12742	80
1018	High peroxidase catalytic activity of exfoliated few-layer graphene. <b>2013</b> , 62, 51-60	40
1017	Preparation and Photoelectrochemical Properties of Supramolecular Assemblies of Nanoscale Carbon Material Composites. <b>2013</b> , 2, M3015-M3022	5
1016	Hierarchy of graphene wrinkles induced by thermal strain engineering. <b>2013</b> , 103, 251610	71
1015	Adhesion energy characterization of monolayer graphene by vibrational spectroscopy. <b>2013</b> , 114, 143502	8
1014	Battery-triggered ultrasensitive electrochemiluminescence detection on microfluidic paper-based immunodevice based on dual-signal amplification strategy. <b>2013</b> , 767, 66-74	60
1013	Lattice dynamics and disorder-induced contraction in functionalized graphene. <b>2013</b> , 113, 083524	40
1012	A novel glucose biosensor platform based on Ag@AuNPs modified graphene oxide nanocomposite and SERS application. <b>2013</b> , 406, 231-7	106
1011	An aptamer-based biosensing platform for highly sensitive detection of platelet-derived growth factor via enzyme-mediated direct electrochemistry. <b>2013</b> , 759, 61-5	42
1010	Crystal structure evolution of individual graphene islands during CVD growth on copper foil. <b>2013</b> , 25, 6744-51	45
1009	Structural Instability of Transferred Graphene Grown by Chemical Vapor Deposition against Heating. <b>2013</b> , 117, 22123-22130	21
1008	Stacking order dependent second harmonic generation and topological defects in h-BN bilayers. <b>2013</b> , 13, 5660-5	106
1007	Facile preparation and adjustable thermal property of stearic acid-graphene oxide composite as shape-stabilized phase change material. <b>2013</b> , 215-216, 819-826	128
1006	Electronic and Optical Properties of Silicon Carbide Nanostructures. <b>2013</b> , 139-159	1
1005	Nitrogen-self-doped graphene as a high capacity anode material for lithium-ion batteries. <b>2013</b> , 1, 14586	35
1004	Strain-engineering of graphene's electronic structure beyond continuum elasticity. <b>2013</b> , 166, 70-75	36
1003	Surface Corrugation Effects on the Water-Graphene Interfacial and Confinement Behavior. <b>2013</b> , 117, 23875-23886	17

1002	Inducing Aromaticity Patterns and Tuning the Electronic Transport of Zigzag Graphene Nanoribbons via Edge Design. <b>2013</b> , 117, 26371-26384	11
1001	Electronic structure of a hexagonal graphene flake subjected to triaxial stress. <b>2013</b> , 88,	39
1000	Novel behavior of monolayer quantum gases on graphene, graphane and fluorographene. <b>2013</b> , 25, 443001	14
999	Microwave plasma based single step method for free standing graphene synthesis at atmospheric conditions. <b>2013</b> , 103, 134101	58
998	Growth of the vertically aligned graphene@ amorphous GeOx sandwich nanoflakes and excellent Li storage properties. <b>2013</b> , 2, 1128-1136	80
997	Surface modification of graphene nanopores for protein translocation. <b>2013</b> , 24, 495102	34
996	Preparation of sulfonated poly(ether ether ketone) functionalized ternary graphene/AuNPs/chitosan nanocomposite for efficient glucose biosensor. <b>2013</b> , 48, 1724-1735	46
995	Sol-gel design strategy for ultradispersed TiO2 nanoparticles on graphene for high-performance lithium ion batteries. <b>2013</b> , 135, 18300-3	313
994	Thermally stable polypyrrole/Mn doped Fe(III) oxide nanocomposite sandwiched in graphene layer: Synthesis, characterization with tunable electrical conductivity. <b>2013</b> , 220, 107-116	19
993	Three-dimensional strutted graphene grown by substrate-free sugar blowing for high-power-density supercapacitors. <b>2013</b> , 4, 2905	514
992	Liquid Exfoliation of Layered Materials. <b>2013</b> , 340, 1226419-1226419	2604
991	A bifunctional approach for the preparation of graphene and ionic liquid-based hybrid gels. <b>2013</b> , 1, 43-48	31
990	Layer-by-layer spray deposition and unzipping of single-wall carbon nanotube-based thin film electrodes for electrochemical capacitors. <b>2013</b> , 61, 525-536	34
989	Introduction to graphene electronics – a new era of digital transistors and devices. <b>2013</b> , 54, 233-251	42
988	Development of an ultra-thin film comprised of a graphene membrane and carbon nanotube vein support. <b>2013</b> , 4, 2920	64
987	Improving the antifouling property of polysulfone ultrafiltration membrane by incorporation of isocyanate-treated graphene oxide. <b>2013</b> , 15, 9084-92	166
986	Ternary composite of hemin, gold nanoparticles and graphene for highly efficient decomposition of hydrogen peroxide. <b>2013</b> , 3, 3285	81
985	Graphene: Why buckling occurs?. <b>2013</b> , 102, 131905	11

984	Synthesis of a hydrophilic poly-l-lysine/graphene hybrid through multiple non-covalent interactions for biosensors. <b>2013</b> , 1, 1406-1413	50
983	Structure of Graphite Nanosheets Formed by Plasma Discharge in Liquid Ethanol. <b>2013</b> , 52, 278-290	7
982	A generalization of the Coulomb friction law: from graphene to macroscale. <b>2013</b> , 48, 1845-1851	23
981	Hierarchical fractal structure of perfect single-layer grapheme. <b>2013</b> , 8, 371-382	3
980	Graphene Properties and Characterization. <b>2013</b> , 39-82	5
979	Isolation of high quality graphene from Ru by solution phase intercalation. <b>2013</b> , 103, 121602	19
978	An overview of the engineered graphene nanostructures and nanocomposites. <b>2013</b> , 3, 22790	167
977	Harnessing the influence of reactive edges and defects of graphene substrates for achieving complete cycle of room-temperature molecular sensing. <b>2013</b> , 9, 3993-9	38
976	Rippling graphene at the nanoscale through dislocation addition. <b>2013</b> , 13, 4937-44	54
975	Synthesis and Characterization of Single and Few Layer Graphene for Field Effect Transistor. <b>2013</b> , 159-164	
974	Preparation, decoration and characterization of graphene sheets for methyl green adsorption. <b>2013</b> , 555, 193-200	92
973	Effect of tensile strain on thermal conductivity in monolayer graphene nanoribbons: a molecular dynamics study. <b>2013</b> , 13, 9388-95	20
972	Reduced graphene oxide with tunable C/O ratio and its activity towards vanadium redox pairs for an all vanadium redox flow battery. <b>2013</b> , 55, 313-320	137
971	Graphene-based semiconductor nanostructures. <b>2013</b> , 56, 105-122	39
970	Electron-beam engineering of single-walled carbon nanotubes from bilayer graphene. <b>2013</b> , 65, 80-86	21
969	Soliton-like thermophoresis of graphene wrinkles. <b>2013</b> , 5, 318-23	34
968	The facile synthesis of graphene nanoplatelet/lead styphnate composites and their depressed electrostatic hazards. <b>2013</b> , 1, 12710	39
967	Recent trends in silicon carbide (SiC) and graphene-based gas sensors. <b>2013</b> , 117-158	4

966	Preparation and Characterization of Graphene/RTV Silicone Rubber Composites. <b>2013</b> , 652-654, 11-14	4
965	Solitary waves in graphene-membrane. <b>2013</b> , 86, 1	1
964	Mechanics of self-folding of single-layer graphene. <b>2013</b> , 46, 055308	55
963	Porous silicene as a hydrogen purification membrane. <b>2013</b> , 15, 5753-7	110
962	Tuning aromaticity patterns and electronic properties of armchair graphene nanoribbons with chemical edge functionalisation. <b>2013</b> , 15, 12637-47	30
961	Tuning of gallery heights in a crystalline 2D carbon nitride network. <b>2013</b> , 1, 1102-1107	79
960	Investigation on friction performance of graphene. <b>2013</b> ,	1
959	Substrate surface corrugation effects on the electronic transport in graphene nanoribbons. <b>2013</b> , 103, 143506	15
958	Suspended single-layer MoS <sub>2</sub> devices. <b>2013</b> , 114, 164509	51
957	The Synthesis of Graphene Sheets Using Sodium Dodecyl Sulfate (SDS) as a Surfactant; An Electrochemical Process. <b>2013</b> , 829, 456-460	3
956	Graphene-Based Carbon Materials for Electrochemical Energy Storage. <b>2013</b> , 2013, 1-11	18
955	Enhanced reactivity of graphene wrinkles and their function as nanosized gas inlets for reactions under graphene. <b>2013</b> , 15, 19042-8	72
954	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
953	N-doped graphene analogue synthesized by pyrolysis of metal tetrapyridinoporphyrazine with high and stable catalytic activity for oxygen reduction. <b>2013</b> , 3, 9344	9
952	NMR-crystallographic study of two-dimensionally self-assembled cyclohexane-based low-molecular-mass organic compounds. <b>2013</b> , 15, 8784	15
951	Effects of graphene coating and charge injection on water adsorption of solid surfaces. <b>2013</b> , 5, 10414-9	10
950	TEM imaging of unstained DNA nanostructures using suspended graphene. <b>2013</b> , 9, 1414-1417	11
949	Sub-picometer structural information of graphene hidden in a 50 pm resolved image. <b>2013</b> , 5, 8874-8	

948	Phonon-interface scattering in multilayer graphene on an amorphous support. <b>2013</b> , 110, 16321-6	113
947	Shape-controlled synthesis of nanocarbons through direct conversion of carbon dioxide. <b>2013</b> , 3, 3534	63
946	Health and ecosystem risks of graphene. <b>2013</b> , 113, 3815-35	289
945	Multifunctionality and control of the crumpling and unfolding of large-area graphene. <b>2013</b> , 12, 321-5	641
944	A facile synthesis of platinum nanoparticle decorated graphene by one-step $\text{F}^-$ induced reduction for high rate supercapacitors. <b>2013</b> , 1, 321-328	59
943	The oxidation mechanism of highly ordered pyrolytic graphite in a nitric acid/sulfuric acid mixture. <b>2013</b> , 52, 493-498	46
942	Synthesis of graphene by low-temperature exfoliation and reduction of graphite oxide under ambient atmosphere. <b>2013</b> , 1, 50-53	105
941	Ionic liquid-assisted exfoliation of graphite oxide for simultaneous reduction and functionalization to graphenes with improved properties. <b>2013</b> , 1, 2663	51
940	Properties of Graphene. <b>2013</b> , 61-127	5
939	Characterisation Techniques. <b>2013</b> , 229-332	5
938	A bottom-up approach toward fabrication of ultrathin PbS sheets. <b>2013</b> , 13, 409-15	81
937	Methods for Obtaining Graphene. <b>2013</b> , 129-228	11
936	Graphene and its derivatives for cell biotechnology. <b>2013</b> , 138, 72-86	40
935	Graphene as a prototype crystalline membrane. <b>2013</b> , 46, 97-105	84
934	A strategy for mass production of self-assembled nitrogen-doped graphene as catalytic materials. <b>2013</b> , 1, 1401-1406	51
933	High-quality production of graphene by liquid-phase exfoliation of expanded graphite. <b>2013</b> , 137, 984-990	75
932	The Atomic Structure of Graphene and Its Few-layer Counterparts. <b>2013</b> , 5-59	1
931	A simple method for preparing graphene nano-sheets at low temperature. <b>2013</b> , 24, 317-323	42

930	One-step synthesis of Pt nanoparticles/reduced graphene oxide composite with enhanced electrochemical catalytic activity. <b>2013</b> , 56, 354-361	17
929	Facile and economical exfoliation of graphite for mass production of high-quality graphene sheets. <b>2013</b> , 1, 500-504	79
928	Exfoliation based technology of large scale manufacturing molybdenum disulphide graphene-like nanoparticle mixtures. <b>2013</b> , 13, 144-149	2
927	Sodium alginate/graphene oxide composite films with enhanced thermal and mechanical properties. <b>2013</b> , 94, 339-44	252
926	Synthesis of fullerene-, carbon nanotube-, and graphene-TiO <sub>2</sub> nanocomposite photocatalysts for selective oxidation: a comparative study. <b>2013</b> , 5, 1156-64	307
925	Synthesis of silver nanoparticles on reduced graphene oxide under microwave irradiation with starch as an ideal reductant and stabilizer. <b>2013</b> , 266, 188-193	61
924	Electronic and magnetic properties of triangular graphene nanoflakes embedded in fluorographene. <b>2013</b> , 572, 48-52	5
923	Cryomicroscopy of radiation sensitive specimens on unmodified graphene sheets: reduction of electron-optical effects of charging. <b>2013</b> , 183, 531-536	17
922	A comparative study of electrochemical performance of graphene sheets, expanded graphite and natural graphite as anode materials for lithium-ion batteries. <b>2013</b> , 107, 555-561	69
921	Ultrafast room-temperature reduction of graphene oxide to graphene with excellent dispersibility by lithium naphthalenide. <b>2013</b> , 63, 165-174	21
920	Morphologies developed by the drying of droplets containing dispersed and aggregated layered double hydroxide platelets. <b>2013</b> , 395, 11-7	16
919	Induction of cell death by graphene in Arabidopsis thaliana (Columbia ecotype) T87 cell suspensions. <b>2013</b> , 260, 1032-41	59
918	Synthesis of columnar carbon nanoscrolls by vibratory milling of expanded graphite. <b>2013</b> , 48, 2832-2835	6
917	A facile solvothermal method to produce ZnS quantum dots-decorated graphene nanosheets with superior photoactivity. <b>2013</b> , 24, 375601	48
916	The influence of wrinkling in reduced graphene oxide on their adsorption and catalytic properties. <b>2013</b> , 60, 157-168	69
915	Defect-guided wrinkling in graphene. <b>2013</b> , 77, 250-253	37
914	Incorporation of graphene into polyester/carbon nanofibers composites for better multi-stimuli responsive shape memory performances. <b>2013</b> , 64, 487-498	56
913	Synthesis and electrochemical properties of reduced graphene oxide via chemical reduction using thiourea as a reducing agent. <b>2013</b> , 113, 5-8	69

912	Electrochemical approaches to the production of graphene flakes and their potential applications. <b>2013</b> , 54, 1-21	253
911	Graphene synthesis: relationship to applications. <b>2013</b> , 5, 38-51	533
910	Performance enhancement of ZnO photocatalyst via synergic effect of surface oxygen defect and graphene hybridization. <b>2013</b> , 29, 3097-105	397
909	Graphene oxide-based antibacterial cotton fabrics. <b>2013</b> , 2, 1259-66	173
908	Electrochemical performance of carbide-derived carbon anodes for lithium-ion batteries. <b>2013</b> , 74, 1045-1055	17
907	The chemistry of two-dimensional layered transition metal dichalcogenide nanosheets. <b>2013</b> , 5, 263-75	6689
906	Graphene/fickel composites. <b>2013</b> , 273, 484-490	178
905	Tuning graphene morphology by substrate towards wrinkle-free devices: Experiment and simulation. <b>2013</b> , 113, 104301	46
904	Highly porous graphene on carbon cloth as advanced electrodes for flexible all-solid-state supercapacitors. <b>2013</b> , 2, 530-536	175
903	Covalently bonded interfaces for polymer/graphene composites. <b>2013</b> , 1, 4255	150
902	Size distribution-controlled preparation of graphene oxide nanosheets with different C/O ratios. <b>2013</b> , 139, 8-11	30
901	A low-temperature method to produce highly reduced graphene oxide. <b>2013</b> , 4, 1539	371
900	Electromechanical switching in graphene nanoribbons. <b>2013</b> , 51, 102-109	32
899	Tri-layer graphene films produced by mechanochemical exfoliation of graphite. <b>2013</b> , 57, 410-415	42
898	Effect of thermally reduced graphite oxide (TrGO) on the polymerization kinetics of poly(butylene terephthalate) (pCBT)/TrGO nanocomposites prepared by in situ ring-opening polymerization of cyclic butylene terephthalate. <b>2013</b> , 54, 1603-1611	31
897	Scaleable ultra-thin and high power density graphene electrochemical capacitor electrodes manufactured by aqueous exfoliation and spray deposition. <b>2013</b> , 52, 337-346	45
896	Critical parameters in exfoliating graphite into graphene. <b>2013</b> , 15, 4428-35	64
895	Graphene and its derivatives for the development of solar cells, photoelectrochemical, and photocatalytic applications. <b>2013</b> , 6, 1362	324

894	Dark-field transmission electron microscopy and the Debye-Waller factor of graphene. <b>2013</b> , 87, 045417	26
893	A hydrothermal anvil made of graphene nanobubbles on diamond. <b>2013</b> , 4, 1556	58
892	Ionic-liquid-assisted facile synthesis of silver nanoparticle-reduced graphene oxide hybrids by gamma irradiation. <b>2013</b> , 55, 245-252	79
891	Environmental applications using graphene composites: water remediation and gas adsorption. <b>2013</b> , 5, 3149-71	407
890	Supramolecular thiophene nanosheets. <b>2013</b> , 52, 4845-8	66
889	Phase diagram of 4He on graphene. <b>2013</b> , 87,	27
888	GIANT REDUCTION OF CHARGE CARRIER MOBILITY IN STRAINED GRAPHENE. <b>2013</b> , 27, 1350021	5
887	High concentration and stable few-layer graphene dispersions prepared by the exfoliation of graphite in different organic solvents. <b>2013</b> , 3, 9490	40
886	Vibration characteristics of wrinkled single-layered graphene sheets. <b>2013</b> , 50, 1812-1823	29
885	Rapid identification of stacking orientation in isotopically labeled chemical-vapor grown bilayer graphene by Raman spectroscopy. <b>2013</b> , 13, 1541-8	131
884	Robust graphene membranes in a silicon carbide frame. <b>2013</b> , 7, 4441-8	15
883	Adsorption of beryllium atoms and clusters both on graphene and in a bilayer of graphite investigated by DFT. <b>2013</b> , 25, 015002	11
882	Organic salt-assisted liquid-phase exfoliation of graphite to produce high-quality graphene. <b>2013</b> , 568-569, 198-201	96
881	Improved noncovalent functionalization and aqueous dispersibility of graphene via removing carbonaceous adsorbates. <b>2013</b> , 100, 207-211	10
880	Graphene-Based Chemical and Biosensors. <b>2013</b> , 103-141	9
879	Graphene wrinkling: formation, evolution and collapse. <b>2013</b> , 5, 4454-61	75
878	Melt compounding with graphene to develop functional, high-performance elastomers. <b>2013</b> , 24, 165601	106
877	Three-dimensional graphene-based aerogels prepared by a self-assembly process and its excellent catalytic and absorbing performance. <b>2013</b> , 1, 7612	162



876	Lattice-matched bimetallic CuPd-graphene nanocatalysts for facile conversion of biomass-derived polyols to chemicals. <b>2013</b> , 7, 1309-16	102
875	Single- and double-sided chemical functionalization of bilayer graphene. <b>2013</b> , 9, 631-9	47
874	Graphene-based electrodes for electrochemical energy storage. <b>2013</b> , 6, 1388	631
873	Molecular dynamics study on the bending rigidity of graphene nanoribbons. <b>2013</b> , 74, 107-113	27
872	A new rapid chemical route to prepare reduced graphene oxide using copper metal nanoparticles. <b>2013</b> , 24, 215604	26
871	Graphene oxide coupled AgBr nanosheets: an efficient dual-functional visible-light-responsive nanophotocatalyst with enhanced performance. <b>2013</b> , 1, 2827	32
870	Thermal properties of fluorinated graphene. <b>2013</b> , 87,	75
869	The Restorative Effect of Fluoropolymer Coating on Electrical Characteristics of Graphene Field-Effect Transistors. <b>2013</b> , 34, 559-561	13
868	Nanowire-graphene hybrids for lithium-ion-battery. <b>2013</b> ,	
867	Paper-based transparent flexible thin film supercapacitors. <b>2013</b> , 5, 5307-11	92
866	Large-scale production of nanographene sheets with a controlled mesoporous architecture as high-performance electrochemical electrode materials. <b>2013</b> , 6, 1084-90	46
865	Effect of surface morphology on friction of graphene on various substrates. <b>2013</b> , 5, 3063-9	124
864	Self-assembly of nanoparticles adsorbed on fluid and elastic membranes. <b>2013</b> , 9, 6677	52
863	Carbon nanofibers with radially grown graphene sheets derived from electrospinning for aqueous supercapacitors with high working voltage and energy density. <b>2013</b> , 5, 4902-9	92
862	Atomic resolution imaging of graphene by transmission electron microscopy. <b>2013</b> , 5, 4079-93	109
861	A novel graphene-DNA biosensor for selective detection of mercury ions. <b>2013</b> , 48, 180-7	123
860	Organic functionalization of graphene in dispersions. <b>2013</b> , 46, 138-48	198
859	Mass Detection Using a Graphene-Based Nanomechanical Resonator. <b>2013</b> , 52, 025101	28

858	Graphene-Orange II composite nanosheets with electroactive functions as label-free aptasensing platform for "signal-on" detection of protein. <b>2013</b> , 45, 95-101	34
857	Direct exfoliation of graphite to graphene in aqueous media with diazaperopyrenium dications. <b>2013</b> , 25, 2740-5	77
856	Adhesive contact between a graphene sheet and a nano-scale corrugated surface. <b>2013</b> , 46, 205303	8
855	Two-Dimensional Nanocrystals: Structure, Properties and Applications. <b>2013</b> , 38, 1289-1304	6
854	Probing from both sides: reshaping the graphene landscape via face-to-face dual-probe microscopy. <b>2013</b> , 13, 1934-40	27
853	Label-free electrochemical impedance genosensor based on 1-aminopyrene/graphene hybrids. <b>2013</b> , 5, 5833-40	40
852	The SERS study of graphene deposited by gold nanoparticles with 785 nm excitation. <b>2013</b> , 556, 146-150	51
851	Controllable atomic scale patterning of freestanding monolayer graphene at elevated temperature. <b>2013</b> , 7, 1566-72	90
850	Mechanical stabilities and properties of graphene-like aluminum nitride predicted from first-principles calculations. <b>2013</b> , 3, 7083	53
849	Free radical reactions in two dimensions: a case study on photochlorination of graphene. <b>2013</b> , 9, 1388-96	15
848	Synthesis and photoluminescence properties of polybenzoxazoles containing perylenebisimide functionalized graphene nanosheets via stacking interactions. <b>2013</b> , 37, 2500	11
847	The physics of wrinkling in graphene membranes under local tension. <b>2013</b> , 15, 2764-73	35
846	Synchronous chemical vapor deposition of large-area hybrid graphene-carbon nanotube architectures. <b>2013</b> , 28, 958-968	14
845	Improved beam theory for multilayer graphene nanoribbons with interlayer shear effect. <b>2013</b> , 377, 1297-1300	21
844	Label-Free Analysis of Thrombin or Hg <sup>2+</sup> Ions by Nucleic Acid-Functionalized Graphene Oxide Matrices Assembled on Field-Effect Transistors. <b>2013</b> , 25, 851-856	28
843	Well-graphitized graphene as photoinduced charge transport channel for improving the photocatalytic activity of AgBr. <b>2013</b> , 37, 1797	4
842	Mobile metal adatoms on single layer, bilayer, and trilayer graphene: An ab initio DFT study with van der Waals corrections correlated with electron microscopy data. <b>2013</b> , 87,	68
841	Low-temperature synthesis of stable nanoTiO <sub>2</sub> /GO composite colloids and their application in photoelectric films. <b>2013</b> , 3, 8559	7

840	Electronic and optical properties of graphene and graphitic ZnO nanocomposite structures. <b>2013</b> , 138, 124706	82
839	Nonlinear softening and hardening nonlocal bending stiffness of an initially curved monolayer graphene. <b>2013</b> , 56, 123-131	17
838	Self-regulating homogenous growth of high-quality graphene on Co-Cu composite substrate for layer control. <b>2013</b> , 5, 5847-53	23
837	One-step synthesis of graphene via catalyst-free gas-phase hydrocarbon detonation. <b>2013</b> , 24, 245602	38
836	One-step reduction, characterization and magnetic behaviour of exfoliated graphene oxide. <b>2013</b> , 31, 59-64	6
835	Adhesion and friction control localized folding in supported graphene. <b>2013</b> , 113, 193501	54
834	A Generic Synthetic Approach to Large-Scale Pristine-Graphene/Metal-Nanoparticles Hybrids. <b>2013</b> , 23, 5771-5777	40
833	Electronic and magnetic properties of adsorbed H <sub>2</sub> on graphene with atomic defects: Ab initio study. <b>2013</b> , 52, 127-135	9
832	Spontaneous ripple formation in MoS <sub>2</sub> monolayers: electronic structure and transport effects. <b>2013</b> , 25, 5473-5	83
831	Electrical Properties and Electromagnetic Interference Shielding Response of Electrically Conducting Thermosetting Nanocomposites. <b>2013</b> , 211-237	31
830	Polyaniline modified graphene and carbon nanotube composite electrode for asymmetric supercapacitors of high energy density. <b>2013</b> , 241, 423-428	152
829	Synthesis of boron-doped graphene monolayers using the sole solid feedstock by chemical vapor deposition. <b>2013</b> , 9, 1316-20	157
828	One-pot hydrothermal synthesis of TiO <sub>2</sub> /graphene nanocomposites for enhanced visible light photocatalysis and photovoltaics. <b>2013</b> , 3, 12933	34
827	A simple one-pot synthesis of graphene nanosheet/SnO nanoparticle hybrid nanocomposites and their application for selective and sensitive electrochemical detection of dopamine. <b>2013</b> , 1, 1804-1811	72
826	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
825	Electronic and Field Emission Properties of Wrinkled Graphene. <b>2013</b> , 117, 692-696	61
824	Geometric and Electronic Structures as well as Thermodynamic Stability of Hexyl-Modified Silicon Nanosheet. <b>2013</b> , 117, 13283-13288	15
823	Solvated graphenes: an emerging class of functional soft materials. <b>2013</b> , 25, 13-30	192

822	Structural and electronic properties of substitutionally doped armchair silicene nanoribbons. <b>2013</b> , 425, 66-71	33
821	Two-phase hydrothermal synthesis of TiO <sub>2</sub> /graphene hybrids with improved photocatalytic activity. <b>2013</b> , 572, 199-204	54
820	Ultrasensitive electrochemiluminescence detection of lengthy DNA molecules based on dual signal amplification. <b>2013</b> , 138, 3463-9	11
819	Preparation and Characterization of Insensitive HMX/Graphene Oxide Composites. <b>2013</b> , 38, 798-804	51
818	deposition of hydroxyapatite on graphene nanosheets. <b>2013</b> , 48, 175-179	85
817	Impurity levels in the electronic spectra of graphene. <b>2013</b> , 53, 55-62	3
816	Buckling induced delamination of graphene composites through hybrid molecular modeling. <b>2013</b> , 102, 031902	14
815	Synthesis of amorphous FeOOH/reduced graphene oxide composite by infrared irradiation and its superior lithium storage performance. <b>2013</b> , 5, 10145-50	45
814	Electrical transport and breakdown in graphene multilayers loaded with electron beam induced deposited platinum. <b>2013</b> , 5, 3424-30	6
813	Self-assembly of graphene oxide with a silyl-appended spiropyran dye for rapid and sensitive colorimetric detection of fluoride ions. <b>2013</b> , 85, 11456-63	73
812	A facile method for the large-scale continuous synthesis of graphene sheets using a novel catalyst. <b>2013</b> , 3, 3037	84
811	Thermal transport in lattice-constrained 2D hybrid graphene heterostructures. <b>2013</b> , 25, 445007	11
810	Benzene carboxylic acid derivatized graphene oxide nanosheets on natural zeolites as effective adsorbents for cationic dye removal. <b>2013</b> , 260, 330-8	92
809	Uncovering the dominant scattering mechanism in graphene system. <b>2013</b> , 377, 1649-1654	4
808	Chemical functionalization of graphene oxide toward the tailoring of the interface in polymer composites. <b>2013</b> , 77, 87-94	128
807	Solvothermal synthesis of graphene/CdS nanocomposites for highly efficient visible-light photocatalyst. <b>2013</b> , 551, 327-332	67
806	Laser applications in nanotechnology: nanofabrication using laser ablation and laser nanolithography. <b>2013</b> , 56, 643-682	58
805	Ethylene glycol assisted hydrothermal synthesis of graphene sheets supporting CdS nanospheres for quenched photoluminescence. <b>2013</b> , 16, 429-434	12

804	Low loading platinum nanoparticles on reduced graphene oxide-supported tungsten carbide crystallites as a highly active electrocatalyst for methanol oxidation. <b>2013</b> , 114, 133-141	37
803	Prussian blue nanocubes on nitrobenzene-functionalized reduced graphene oxide and its application for H <sub>2</sub> O <sub>2</sub> biosensing. <b>2013</b> , 114, 223-232	48
802	Biomimetic choline-like graphene oxide composites for neurite sprouting and outgrowth. <b>2013</b> , 5, 13188-97	44
801	Metallic-nanowire-induced spontaneous scrolling of graphene nanostructures. <b>2013</b> , 102, 26001	1
800	Noncovalent Method for Improving the Interaction between Reduced Graphene Oxide and Poly( $\beta$ -caprolactone). <b>2013</b> , 52, 15824-15828	21
799	Charge Doping of Large-Area Graphene by Gold-Alloy Nanoparticles. <b>2013</b> , 117, 26804-26810	22
798	Origin of anomalous strain effects on the molecular adsorption on boron-doped graphene. <b>2013</b> , 139, 044709	6
797	Graphene based nanomaterials for strain sensor application—review. <b>2020</b> , 8, 103743	63
796	Half-meshed and fully-meshed suspended graphene for transport gap engineering. <b>2020</b> ,	0
795	Biocide mechanism of highly efficient and stable antimicrobial surfaces based on zinc oxide-reduced graphene oxide photocatalytic coatings. <b>2020</b> , 8, 8294-8304	14
794	Static and dynamic behavior of magnetic particles at fluid interfaces. <b>2020</b> , 284, 102233	11
793	RETRACTED: Construction of an excellent eco-friendly anti-corrosion system based on epoxy@Sm <sub>2</sub> O <sub>3</sub> -polydopamine biopolymer on the mild steel surface. <b>2020</b> , 113, 332-343	1
792	Ripples in Graphene: A Variational Approach. <b>2020</b> , 379, 915-954	1
791	High performance electrochemical L-cysteine sensor based on hierarchical 3D straw-bundle-like Mn-La oxides/reduced graphene oxide composite. <b>2020</b> , 877, 114654	7
790	Optoelectronic Properties of Graphene-Based van der Waals Hybrids. <b>2020</b> ,	0
789	Recent Developments in Graphene and Graphene Oxide: Properties, Synthesis, and Modifications: A Review. <b>2020</b> , 5, 10200-10219	34
788	The Application of Graphene Derivatives in Perovskite Solar Cells. <b>2020</b> , 4, 2000507	16
787	Machine Learning Potential for Hexagonal Boron Nitride Applied to Thermally and Mechanically Induced Rippling. <b>2020</b> , 124, 22278-22290	8

786	Flexoinduced ferroelectricity in low-dimensional transition metal dichalcogenides. <b>2020</b> , 102,	5
785	Photo- and Nanoelectronics Based on Two-Dimensional Materials. Part I. Two-Dimensional Materials: Properties and Synthesis. <b>2020</b> , 65, 1062-1104	4
784	3D Graphene Materials: From Understanding to Design and Synthesis Control. <b>2020</b> , 120, 10336-10453	117
783	Adsorption-induced clustering of CO on graphene. <b>2020</b> , 22, 21031-21041	4
782	Improved High-Yield PMMA/Graphene Pressure Sensor and Sealed Gas Effect Analysis. <b>2020</b> , 11,	0
781	Displacement of carbon atoms in few-layer graphene. <b>2020</b> , 128, 085902	2
780	Disentangling the liquid phase exfoliation of two-dimensional materials: an "" perspective. <b>2020</b> , 22, 22157-22179	8
779	Direct imaging, three-dimensional interaction spectroscopy, and friction anisotropy of atomic-scale ripples on MoS <sub>2</sub> . <b>2020</b> , 4,	5
778	Thermodynamically Metal Atom Trapping in Van der Waals Layers Enabling Multifunctional 3D Carbon Network. <b>2020</b> , 30, 2002626	8
777	Rippling of two-dimensional materials by line defects. <b>2020</b> , 102,	3
776	Characterization and Modification of Graphene-Based Interfacial Mechanical Behavior. <b>2020</b> ,	
775	Graphene and Graphene-Integrated Materials for Energy Device Applications. <b>2020</b> , 285-327	0
774	. <b>2020</b> ,	0
773	Carbon Nanomaterials for Electro-Active Structures: A Review. <b>2020</b> , 12,	8
772	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. <b>2020</b> , 11, 6373	20
771	Out-of-plane corrugations in graphene based van der Waals heterostructures. <b>2020</b> , 102,	1
770	Systematic theoretical study of carbon nanotubes rolled from a two-dimensional tetrahex-carbon nanosheet. <b>2020</b> , 102,	2
769	Freestanding graphene writing on a silicon carbide wafer. <b>2020</b> , 20, 1435-1440	

768	From the research state of the thermal properties of graphene reinforced ceramics to the future of computer simulation. <b>2020</b> , 46, 18428-18445	10
767	ZnO conjugated graphene: An efficient sunlight driven photocatalyst for degradation of organic dyes. <b>2020</b> , 129, 110911	28
766	Synthesis of Titanium Dioxide (TiO <sub>2</sub> )/Reduced Graphene Oxide (rGO) thin film composite by spray pyrolysis technique and its physical properties. <b>2020</b> , 116, 105140	12
765	Electrochemical sensor using poly-(l-cysteine) functionalized CuO nanoneedles/N-doped reduced graphene oxide for detection of lead ions.. <b>2020</b> , 10, 18526-18532	12
764	In Situ X-ray Diffraction Study of GaN Nucleation on Transferred Graphene. <b>2020</b> , 20, 4013-4019	3
763	A Chronicle Review of Nonsilicon (Sn, Sb, Ge)-Based Lithium/Sodium-Ion Battery Alloying Anodes. <b>2020</b> , 4, 2000218	99
762	Large Suspended Monolayer and Bilayer Graphene Membranes with Diameter up to 750 $\mu\text{m}$ . <b>2020</b> , 10, 6426	13
761	Remote nongenetic optical modulation of neuronal activity using fuzzy graphene. <b>2020</b> , 117, 13339-13349	19
760	Synthesis, properties and potential applications of hydrogenated graphene. <b>2020</b> , 397, 125408	14
759	Effects of grain dimensions and edge states on the thermal conductivity of graphene ribbons. <b>2020</b> , 108, 107919	2
758	Strain tunable electrical and optical properties of two dimensional tetragonal MgX (X=S, Se) monolayer semiconductors. <b>2020</b> , 144, 106570	4
757	The enhanced thermal transport properties of a heat spreader assembled using non-covalent functionalized graphene. <b>2020</b> , 44, 9337-9343	6
756	Anharmonicities in the temperature-dependent bending rigidity of BC <sub>3</sub> monolayer. <b>2020</b> , 146, 109574	1
755	Convergent beam electron diffraction of multilayer Van der Waals structures. <b>2020</b> , 212, 112976	5
754	The electronic structure of ideal graphene. <b>2020</b> , 1-23	
753	Growth of Multilayer Graphene with a Built-in Vertical Electric Field. <b>2020</b> , 32, 5142-5152	3
752	Interfacial Thermal Resistance Mechanism for the Polyaniline (C <sub>3</sub> N) <sub>4</sub> Graphene Heterostructure. <b>2020</b> , 124, 14316-14326	17
751	Efficiency improvement in non-enzymatic H <sub>2</sub> O <sub>2</sub> detection induced by the simultaneous synthesis of Au and Ag nanoparticles in an RGO/Au/Fe <sub>3</sub> O <sub>4</sub> /Ag nanocomposite. <b>2020</b> , 44, 9037-9045	11

750 Preface to the second edition. **2020**, ix-x

749 Preface to the first edition. **2020**, xi-xiv

748 Electron states in a magnetic field. **2020**, 24-62

o

747 Quantum transport via evanescent waves. **2020**, 63-76

746 The Klein paradox and chiral tunneling. **2020**, 77-107

745 Edges, nanoribbons, and quantum dots. **2020**, 108-140

744 Point defects. **2020**, 141-167

743 Optics and response functions. **2020**, 168-192

742 The Coulomb problem. **2020**, 193-212

741 Crystal lattice dynamics, structure, and thermodynamics. **2020**, 213-256

740 Gauge fields and strain engineering. **2020**, 257-278

739 Scattering mechanisms and transport properties. **2020**, 279-325

738 Spin effects and magnetism. **2020**, 326-350

737 Graphene on hexagonal boron nitride. **2020**, 351-378

736 Twisted bilayer graphene. **2020**, 379-388

735 Many-body effects in graphene. **2020**, 389-400

734 References. **2020**, 401-420

733 Index. **2020**, 421-426



732	Wrinkle-induced highly conductive channels in graphene on SiO/Si substrates. <b>2020</b> , 12, 12038-12045	3
731	Study of graphene device electronic properties with horizontal and vertical double vacancy defects. <b>2020</b> , 28, 886-890	2
730	Simulation of Corrugated Graphene Structure by Microlevel Cellular Models and Gaussian Random Fields. <b>2020</b> ,	1
729	Self-rolled TiO <sub>2</sub> microscroll/graphene composite for electrochemical dopamine sensing. <b>2020</b> , 30, 337-342	8
728	Variational model for a rippled graphene sheet.. <b>2020</b> , 10, 16016-16026	6
727	Ultra-fast and ultra-long-life Li ion batteries with 3D surface-porous graphene anodes synthesized from CO <sub>2</sub> . <b>2020</b> , 8, 13385-13392	14
726	A novel, portable Escherichia coli bacteria sensor using graphene as sensing material. <b>2020</b> , 254, 123459	4
725	Moiré Pattern-Tuned Electronic Structures of van der Waals Heterostructures. <b>2020</b> , 30, 2002672	11
724	Two-dimensional nanoparticles for the delivery of anticancer drugs and cancer therapy. <b>2020</b> , 16, 151-199	4
723	An Anomalous Magneto-Optic Effect in Epitaxial Indium Selenide Layers. <b>2020</b> , 20, 5330-5338	4
722	Ripples, Wrinkles, and Crumples in Folded Graphene. <b>2020</b> , 76, 985-990	1
721	Functionalizing TiO with graphene oxide for enhancing photocatalytic degradation of methylene blue (MB) in contaminated wastewater. <b>2020</b> , 270, 110871	60
720	Large-scale correction and thermal properties of holographic dual background of an adaptive graphene model. <b>2020</b> , 17, 2050135	
719	Numerical study of the rippling instability driven by electron-phonon coupling in graphene. <b>2020</b> , 101,	3
718	A Novel Fabrication Method of Graphene Wrinkle-Induced Superhydrophobic Surface for Flexible Micro/Nano Sensors. <b>2020</b> ,	
717	Introduction. <b>2020</b> , 1-8	
716	Preparation of graphene. <b>2020</b> , 39-171	0
715	A Tetrakis(terpyridine) Ligand-Based Cobalt(II) Complex Nanosheet as a Stable Dual-Ion Battery Cathode Material. <b>2020</b> , 16, e1905204	15

714	Graphene-based hybrid materials for advanced batteries. <b>2020</b> , 73-95	
713	Multidimensional graphene structures and beyond: Unique properties, syntheses and applications. <b>2020</b> , 113, 100665	37
712	Atomic Simulation of Nanoindentation on the Regular Wrinkled Graphene Sheet. <b>2020</b> , 13,	0
711	Tunable water-soluble carbon nitride by alkali-metal cations modification: Enhanced ROS-evolving and adsorption band for photodynamic therapy. <b>2020</b> , 269, 118848	23
710	Sensing of volatile organic compounds on two-dimensional nitrogenated holey graphene, graphdiyne, and their heterostructure. <b>2020</b> , 163, 213-223	38
709	Correlating the three-dimensional atomic defects and electronic properties of two-dimensional transition metal dichalcogenides. <b>2020</b> , 19, 867-873	58
708	Graphene-based nanomaterials for healthcare applications. <b>2020</b> , 45-81	6
707	Graphdiyne for significant thermal conductivity enhancement at ultralow mass fraction in polymer composites. <b>2020</b> , 7, 035007	10
706	Record Complexity in the Polycatenation of Three Porous Hydrogen-Bonded Organic Frameworks with Stepwise Adsorption Behaviors. <b>2020</b> , 142, 7218-7224	47
705	Auxetic Tetrahex Carbon with Ultrahigh Strength and a Direct Band Gap. <b>2020</b> , 13,	13
704	Metal and Metal Oxide Electrocatalysts for Redox Flow Batteries. <b>2020</b> , 30, 1910564	30
703	Low Voltage Graphene-Based Amplitude Modulator for High Efficiency Terahertz Modulation. <b>2020</b> , 10,	6
702	The Chemistry and Promising Applications of Graphene and Porous Graphene Materials. <b>2020</b> , 30, 1909035	79
701	Interface of Electrogenic Bacteria and Reduced Graphene Oxide: Energetics and Electron Transport. <b>2020</b> , 2, 992-999	2
700	The Effect of Ion Irradiation Density on the Defect of Graphene: A Molecular Dynamics Study. <b>2020</b> , 10, 158	1
699	A high-quality aqueous graphene conductive slurry applied in anode of lithium-ion batteries. <b>2020</b> , 830, 154575	9
698	Intelligent Identification of MoS Nanostructures with Hyperspectral Imaging by 3D-CNN. <b>2020</b> , 10,	7
697	Mechanical properties of two-dimensional materials: atomistic modeling and future directions. <b>2020</b> , 9-35	3

696	Delamination-Free Functional Graphene Surface by Multiscale, Conformal Wrinkling. <b>2020</b> , 30, 2003273	15
695	Chemical and Temperature Sensors Based on Functionalized Reduced Graphene Oxide. <b>2020</b> , 8, 43	2
694	Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. <b>2020</b> , 215, 113019	8
693	Gas physisorption measurements as a quality control tool for the properties of graphene/graphite powders. <b>2020</b> , 167, 585-595	9
692	Hierarchical BiOCO wrapped with modified graphene oxide for adsorption-enhanced photocatalytic inactivation of antibiotic resistant bacteria and resistance genes. <b>2020</b> , 184, 116157	26
691	Designed synthesis of WC-based nanocomposites as low-cost, efficient and stable electrocatalysts for the hydrogen evolution reaction. <b>2020</b> , 22, 4580-4590	9
690	Interaction of Nucleic Acid Bases (NABs) with Graphene (GR) and Boron Nitride Graphene (BNG). <b>2020</b> , 1222, 128889	2
689	Study on the tribological properties of graphene oxide composite films by self-assembly. <b>2020</b> , 151, 106533	6
688	Catalyst-free solvothermal synthesis of ultrapure elemental N- and B-doped graphene for energy storage application. <b>2020</b> , 353, 115371	6
687	DFT/TDDFT Investigation of Electronic, Magnetic, and Optical Properties of Graphene Containing Different Values of Se Impurity. <b>2020</b> , 62, 1262-1270	
686	Electronic properties of two-dimensional materials. <b>2020</b> , 77-109	3
685	Engineered superhydrophilicity and superhydrophobicity of graphene-nanoplatelet coatings via thermal treatment. <b>2020</b> , 364, 88-97	17
684	Low energy nano diffraction (LEND) - A versatile diffraction technique in SEM. <b>2020</b> , 213, 112956	10
683	Recent advances in black phosphorus/carbon hybrid composites: from improved stability to applications. <b>2020</b> , 8, 4647-4676	26
682	Green Synthesis of Graphene from Graphite in Molten Salt Medium. <b>2020</b> , 2020, 1-12	15
681	Heterogeneous deformation of two-dimensional materials for emerging functionalities. <b>2020</b> , 35, 1369-1385	5
680	Influence of the presence of cations on the water and salt dynamics inside layered graphene oxide (GO) membranes. <b>2020</b> , 12, 7273-7283	7
679	Review of Polarization Optical Devices Based on Graphene Materials. <b>2020</b> , 21,	22

678	Effect of graphene on tribological properties of Ni based composite coatings prepared by oxidation reduction method. <b>2020</b> , 9, 3796-3804	6
677	Controllable growth of two-dimensional iron carbide in steels under accumulation deformation. <b>2020</b> , 132, 102794	1
676	A density functional theory study on the carbon defect in a graphene nano-flake surface promoting hydrogenation. <b>2020</b> , 59, 025508	0
675	Efficient exfoliation of UV-curable, high-quality graphene from graphite in common low-boiling-point organic solvents with a designer hyperbranched polyethylene copolymer and their applications in electrothermal heaters. <b>2020</b> , 569, 114-127	6
674	WITHDRAWN: Synthesis & characterization of graphene oxide, reduced graphene oxide and silica nanoparticles. <b>2020</b> ,	
673	Conductance of Buckled = 5 Armchair Graphene Nanoribbons. <b>2020</b> , 11, 1378-1383	1
672	Triple-synergistic 2D material-based dual-delivery antibiotic platform. <b>2020</b> , 12,	26
671	Self-assembled electrodes based on polyaniline grafted with reduced graphene oxide and polystyrene sulfonate. <b>2020</b> , 24, 1857-1866	5
670	Undulated silicene and germanene freestanding layers: why not?. <b>2020</b> , 32, 195503	4
669	Ultrafast Electrochemical Synthesis of Defect-Free In Se Flakes for Large-Area Optoelectronics. <b>2020</b> , 32, e1907244	38
668	Critical Stable Length in Wrinkles of Two-Dimensional Materials. <b>2020</b> , 14, 2137-2144	19
667	State of the Art in Alcohol Sensing with 2D Materials. <b>2020</b> , 12, 33	29
666	Large-area single-crystal AB-bilayer and ABA-trilayer graphene grown on a Cu/Ni(111) foil. <b>2020</b> , 15, 289-295	76
665	Carrier statistics of highly doped armchair graphene nanoribbons with edge disorder. <b>2020</b> , 139, 106404	1
664	Antistatic and microwave shielding performance of polythiophene-graphene grafted 3-dimensional carbon fibre composite. <b>2020</b> , 106, 107871	24
663	The effect of surface wrinkles on the properties of water in graphene slit pores. <b>2020</b> , 46, 604-615	0
662	Functionalized graphene and targeted applications [Highlighting the road from chemistry to applications. <b>2020</b> , 114, 100683	38
661	Analogous Diamondene Nanotube Structure Prediction Based on Molecular Dynamics and First-Principle Calculations. <b>2020</b> , 10,	1

660	Conductance Tunable Suspended Graphene Nanomesh by Helium Ion Beam Milling. <b>2020</b> , 11,	2
659	Regulation of 2D Graphene Materials for Electrocatalysis. <b>2020</b> , 15, 2271-2281	8
658	One-step compressive growth of two-dimensional iron carbide and its bond evolution analysis. <b>2020</b> , 143, 109419	1
657	Structural stability of single-layer PdSe with pentagonal puckered morphology and its nanotubes. <b>2020</b> , 22, 8289-8295	9
656	Towards Molecular Simulations that are Transparent, Reproducible, Usable By Others, and Extensible (TRUE). <b>2020</b> , 118,	12
655	Effect of Different Reduction Methods on the Structure of Graphene Oxide. <b>2020</b> , 729, 012083	
654	Preparation of Few-Layered Wide Bandgap MoS <sub>2</sub> with Nanometer Lateral Dimensions by Applying Laser Irradiation. <b>2020</b> , 10, 164	14
653	Continuous Zachariasen carbon monolayers under tensile deformation: Insights from molecular dynamics simulations. <b>2020</b> , 38, 100744	0
652	Influence of edge passivation on the transport properties of the zigzag phosphorene nanoribbons. <b>2020</b> , 384, 126486	2
651	Moiré patterns arising from bilayer graphone/graphene superlattice. <b>2020</b> , 13, 1060-1064	5
650	Synthesis of a pyrene-functionalized hyperbranched polyethylene ternary copolymer for efficient graphite exfoliation in chloroform and formation of ethylene-vinyl acetate/graphene nanocomposites. <b>2020</b> , 137, 49320	2
649	Enhanced carrier mobility in anisotropic two-dimensional tetrahex-carbon through strain engineering. <b>2020</b> , 165, 37-44	10
648	Atomic Carbon Spraying: Direct Growth of Graphene on Customized 3D Surfaces of Ultrafast Optical Devices. <b>2020</b> , 8, 1902091	3
647	The effect of graphene oxide on signalling of xenobiotic receptors involved in biotransformation. <b>2020</b> , 253, 126753	3
646	Nanostructured graphene materials utilization in fuel cells and batteries: A review. <b>2020</b> , 29, 101386	22
645	Towards large-scale graphene transfer. <b>2020</b> , 12, 10890-10911	24
644	Mobility Enhancement in Graphene by in situ Reduction of Random Strain Fluctuations. <b>2020</b> , 124, 157701	8
643	Electrospinning of polyurethane/graphene oxide for skin wound dressing and its in vitro characterization. <b>2020</b> , 35, 135-145	14

642	Graphene oxide nanosheets for treatment of mine-drainage contaminated water: The effect of phosphate functionalisation on U(VI) removal. <b>2021</b> , 38, 647-651	1
641	Photocatalytic applications of graphene based semiconductor composites: A review. <b>2021</b> , 35, 164-169	1
640	Sensitivity analysis of a Graphene Field-Effect Transistors by means of Design of Experiments. <b>2021</b> , 183, 187-197	8
639	Facile and green synthesis of reduced graphene oxide for remediation of Hg(II)-contaminated water. <b>2021</b> , 38, 737-742	8
638	Correlating the gradient nitrogen doping and electromagnetic wave absorption of graphene at gigahertz. <b>2021</b> , 854, 157113	12
637	The impact of graphene oxide on androgen receptor signalling in prostate cancer cells. <b>2021</b> , 269, 128759	1
636	The electron-phonon coupling constant for single-layer graphene on metal substrates determined from He atom scattering. <b>2021</b> , 23, 7575-7585	8
635	Prediction of a new 2D B2CO monolayer from density functional theory. <b>2021</b> , 186, 109975	1
634	Self-assembly and ion transport behaviour of liquid-crystalline graphene oxide multilayer sandwich nanopapers. <b>2021</b> , 48, 368-377	1
633	Mixed-acid intercalation for synthesis of a high conductivity electrochemically exfoliated graphene. <b>2021</b> , 171, 130-141	4
632	Strategies for reduction of graphene oxide – A comprehensive review. <b>2021</b> , 405, 127018	72
631	Investigation of the usability of nitric acid electrolyte in graphene production by electrochemical method. <b>2021</b> , 29, 175-182	0
630	Synthesis of large-area graphene films on rolled-up Cu foils by a Breathing method. <b>2021</b> , 405, 127014	8
629	Confinement in two-dimensional materials: Major advances and challenges in the emerging renewable energy conversion and other applications. <b>2021</b> , 61, 100294	11
628	Epoxy coating anti-corrosion properties enhancement via the steel surface treatment by nanostructured samarium oxide-poly-dopamine film. <b>2021</b> , 403, 123722	7
627	Centimeter-scale gas-sieving nanoporous single-layer graphene membrane. <b>2021</b> , 618, 118745	12
626	Fabrication of hierarchical 3D prickly ball-like Co <sub>3</sub> O <sub>4</sub> oxides/reduced graphene oxide composite for electrochemical sensing of L-cysteine. <b>2021</b> , 853, 157077	9
625	Characterization of graphene/pine wood biochar hybrids: Potential to remove aqueous Cu. <b>2021</b> , 192, 110283	11

624	Single step synthesis of reduced graphene oxide/SnO <sub>2</sub> nanocomposites for potential optical and semiconductor applications. <b>2021</b> , 264, 114938	5
623	Size-dependent structural behaviors of crumpled graphene sheets. <b>2021</b> , 174, 148-157	13
622	Direct transfer of electron microscopy samples to wetted carbon and graphene films via a support floatation block. <b>2021</b> , 213, 107677	0
621	Facile synthesis of novel carbon dots@metal organic framework composite for remarkable and highly sustained oxygen evolution reaction. <b>2021</b> , 856, 158038	11
620	Straining and Tuning Atomic Layer Nanoelectromechanical Resonators via Comb-Drive MEMS Actuators. <b>2021</b> , 6, 2000794	5
619	Can graphene and graphene oxide materials revolutionise desalination processes?. <b>2021</b> , 500, 114852	9
618	Transport of Shale Gas in Microporous/Nanoporous Media: Molecular to Pore-Scale Simulations. <b>2021</b> , 35, 911-943	29
617	Effects of cell defects on the mechanical and thermal properties of carbon honeycombs. <b>2021</b> , 187, 110125	3
616	Uptake of azaarenic 2-Methylpyridine by pre-cooled carboxyl functionalized graphene nanocomposite: Detection, sorption and optimization. <b>2021</b> , 39, 101686	2
615	Gradient structure polyimide/graphene composite aerogels fabricated by layer-by-layer assembly and unidirectional freezing. <b>2021</b> , 138, 50153	0
614	Design and implementation of miniaturized wideband microstrip patch antenna for high-speed terahertz applications. <b>2021</b> , 20, 604-610	14
613	Effect of defect guided out-of-plane deformations on the mechanical properties of graphene. <b>2021</b> , 29, 83-99	4
612	Synthesis of magnetic two-dimensional materials by chemical vapor deposition. <b>2021</b> , 14, 1789-1801	9
611	Optimizing the reinforcement effect of graphene oxide on polyimide by ternary copolymerization. <b>2021</b> , 60, 849-861	2
610	Quasi-static 3D structure of graphene ripple measured using aberration-corrected TEM. <b>2021</b> , 13, 5847-5856	1
609	Characteristic Response Transition of Reduced Graphene Oxide as Hydrogen Gas Sensor-The Effect of Temperature and Doping Concentration. <b>2021</b> , 371-385	
608	The role of multifunctional nanomaterials in the remediation of textile wastewaters. <b>2021</b> , 95-136	1
607	Hydrothermally Reduced Graphene Hydrogel Intercalated with Divalent Ions for Dye Adsorption Studies. <b>2021</b> , 9, 169	10

606	Phonon transport in graphene based materials. <b>2021</b> , 23, 26030-26060	5
605	Two-dimensional materials as solid-state nanopores for chemical sensing. <b>2021</b> , 50, 13608-13619	3
604	Application of graphene in energy storage device [A review]. <b>2021</b> , 135, 110026	171
603	Nanostructured thermoelectric materials. <b>2021</b> , 261-311	
602	Atomic and electronic structure of graphene. <b>2021</b> , 15-26	
601	The effect of different electrolytes on the synthesis of graphene sheets by electrochemical exfoliation. <b>2021</b> ,	
600	Graphene-Based Carbons of Tuned Nanoporosity and Crystallinity. <b>2021</b> , 153-174	
599	A room-temperature ultrasonic hydrogen sensor based on a sensitive layer of reduced graphene oxide. <b>2021</b> , 11, 2404	6
598	Self-folding and self-scrolling mechanisms of edge-deformed graphene sheets: a molecular dynamics study. <b>2021</b> , 23, 15313-15318	
597	A DFT-based analysis of adsorption properties of fluoride anion on intrinsic, B-doped, and Al-doped graphene. <b>2021</b> , 27, 56	3
596	A new 2D auxetic CN nanostructure with high energy density and mechanical strength. <b>2021</b> , 23, 4353-4364	3
595	Graphene, an Interesting Nanocarbon Allotrope for Biosensing Applications: Advances, Insights, and Prospects. <b>2021</b> , 12, 1179597220983821	2
594	A survey on pristine and intercalation doped graphene nanoribbon interconnect for future VLSI circuits. <b>2021</b> , 8, 247-260	
593	Porous Graphene Membranes for Solute Separation via Reverse Osmosis and Electrodialysis. <b>2021</b> , 145-162	
592	Structural and electronic properties of layered nanoporous organic nanocrystals.. <b>2021</b> , 11, 5773-5784	2
591	Locomotion of the C-based nanomachines on graphene surfaces. <b>2021</b> , 11, 2576	3
590	One-pot bottom-up synthesis of a 2D graphene derivative: application in biomolecular recognition and nanozyme activity. <b>2021</b> , 3, 5102-5110	2
589	Facile Synthesis and Characterization of Few-Layer Multifunctional Graphene from Sustainable Precursors by Controlled Pyrolysis, Understanding of the Graphitization Pathway, and Its Potential Application in Polymer Nanocomposites. <b>2021</b> , 6, 1809-1822	4



588	Cancer Cell Detection on the Surface of Top-Gated Monolayer Graphene via Raman Spectroscopy.. <b>2021</b> , 4, 1493-1498	2
587	Microscopic origin of graphene nanosheets derived from coal-tar pitch by treating ALC as the intermediate. <b>2021</b> , 23, 12449-12455	0
586	Supercapacitors based on graphene and its hybrids. <b>2021</b> , 129-157	
585	Scalable synthesis of nanoporous atomically thin graphene membranes for dialysis and molecular separations facile isopropanol-assisted hot lamination. <b>2021</b> , 13, 2825-2837	5
584	Pure thermal spin current and perfect spin-filtering with negative differential thermoelectric resistance induced by proximity effect in graphene/silicene junctions. <b>2021</b> , 11, 104	4
583	Emerging elemental two-dimensional materials for energy applications. <b>2021</b> , 9, 18793-18817	3
582	Graphene: A two dimensional super material for sensor applications. <b>2021</b> , 43, 203-208	4
581	Electronic structure of polypyrrole composited with a low percentage of graphene nanofiller. <b>2021</b> , 23, 8557-8570	1
580	Co3O4-CeO2/Graphene Composite as a Novel Sensor for Amaranth Detection. <b>2021</b> , 168, 027513	1
579	Nanomaterials for sustainable remediation of chemical contaminants in water and soil. 1-50	10
578	INTRODUCTION TO TWO-DIMENSIONAL MATERIALS. <b>2021</b> , 28, 2140005	6
577	High Performance Field-Effect Transistors Based on Partially Suspended 2D Materials via Block Copolymer Lithography. <b>2021</b> , 13,	
576	Graphene-reinforced polymer matrix composites fabricated by in situ shear exfoliation of graphite in polymer solution: processing, rheology, microstructure, and properties. <b>2021</b> , 32, 175703	0
575	Quantification of the mechanical strength of thermally reduced graphene oxide layers on flexible substrates. <b>2021</b> , 243, 107525	2
574	Crumpled and porous graphene for supercapacitor applications: a short review. <b>2021</b> , 31, 537	5
573	Quantitative estimation of atom-scaled ripple structure using transmission electron microscopy images. <b>2021</b> , 32, 185703	2
572	Polypyrrole/reduced graphene aerogel film for wearable piezoresistive sensors with high sensing performances. <b>2021</b> , 4, 86-95	43
571	Effect of Amine Molecular Chain Length on the Mechanical and Thermal Properties of Functionalized Graphene Oxide/Polyurea Nanocomposites. <b>2021</b> , 13, 199-208	

- 570 Electron-phonon contribution in aluminene: Superconductive and transport properties. **2021**, 151, 106822 2
- 569 Nanocellulose-Graphene Hybrids: Advanced Functional Materials as Multifunctional Sensing Platform. **2021**, 13, 94 7
- 568 Printability study of self-supporting graphene oxide-laponite nanocomposites for 3D printing applications. **2021**, 114, 343-355 1
- 567 Toward the perfect membrane material for environmental x-ray photoelectron spectroscopy. **2021**, 54, 234001 2
- 566 A Review of Graphene Nanoribbon Field-Effect Transistor Structures. **2021**, 50, 3169-3186 2
- 565 Graphene: An overview of its characteristics and applications. **2021**, 7
- 564 Facile single-step synthesis of Cu-rGO nanocomposite through simultaneous reduction process and its peroxidase mimic activity. **2021**, 95, 388-396 3
- 563 2D Nanomaterials for Effective Energy Scavenging. **2021**, 13, 82 15
- 562 Li Selectivity of Carboxylate Graphene Nanopores Inspired by Electric Field and Nanoconfinement. **2021**, 17, e2006704 5
- 561 Electrical studies on a single, binary, and ternary nanocomposites of Mn<sub>3</sub>O<sub>4</sub>@TiO<sub>2</sub>@rGO. **2021**, 32, 10224-10239 9
- 560 A density functional theory study of electric, magnetic and optical properties of perfect and defected Germanium Carbide (GeC) sheet. **2021**, 26, e00533 2
- 559 Nonlinear forced vibrations of initially curved rectangular single layer graphene sheets: An analytical approach. **2021**, 127, 114568 3
- 558 Polarization amplification by spin-doping in nanomagnetic/graphene hybrid systems. **2021**, 5, 0
- 557 Biomedical Applications of Electrospun Graphene Oxide. **2021**, 7, 1278-1301 10
- 556 A DFT-BASED ANALYSIS OF ADSORPTION PERFORMANCE OF CU<sup>2+</sup> AND ZN<sup>2+</sup> ON DEFECTIVE GRAPHENE FOR THE APPLICATION OF POLLUTING METAL IONS TREATMENT. **2021**, 28, 2150061 0
- 555 Francisites as new geometrically frustrated quasi-two-dimensional magnets. **2021**, 64, 344-356 4
- 554 Crumpled Graphene-Storage Media for Hydrogen and Metal Nanoclusters. **2021**, 14, 1
- 553 Bonding few-layered graphene via collision with high-speed fullerenes. **2021**, 32,

552	Preparation of CD3 Antibody-Conjugated, Graphene Oxide Coated Iron Nitride Magnetic Beads and Its Preliminary Application in T Cell Separation. <b>2021</b> , 7, 58	1
551	Enhancing spin-orbit coupling in high-mobility graphene by introducing chiral space curvature. <b>2021</b> , 23, 043031	1
550	In Situ SAXS and WAXD Investigations of Polyamide 66/Reduced Graphene Oxide Nanocomposites During Uniaxial Deformation. <b>2021</b> , 6, 11762-11771	3
549	Advances on Graphene-Based Nanomaterials and Mesenchymal Stem Cell-Derived Exosomes Applied in Cutaneous Wound Healing. <b>2021</b> , 16, 2647-2665	6
548	Two-dimensional nanomaterials with engineered bandgap: Synthesis, properties, applications. <b>2021</b> , 37, 101059	24
547	Preparation and Mechanical Properties of Layered Cu/Gr Composite Film. <b>2021</b> , 11, 502	0
546	An exploration on the form factors of turbulence kinetic energy transfer for shear exfoliation of graphene. <b>2021</b> ,	1
545	Graphene-based SERS for sensor and catalysis. 1-38	10
544	Geometrically induced localization of flexural waves on thin warped physical membranes. <b>2021</b> , 103, 053002	
543	Feature-Rich Geometric and Electronic Properties of Carbon Nanoscrolls. <b>2021</b> , 11,	0
542	Functionalization of Metal and Carbon Nanoparticles with Potential in Cancer Theranostics. <b>2021</b> , 26,	10
541	Diffusion Induced Different Distributions of Sulfur Clusters on Suspended and Supported Graphene. <b>2021</b> , 125, 11722-11727	
540	Computational Study of Electronic and Thermoelectric Properties of ZnO/Graphene Heterostructures. <b>2021</b> , 42, 1	4
539	The effect of rippling on the mechanical properties of graphene. <b>2021</b> ,	7
538	Response of free-standing graphene monolayer exposed to ultrashort intense XUV pulse from free-electron laser. <b>2021</b> , 154, 204706	1
537	Single-Step Production of a TiO@MoS Heterostructure and Its Applications as a Supercapacitor Electrode and Photocatalyst for Reduction of Cr(VI) to Cr(III). <b>2021</b> , 6, 13008-13014	5
536	Comparative image simulations for phase-plate transmission electron microscopy. <b>2021</b> , 227, 113319	1
535	Investigating the Photodetectors and pH Sensors of Two-Dimensional MoS <sub>2</sub> with Different Substrates. <b>2021</b> , 10, 055015	

534	Twist-angle-dependent thermal conduction in single-crystalline bilayer graphene. <b>2021</b> , 118, 193104	5
533	New perspectives on Graphene/Graphene oxide based polymer nanocomposites for corrosion applications: The relevance of the Graphene/Polymer barrier coatings. <b>2021</b> , 154, 106215	14
532	All-Graphitic Multilaminar Mesoporous Membranes by Interlayer-Confined Molecular Assembly. <b>2021</b> , 17, e2101173	4
531	Investigation Adsorption Mechanism of Methane Gas in Graphene and Copper Doped Nano-ribbon Using Density Function Theory. <b>2021</b> , 1879, 032099	
530	Density Functional Theory Study on Sensing and Dielectric Properties of Arsenic Trisulfide Nanosheets for Detecting Volatile Organic Compounds. <b>2021</b> , 4, 5444-5453	4
529	Enhanced Electrochemical Performance of Hydrothermally Exfoliated Hexagonal Boron Nitride Nanosheets for Applications in Electrochemistry. <b>2021</b> , 168, 056512	2
528	Effects of graphene oxide on tomato growth in different stages. <b>2021</b> , 162, 447-455	14
527	Pseudobrookite based heterostructures for efficient electrocatalytic hydrogen evolution. <b>2021</b> , 1, 100020	2
526	A facile and industrial method for synthesis of modified magnetic lipophilic graphene as a super oil additive. <b>2021</b> , 20, 89-101	2
525	Separating B/N co-doped armchair graphene nanoribbons by hydrogen atom chains: Based on first-principles study. <b>2021</b> , 116, 108399	1
524	Deep Learning Segmentation of Complex Features in Atomic-Resolution Phase-Contrast Transmission Electron Microscopy Images. <b>2021</b> , 27, 804-814	4
523	The Different Story of Bonds. <b>2021</b> , 26,	1
522	Fabrication an electrochemical sensor based on composite of Cu-TCPP nanosheets and PSS functionalized graphene for simultaneous and sensitive determination of dihydroxybenzene isomers. <b>2021</b> , 890, 115232	6
521	Microscale simulation method for prediction of mechanical properties and composition design of multilayer graphene-reinforced ceramic bearings. <b>2021</b> , 47, 17531-17539	0
520	One-pot synthesis of pre-reduced graphene oxide for efficient production of high-quality reduced graphene oxide and its lithium storage application. <b>2021</b> , 265, 124523	2
519	Mechanical and Viscoelastic Properties of Wrinkled Graphene Reinforced Polymer Nanocomposites - Effect of Interlayer Sliding within Graphene Sheets. <b>2021</b> , 177, 128-137	8
518	Thermal Buckling Transition of Crystalline Membranes in a Field. <b>2021</b> , 127, 015702	5
517	Mechanical properties of graphene. <b>2021</b> , 8, 021310	12

516	A Dirac-Fermions functional for Coulomb interaction on arbitrary (fractional) dimension: Energy and pressure. <b>2021</b> , 402, 127363	0
515	Combining low and high electron energy diffractions as a powerful tool for studying 2D materials. <b>2021</b> , 127, 1	0
514	Real-Time Multiscale Monitoring and Tailoring of Graphene Growth on Liquid Copper. <b>2021</b> , 15, 9638-9648	8
513	Atomic-scale investigation of carbon-based materials by gentle transmission electron microscopy. <b>2021</b> , 36, 497-511	2
512	Strong strain hardening in graphene/nanotwinned metal composites revealed by molecular dynamics simulations. <b>2021</b> , 201, 106460	2
511	New stable two dimensional silicon carbide nanosheets. <b>2021</b> , 868, 159201	3
510	Graphene for Thermal Storage Applications: Characterization, Simulation and Modelling. <b>2021</b> , 50, 5090	0
509	Synthesis, characterization, and performance of nanocomposites containing reduced graphene oxide, polyaniline, and cobalt ferrite. <b>2021</b> , 612, 412974	6
508	van der Waals Epitaxy Growth of Bi <sub>2</sub> Se <sub>3</sub> on a Freestanding Monolayer Graphene Membrane: Implications for Layered Materials and Heterostructures. <b>2021</b> , 4, 7607-7613	
507	Acrylonitrile-based polymer/graphene nanocomposites: A review. <b>2021</b> , 42, 4961	0
506	Effects of pyridine-like and pyrrolic-like nitrogen on the photoluminescence blue-shift of nitrogen-doped graphene oxide quantum dots. <b>2021</b> , 235, 117983	2
505	3D electron diffraction of mono- and few-layer MoS. <b>2021</b> , 146, 103071	1
504	Mechanisms of Spontaneous Curvature Inversion in Compressed Graphene Ripples for Energy Harvesting Applications via Molecular Dynamics Simulations. <b>2021</b> , 11,	0
503	Optical Absorption and Reflectivity of Four 2D Materials: MoS <sub>2</sub> , MoP <sub>2</sub> , NbS <sub>2</sub> , and NbP <sub>2</sub> . <b>2021</b> , 8,	1
502	DFT Study of Chemical Adsorption of NO <sub>2</sub> Gas on Graphene Nano Material. 1039, 391-397	0
501	Lateral size effect of reduced graphene oxide on properties of copper matrix composites. <b>2021</b> , 820, 141579	2
500	AAZO-Graphene composite phase change materials with Photo-thermal conversion performance. <b>2021</b> , 223, 11-18	6
499	Understanding transition metal dichalcogenide absorption line widths in electron energy loss spectroscopy. <b>2021</b> , 27, 1170-1172	

498	Graphene nanoribbon: An emerging and efficient flat molecular platform for advanced biosensing. <b>2021</b> , 184, 113245	10
497	Phototransformation of Graphene Oxide on the Removal of Sulfamethazine in a Water Environment. <b>2021</b> , 11,	1
496	Metal/Metal Oxide Modified Graphene Nanostructures for Electrical Biosensing Applications: A Review. <b>2021</b> , 21, 17629-17642	2
495	Application of Polymer Based Nanocomposites for Water Shutoff. A Review. <b>2021</b> , 2, 304-322	0
494	Synthesis, characterisation and thermo-physical properties of highly stable graphene oxide-based aqueous nanofluids for potential low-temperature direct absorption solar applications. <b>2021</b> , 11, 16549	3
493	Defects in multilayer MoS <sub>2</sub> grown by pulsed laser deposition and their impact on electronic structure. <b>2021</b> , 130, 084303	0
492	Emerging two-dimensional monoelemental materials (Xenes): Fabrication, modification, and applications thereof in the field of bioimaging as nanocarriers. <b>2021</b> , e1750	2
491	Xylitol-assisted ball milling of graphite to prepare long-cycle and high-capacity graphene nanosheet as lithium-ion anode materials. <b>2021</b> , 56, 18200-18209	1
490	Photo-Switchable Nanoripples in TiC MXene. <b>2021</b> , 15, 14071-14079	2
489	Direct Visualization of Large-Scale Intrinsic Atomic Lattice Structure and Its Collective Anisotropy in Air-Sensitive Monolayer 1T'-WTe <sub>2</sub> . <b>2021</b> , 8, e2101563	3
488	Study on Self-Sensing Performance of Graphene-Modified FRP Bars. 896, 81-86	
487	Multi-Scale Structure-Mechanical Property Relations of Graphene-Based Layer Materials. <b>2021</b> , 14,	1
486	Elimination of Grain Boundaries in Graphene Growth on a Cu/Ni Alloyed Substrate by Chemical Vapor Deposition. <b>2021</b> , 125, 18217-18224	
485	Exploring the potential of graphene materials in marine and shipping industries [A technical review for prospective application on ship operation and material-structure aspects. <b>2021</b> , 6, 299-316	7
484	Potential of Carbon-Based Nanocomposites for Dental Tissue Engineering and Regeneration. <b>2021</b> , 14,	2
483	Strong magnetoresistance in a graphene Corbino disk at low magnetic fields. <b>2021</b> , 104,	1
482	Ab Initio Study of Electronic Properties of Zigzag Graphene Nanoribbon Doped with B, N, and P. <b>2021</b> , 10, 091007	
481	Temperature-Dependent Adhesion in van der Waals Heterostructures. <b>2021</b> , 8, 2100838	1

480	Limits of lateral expansion in two-dimensional materials with line defects. <b>2021</b> , 5,	0
479	Symmetry of diffraction patterns of two-dimensional crystal structures. <b>2021</b> , 228, 113336	
478	Dynamics of pull and release of graphene nanoribbons. <b>2021</b> , 197, 110568	
477	AFM and Cu Electrodeposition Studies of Reduced Graphene Oxide Modified Au(111) Facets Prepared using Electrodeposition and Post-Deposition Pulse Treatment. <b>2021</b> , 168, 096507	1
476	Registry-Dependent Peeling of Layered Material Interfaces: The Case of Graphene Nanoribbons on Hexagonal Boron Nitride. <b>2021</b> , 13, 43533-43539	0
475	Ambient energy dispersion and long-term stabilisation of large graphene sheets from graphite using a surface energy matched ionic liquid $\square$ <b>2021</b> , 1, 100001	1
474	Retrieving and morphological portrayal of Cu-nanoparticle impregnated reduced graphene oxide (CuNP@rGO) electrochemical bio-sensor. <b>2021</b> , 329, 112826	5
473	Orthorhombic Fmmm-C80: A new superhard carbon allotrope with direct band gap. <b>2021</b> , 198, 110689	1
472	Thermal behaviour during initial stages of graphene oxidation: Implications for reaction kinetics and mechanisms. <b>2021</b> , 421, 129742	5
471	Highly active iron-nitrogen-boron-carbon bifunctional electrocatalytic platform for hydrogen peroxide sensing and oxygen reduction. <b>2021</b> , 201, 111563	5
470	Graphene quantum dots (GQDs) nanoarchitectonics for theranostic application in lung cancer. <b>2021</b> , 1-18	0
469	Recent trends in transition metal diselenides (XSe <sub>2</sub> : X = Ni, Mn, Co) and their composites for high energy faradic supercapacitors. <b>2021</b> , 43, 103176	10
468	Fabrication of high performance TFN membrane incorporated with graphene oxide via support-free interfacial polymerization. <b>2021</b> , 793, 148503	1
467	Peeling of graphene/molybdenum disulfide heterostructure at different angles: A continuum model with accommodations for van der Waals interaction. <b>2021</b> , 150, 106592	2
466	A review on desalination by graphene-based biomimetic nanopore: From the computational modelling perspective. <b>2021</b> , 342, 117582	1
465	Computational assessment of Stone-Wales defects on the elastic modulus and vibration response of graphene sheets. <b>2021</b> , 209, 106702	0
464	The growth of large-sized graphene domains by Faraday cage-assisted plasma enhanced chemical vapor deposition. <b>2021</b> , 6, 100154	1
463	Recent advances in graphene sheets as new generation of flame retardant materials. <b>2021</b> , 274, 115460	18

- 462 High-performance electromagnetic interference shielding epoxy/Ag nanowire/thermal annealed graphene aerogel composite with bicontinuous three-dimensional conductive skeleton. **2021**, 151, 106648 6
- 461 Few-layer graphene prepared via microwave irradiation of black sesame for supercapacitor applications. **2021**, 425, 130664 4
- 460 Investigating states of gas in water encapsulated between graphene layers. **2021**, 12, 2635-2645 2
- 459 A theoretical study of wrinkle propagation in graphene with flower-like grain boundaries. **2021**, 23, 11917-11930
- 458 Edge State Induced Spintronic Properties of Graphene Nanoribbons: A Theoretical Perspective. **2021**, 165-198
- 457 Kohlenstoffgruppe: Elemente der vierten Hauptgruppe. **2021**, 211-276
- 456 DFT Calculation of NO Adsorption on Cr Doped Graphene. **2021**, 36, 1047
- 455 Molecular Dynamics Simulation of the Stability Behavior of Graphene in Glycerol/Urea Solvents in Liquid-Phase Exfoliation. **2021**, 79, 530 1
- 454 Highly tunable charge transport in defective graphene nanoribbons under external local forces and constraints: A hybrid computational study. **2021**, 20, 103770 1
- 453 Transmission electron microscopy characterization of graphene. **2021**, 317-343
- 452 Introduction to physics of low-dimensional systems. **2021**, 1-12
- 451 Black phosphorene/blue phosphorene van der Waals heterostructure: a potential anode material for lithium-ion batteries. **2021**, 23, 17392-17401 1
- 450 Analyzing the Dynamic Characteristics of Double-Walled Carbon Nanotube Reinforced Polymer Nanocomposites. **2021**, 429-463
- 449 Fe-doping induced localized amorphization in ultrathin  $\text{Ni}(\text{OH})_2$  nanomesh for superior oxygen evolution reaction catalysis. **2021**, 9, 14372-14380 10
- 448 Gentle STEM of Single Atoms: Low keV Imaging and Analysis at Ultimate Detection Limits. 119-161 9
- 447 Characterization of Single Particle Adhesion: A Review of Recent Progress. 157-200 1
- 446 Simulations of the Structural and Chemical Properties of Nanoporous Carbon. **2010**, 79-128 1
- 445 Improvement of Electrical Conductivity and Transparency. **2015**, 123-178 1



444	Application of Sustainable Nanocomposites in Membrane Technology. <b>2019</b> , 935-960	4
443	Free-Standing Graphene Materials for Supercapacitors. <b>2020</b> , 327-351	1
442	Present Status and Prospect of Graphene Research. <b>2019</b> , 1-29	1
441	Bio-Inspired Engineering of 3D Carbon Nanostructures. <b>2016</b> , 365-420	1
440	Scrutinizing the Endohedral Space: Superatom States and Molecular Machines. <b>2017</b> , 123-157	1
439	Graphene. <b>2017</b> , 1-1	7
438	Graphene Edge Structures: Folding, Scrolling, Tubing, Rippling and Twisting. <b>2012</b> , 75-85	6
437	Graphite Nanopatterning Through Interaction with Bio-organic Molecules. <b>2012</b> , 221-228	2
436	Applications. <b>2014</b> , 201-251	1
435	Graphene: 2D-Building Block for Functional Nanocomposites. <b>2011</b> , 143-148	2
434	Functionalized Graphene and Cobalt Phthalocyanine Based Materials with Potential Use for Electrical Conduction. <b>2014</b> , 185-215	1
433	Preparation of TiO <sub>2</sub> /graphene composite with appropriate N-doping ratio for humic acid removal. <b>2018</b> , 53, 613-625	20
432	Shock induced conversion of carbon dioxide to few layer graphene. <b>2017</b> , 115, 471-476	13
431	Graphene nanoparticles: The super material of future. <b>2020</b> , 28, 1290-1294	7
430	Janus XSe/SiC (X = Mo, W) van der Waals heterostructures as promising water-splitting photocatalysts. <b>2020</b> , 123, 114207	63
429	Topological carbon materials: A new perspective. <b>2020</b> , 868, 1-32	14
428	The Physics of Graphene. <b>2020</b> ,	16
427	Recent Advances in Gas and Humidity Sensors Based on 3D Structured and Porous Graphene and Its Derivatives. <b>2020</b> , 2, 1381-1411	19

426	CHAPTER 14:Graphene-Based Biosensors for Food Analysis. <b>2016</b> , 327-353	1
425	Chapter 1:Carbon-based Nanomaterials in Analytical Chemistry. <b>2018</b> , 1-36	5
424	Synthesis and application of magnetic reduced graphene oxide composites for the removal of bisphenol A in aqueous solution—mechanistic study. <b>2016</b> , 6, 102348-102358	19
423	Green and facile production of high-quality graphene from graphite by the combination of hydroxyl radicals and electrical exfoliation in different electrolyte systems.. <b>2019</b> , 9, 3693-3703	15
422	Limited thermal transport in rippled graphene induced by bi-axial strain for thermoelectric applications. <b>2017</b> , 122, 025115	8
421	The first-principles study on the graphene/MoS2 heterojunction. <b>2020</b> , 10, 045225	2
420	Probing divacancy defects in a zigzag graphene nanoribbon through an RKKY exchange interaction. <b>2021</b> , 54, 095302	1
419	Monolayer MoS2 on sapphire: an azimuthal reflection high-energy electron diffraction perspective. <b>2021</b> , 8, 025003	11
418	The impact of graphene nanofiller loading on the morphology and rheology behaviour of highly rigid polyurethane copolymer. <b>2020</b> , 7, 125304	8
417	A variational model for conformation of graphene wrinkles formed on a shrinking solid metal substrate. <b>2020</b> , 7, 085001	3
416	Effects of chirality and stacking on the thermal expansion effects of graphene. <b>2020</b> , 7, 115001	1
415	Bending rigidities and universality of flexural modes in 2D crystals. <b>2020</b> , 3, 02LT03	0
414	Enhancement of superconducting transition temperature in FeSe electric-double-layer transistor with multivalent ionic liquids. <b>2018</b> , 2,	11
413	Stacking, strain, and twist in 2D materials quantified by 3D electron diffraction. <b>2019</b> , 3,	14
412	Interface engineering of graphene nanosheet reinforced ZrB2 composites by tuning surface contacts. <b>2019</b> , 3,	2
411	Large graphene-induced shift of surface-plasmon resonances of gold films: Effective-medium theory for atomically thin materials. <b>2020</b> , 2,	2
410	Autocorrected off-axis holography of two-dimensional materials. <b>2020</b> , 2,	3
409	MECHANICAL PROPERTIES, STABILITY, AND BUCKLING OF GRAPHENE SHEETS AND CARBON NANOTUBES (REVIEW). <b>2020</b> , 61, 834-846	6

408	CARBON-BASED HIGH ASPECT RATIO POLYMER NANOCOMPOSITES. <b>2013</b> , 85-123	2
407	Electron Cryomicroscopy and Image Reconstruction of Viral Nanoparticles. <b>2015</b> , 27-60	1
406	Research Progress in Preparation Technology of Graphene. <b>2016</b> , 06, 346-360	1
405	Transport Properties of Rippled Graphene. <b>2012</b> , 121, 1246-1249	5
404	Synthesis of Magnetite Nanoparticles by Biological Technique. <b>2017</b> , 14, 631-633	4
403	Dual-channel bistable switch based on a monolayer graphene nanoribbon nanoresonator coupled to a metal nanoparticle. <b>2020</b> , 28, 3136-3146	6
402	Graphene and Mo2C vertical heterostructure for femtosecond mode-locked lasers [Invited]. <b>2019</b> , 9, 3268	6
401	Characterizations of a graphene-polyimide hybrid electro-optical liquid crystal device. <b>2019</b> , 2, 83	8
400	Graphene Systems: Methods of Fabrication and Treatment, Structure Formation, and Functional Properties. <b>2010</b> , 11, 95-138	11
399	Graphene-based sensors. <b>2008</b> , 178, 757	5
398	Laser applications in nanotechnology: nanofabrication using laser ablation and laser nanolithography. <b>2013</b> , 183, 673-718	12
397	Hierarchical Porous Carbon Cobalt Nanocomposites-Based Sensor for Fructose. <b>2021</b> , 9, 6	3
396	Bundlet Model for Single-Wall Carbon Nanotubes, Nanocones and Nanohorns. 228-284	2
395	Synthesis and Characterization of Metal (Pt, Pd and Fe)-graphene Composites. <b>2011</b> , 48, 147-151	39
394	Sonophotocatalytic Performance of Bi2Se3-Graphene/TiO2Hybrid Nanomaterials Synthesized with a Microwave-assisted Method. <b>2014</b> , 51, 162-169	1
393	The Dissimilarities between Graphene and Frame-Like Structures. <b>2016</b> , 05, 55-72	1
392	Modeling and Simulation of Graphene Based Polymer Nanocomposites: Advances in the Last Decade. <b>2016</b> , 05, 96-142	33
391	Catalyst-Free Growth of Graphene by Microwave Surface Wave Plasma Chemical Vapor Deposition at Low Temperature. <b>2016</b> , 04, 10-14	2

- 390 Multilayer Graphene Synthesized by CVD Using Liquid Hexane as the Carbon Precursor. **2011**, 01, 157-160 11
- 389 Improving PMMA resin using graphene oxide for a definitive prosthodontic rehabilitation - A clinical report. **2019**, 11, e670-e674 7
- 388 Characterization of Graphene Sheets Formed by the Reaction of Carbon Monoxide with Aluminum Sulfide. **2009**, 30, 3045-3048 20
- 387 Molecular Dynamics Simulations of Graphite-Vinylester Nanocomposites and Their Constituents. **2010**, 11, 316-324 20
- 386 Comprehensive review on synthesis and adsorption behaviors of graphene-based materials. **2012**, 13, 73-87 34
- 385 Relaxation properties of graphene nanoribbons at different ambient temperatures: a molecular dynamics study. **2012**, 61, 200207 7
- 384 Molecular dynamics study on relaxation properties of monolayer MoS<sub>2</sub> nanoribbons. **2016**, 65, 160201 5
- 383 Research status and development graphene devices using silicon as the substrate. **2017**, 66, 218102 3
- 382 Fabrication of Graphene-Based Electrochemical Capacitors. **2012**, 51, 01AH06 9
- 381 Electronic Structure of Corrugated Graphene Sheet. **2012**, 51, 02BN05 7
- 380 Gas Altered Hierarchical Porous Graphene Aerogel with High Energy Density.
- 379 Spin-less particle on a rotating curved surface in Minkowski space. 0
- 378 Electrical, thermal and electrochemical properties of Frey-reduced graphene oxide. **2021**, 28, 1726-1734 4
- 377 A Perspective on Collective Properties of Atoms on 2D Materials. 2100607
- 376 Fano resonance of optical phonons in a multilayer graphene stack.
- 375 Supercurrent and Phase Slips in a Ballistic Carbon Nanotube Bundle Embedded into a van der Waals Heterostructure. **2021**, 21, 8627-8633 1
- 374 A review of perfect absorbers based on the two dimensional materials in the visible and near-infrared regimes. **2022**, 55, 093002 4
- 373 Structural stability and electron-phonon coupling in two-dimensional carbon allotropes at high electronic and atomic temperatures. **2021**, 5, 100121 0

- 372 Electronic and Vibrational Decoupling in Chemically Exfoliated Bilayer Thin Two-Dimensional VO. **2021**, 12, 9821-9829 1
- 371 Porous graphene membranes under small tensile strains exhibit higher percolation barriers to the passing molecules. **2021**, 27, 101526
- 370 Toward clean and crackless polymer-assisted transfer of CVD-grown graphene and its recent advances in GFET-based biosensors. **2021**, 22, 100578 0
- 369 Superconducting Proximity Effect in Multilayer Graphene. **2008**, 29, 315-320
- 368 STM/STS Observations of Graphene Edges. **2008**, 29, 304-309 1
- 367 Unique and Persistent Surfaces of the Source. **2009**, 37-60
- 366 Electronic Structures of Graphite and Related Materials. **2009**, 221-262
- 365 Chapter 4:The Nano-frontier; Properties, Achievements, and Challenges. **2010**, 182-258
- 364 Chapter 3:Fullerenes, the Building Blocks. **2010**, 109-181
- 363 Long-term dynamic stability of discrete dislocations in graphene at finite temperature. **2010**, 215-223
- 362 New Insight into the Graphene Based Films Prepared from Carbon Fibers. **2011**, 02, 833-837 1
- 361 Bundlet Model for Single-Wall Carbon Nanotubes, Nanocones and Nanohorns. **2012**, 2, 48-98 2
- 360 Graphene. **2012**, 579-595
- 359 Characteristic of Graphene Oxide based Device Assembled by Dielectrophoresis. **2012**, 8, 56-60
- 358 Electronic Transport in Graphene. **2012**, 59-94
- 357 Helical Wrapping of Graphene Sheets and Their Self-Assembly into Core-Shelled Composite Nanostructures with Metallic Particles. **2013**, 1-40
- 356 Gold Nanoparticle Optical Effect on Graphene. **2013**, 9, 1-4
- 355 Graphene Oxide based Metal ion Hybrid Supercapacitor. **2013**, 9, 22-27

- 354 X-Ray Spectral Investigation of Carbon Nanocapsule and Graphite Nanosheet Electronic Structures. **2013**, 2013, 1-6 2
- 353 Graphene. **2013**, 1-30
- 352 Graphene Synthesis. **2013**, 1-28
- 351 Surface Characterization of Graphene. **2013**, 73-90
- 350 Growing Monolayer, Bilayer and Trilayer Reproducibly By Chemical Exfoliation. **2014**, 671-672
- 349 Graphene—Two-Dimensional Crystal. **2014**, 3-27
- 348 Electron Diffraction from a Cold Atom Electron Source. **2014**,
- 347 Chemically derived graphene. **2014**, 223-250 1
- 346 Ripples of multilayer graphenes:a molecular dynamics study. **2014**, 63, 086102 5
- 345 Synthesis of Two-dimensional Polymer for Molecular-sieve Membranes. **2014**, 39, 118-131
- 344 The Versatile Roles of Graphene in Organic Photovoltaic Device Technology. **2015**, 223-251 1
- 343 Fabrication of Graphene Using Exfoliation Method. **2014**, 18, 7-12
- 342 Electric field controlled energy gap and Landau levels in silicene. **2015**, 64, 087302 1
- 341 Introduction. **2015**, 1-26
- 340 Modeling of Nanostructures. **2015**, 1-55 1
- 339 Covalent Graphene-Polymer Nanocomposites. 101-149
- 338 References. 257-276
- 337 Bionic Graphene Nanosensors. **2016**, 269-297

336 Bibliography. 327-351

335 Wādiwođi grafenu .. **2016,**

334 Progress in Surface Properties and the Surface Testing of Graphene. **2016,** 05, 48-57

333 Cluster Origin of Solvation Features of C-Nanostructures in Organic Solvents. **2016,** 189-293

332 Peculiarities of «host-guest» complexation between double-walled carbon nanotubes and bis(cyclopentadienyl)nickel. **2016,** 7, 330-336

331 Host-guest complexing of double-walled carbon nanotube with metallocenes. **2016,** 7, 373-378

330 Preparation of Ni-C Ultrafine Composite from Waste Material. **2017,** 2, 695-701

0

329 Introduction. **2018,** 1-22

328 Double-layer silicene-based carcerands: molecular containers for unstable compounds. **2017,** 8, 416-421

327 First-principles study of graphene nanoflakes with large spin property. **2018,** 67, 187102

1

326 Chapter 6:Mass Transport Properties of Composite Membranes Containing Graphene Oxide Nanosheets. **2018,** 115-139

325 Graphene and Graphene Oxide as Nanofiller for Polymer Blends. **2019,** 231-257

1

324 Effect of Graphene Nanosheets Reinforcement on the Mechanical Properties of Rubber Seed Oil Based Polyurethane Nanocomposites. **2019,** 139-153

323 Graphene Functionalizations on Copper by Spectroscopic Techniques. **2019,** 313-333

322 ~~Graphene~~ **2019,** 200, 343-360

321 ~~Graphene~~ **2019,** 14, 10-16

2

320 Review: Electronic Band Structure and Interface Properties. **2020,** 13-36

319 StructureProperty Co-relation of Graphene/Graphene Derivative Based TPE. **2020,** 127-181

- 318 Adsorption-induced spontaneous curvature and superflexibility in monolayer graphene. **2020**, 4,
- 317 Study on Graphene-modified FRP Bars Used in the Process of Construction Health Management. **2021**, 2, 28-33
- 316 Terahertz Detectors Based on Carbon Nanomaterials. 2107499 2
- 315 Variational model for collapsed graphene wrinkles. **2021**, 127, 1
- 314 Inhomogeneities of charge distribution in porous graphitic carbon nitride g-CxNy nanosheets. **2020**, 74, 1
- 313 Natural Rubber/Graphene Nanocomposites and Their Applications. **2021**, 203-220
- 312 Graphene Functionalization for Polymer Nanocomposites. 1-50
- 311 Distinctive evaporation characteristics of water and ethanol on graphene nanostructured surfaces. **2022**, 183, 122174 1
- 310 Interfacial Mechanics Between van der Waals Materials. **2020**, 97-134
- 309 Mechanical Behavior at Graphene/Polymer Interfaces Under Biaxial Compression. **2020**, 51-66
- 308 Analyzing the Dynamic Characteristics of Double-Walled Carbon Nanotube Reinforced Polymer Nanocomposites. **2020**, 1-35
- 307 Large Shift of Surface Plasmon Resonances on Gold Film with Graphene. **2020**,
- 306 Carbon Allotropes. **2020**, 143-162
- 305 Kohlenstoffgruppe: Elemente der vierten Hauptgruppe. **2020**, 1-66
- 304 Suspended few-layered GaS photodetector with high responsivity and fast response speed. **2021**, 212, 110233 2
- 303 Near-field radiative heat transfer between topological insulators via surface plasmon polaritons. **2021**, 24, 103408 1
- 302 Understanding an Exceptionally Fast and Stable Li-Ion Charging of Highly Fluorinated Graphene with Fine-Controlled C-F Configuration. **2021**, 13, 53767-53776 0
- 301 Conjugated Polymer/Graphene Oxide Nanocomposites State-of-the-Art. **2021**, 5, 292 1



- 300 A Global Routing Method for Graphene Nanoribbons Based Circuits and Interconnects. **2020**, 16, 1-28 2
- 299 Detecting and resolving individual adatoms, vacancies, and their dynamics on graphene membranes. **2008**, 37-38
- 298 *Nigella sativa* Seed Extract in Green Synthesis and Nanocomposite. **2021**, 179-190
- 297 Nanocrystalline C-Ni Hybrid Nanoporous Monoliths for Large-Capacity and Ultrahigh-Rate Energy Storage. 0
- 296 Roadblocks faced by graphene in replacing graphite in large-scale applications. **2020**, 1, 1
- 295 Toxicity of Graphene: An Update. **2021**, 259, 51-76 2
- 294 Graphene: Structure, properties, preparation, modification, and applications. **2022**, 1-24
- 293 Ultra-sensitive, lightweight, and flexible composite sponges for stress sensors based combining of through-hole polyimide sponge and pleated stacked reduced graphene oxide. **2022**, 218, 109179 2
- 292 Unfolding graphene nanosheets towards high barrier performance of epoxy/graphene nanocomposite coating. **2021**, 153, 106732 2
- 291 Thermalized buckling of isotropically compressed thin sheets.. **2021**, 104, 054141 3
- 290 Microwave thermally expanded graphene/polyaniline conductive paste for elaborate conductive pattern and conductive polyester fabric fabrication via screen printing. 1
- 289 Molecular dynamics simulation to enhance the mechanical and tribological properties of polyimide composites by graphene reinforcement. **2021**, 2083, 022107
- 288 The effect of graphene on structure and optical properties of CdSe nanoparticles for optoelectronic application. **2021**, 898, 162946 1
- 287 Weak antilocalization and Shubnikov-de Haas oscillations in single crystal CaCuSb. **2021**, 104, 0
- 286 Investigation of the role of defects on channel density profiles and their effect on the output characteristics of a nanowire FET.
- 285 Controlled Epitaxial Growth and Atomically Sharp Interface of Graphene/Ferromagnetic Heterostructure via Ambient Pressure Chemical Vapor Deposition. **2021**, 11, 2
- 284 Titanium Dioxide/Graphene Nanocomposites as High-Performance Anode Material for Lithium Ion Batteries. **2022**, 25-61
- 283 Enhanced photocatalytic performance of Nb doped TiO<sub>2</sub>/reduced graphene oxide nanocomposites over rhodamine B dye under visible light illumination. **2021**, 31, 1

- 282 Effect of reconstructed vacancy defects on the crumpling behavior of graphene sheets. **2021**, 6, 100057 2
- 281 Lamellar Bimetallic Thiolates: Synthesis, Characterization, and Their Utilization for the Preparation of Bimetallic Chalcogenide Nanocrystals through Mechanochemical Grinding. **2021**, 8, 2100898 1
- 280 Recent advances of the graphite exfoliation processes and structural modification of graphene: a review. **2021**, 23, 1 0
- 279 Possible pair-graphene structures govern the thermodynamic properties of arbitrarily stacked few-layer graphene. **2021**, 11, 23401
- 278 A study on interfacial behaviors of epoxy/graphene oxide derived from pitch-based graphite fibers. **2021**, 10, 1827-1837 2
- 277 Fabricated wearable and flexible chip composed strain of gallium and silver metals composites assembled on graphene inside PDMS matrix. **2022**, 99, 100345 0
- 276 Graphene/MXene Composite Aerogels Reinforced by Polyimide for Pressure Sensing. 4
- 275 Giant and controllable Goos-Hänchen shift of monolayer graphene strips enabled by a multilayer dielectric grating structure.. **2022**, 61, 844-850 0
- 274 Apparent Colors of 2D Materials. 2100221 2
- 273 Field-induced semiconductor-metal transition of hybrid ZnO and graphene nanocomposites. **2022**, 203, 111138
- 272 Facile one-step hydrothermal method for NiCo<sub>2</sub>S<sub>4</sub>/rGO nanocomposite synthesis for efficient hybrid supercapacitor electrodes. **2022**, 277, 125554 2
- 271 Construction of functionalized graphene separation membranes and their latest progress in water purification. **2022**, 285, 120301 1
- 270 Mechanistic insights into the selective mass-transport and fabrication of holey graphene-based membranes for water purification applications. **2022**, 431, 134248 0
- 269 Atomistic elucidation of mechanical properties and fracture phenomenon of defective indium selenide monolayer. **2022**, 30, e00637 0
- 268 The effect of quasi-free graphene layer on the electrical transport properties of sandwich-like graphene / Co nanoparticles / graphene structure. **2022**, 579, 152119
- 267 The theoretical study of mechanical property and thermostability analysis of poly(vinyl alcohol)/graphene oxide nanofiber composites with different architecture: Molecular dynamics simulation. **2021**, 42, 6478-6487 0
- 266 Smart electronic material GRAPHENE and its utilization as a photo-sensitive switchable device. **2022**, 103-114
- 265 High Performance of PVA Nanocomposite Reinforced by Janus-like Asymmetrically Oxidized Graphene: Synergetic Effect of H-bonding Interaction and Interfacial Crystallization. **2022**, 40, 373 0

264	2D hybrid nanoarchitecture electrocatalysts. <b>2022</b> , 11-23	
263	Highly stable electronic properties of rippled antimonene under compressive deformation. <b>2022</b> , 105,	0
262	Metal loaded nano-carbon gas sensor array for pollutant detection.. <b>2022</b> ,	0
261	Geometrical dynamics of edge-driven accretive surface growth. <b>2022</b> , 478,	
260	Nonlinear electrohydrodynamic ion transport in graphene nanopores.. <b>2022</b> , 8, eabj2510	3
259	Finite temperature mechanics of multilayer 2D materials. <b>2022</b> , 52, 101612	0
258	Preparation and characterization of an amine-modified graphene aerogel for enhanced carbon dioxide adsorption. <b>2022</b> , 57, 1727-1737	0
257	A comprehensive review: Super hydrophobic graphene nanocomposite coatings for underwater and wet applications to enhance corrosion resistance. <b>2022</b> , 31, 100326	1
256	Curvature and self-assembly of semi-conducting nanoplatelets. <b>2022</b> , 5,	4
255	Anomalously low electrostatic bending stiffness of graphene oxide 2D membranes regulates their environmental fate in aquatic ecosystems. <b>2022</b> , 10, 1414-1424	0
254	Biofunctionalization of graphene and its two-dimensional analogues and synthesis of biomimetic materials: a review. <b>2022</b> , 57, 3085-3113	3
253	Controllable nonreciprocal optical response and handedness-switching in magnetized spin-orbit coupled graphene. <b>2022</b> , 105,	2
252	Applications of Machine learning in Computational Nanotechnology.. <b>2021</b> ,	2
251	Recent progress on MXenes and MOFs hybrids: Structure, synthetic strategies and catalytic water splitting. <b>2022</b> ,	2
250	Spiral growth of adlayer graphene.. <b>2022</b> , e2107587	3
249	Role of ripples in altering the electronic and chemical properties of graphene.. <b>2022</b> , 156, 054708	1
248	Advances in Graphene/Inorganic Nanoparticle Composites for Catalytic Applications.. <b>2022</b> , e202100274	2
247	Low-temperature synthesis of 3D copper selenide micro-flowers for high-performance supercapacitors. <b>2022</b> , 314, 131857	0

- 246 Monolayer Graphitic Carbon Nitride as Metal-Free Catalyst with Enhanced Performance in Photo- and Electro-Catalysis.. **2022**, 14, 55 5
- 245 Human motion-driven self-powered stretchable sensing platform based on laser-induced graphene foams. **2022**, 9, 011413 15
- 244 Copper-phthalocyanine (CuPc) and O, Li and Mn adatoms on graphene substrate: First-principles study of stability, magnetism and electronic properties. **2022**, 719, 122023
- 243 Mo-rich rGO/HMoSe<sub>2</sub> nanocomposites with novel crystal growth plane of (106) for high hydrogen evolution reaction activity. **2022**, 142, 106475 0
- 242 Graphene-Based Tunable Metamaterial-FSS RAS. **2022**, 1-39
- 241 Susceptibility, entropy and specific heat of quantum rings in monolayer graphene: comparison between different entropy formalisms. 1 2
- 240 Ultra-strong optical four-wave mixing signal induced by strong exciton-phonon and exciton-plasmon couplings.. **2022**, 30, 6630-6639 0
- 239 Hydrogen Bond Donors Influence on the Electrochemical Performance of Composite Graphene Electrodes/Deep Eutectic Solvents Interface. **2022**, 3, 129-142 1
- 238 Fine-tuning the functionality of reduced graphene oxide via bipolar electrochemistry in freestanding 2D reaction layers. **2022**, 191, 439-447 2
- 237 Edge state in AB-stacked bilayer graphene and its correspondence with the Su-Schrieffer-Heeger ladder. **2021**, 104, 1 1
- 236 The application of nanotechnology for quantification of circulating tumour DNA in liquid biopsies: a systematic review.. **2022**, PP, 0
- 235 Flat bands and the related novel quantum states in two-dimensional systems. **2022**,
- 234 Engineering of the Properties of Low Dimensional Materials via Inhomogeneous Strain. **2022**,
- 233 Nanoscale Mechanics of Metal-Coated Graphene Nanocomposite Powders.
- 232 Generate high data rate of optical carries by using nanomaterial graphene in slab waveguide. **2022**, 9, 187-192
- 231 Scanning electron microscopy of Escherichia coli encapsulated in a spacerized graphene sandwich.. **2022**,
- 230 Design and Fabrication of a Graphene/Polyvinylidene Fluoride Nanocomposite-Based Airflow Sensor.. **2022**, 7, 7981-7988 3
- 229 Luminescence turn-off detection of metal ions and explosives using graphene quantum dots. **2022**, 12, 168 0

228 Liquid Metal as a New Reaction Medium. **2022**, 153-215

227 Carbon-Based Fibers: Fabrication, Characterization and Application. 1

4

226 Large-Area and Clean Graphene Transfer on Gold-Nanopyramid-Structured Substrates: Implications for Surface-Enhanced Raman Scattering Detection. **2022**, 5, 3878-3888

0

225 Tilings with Nonflat Squares: A Characterization. 1

224 Graphene-Coated Iron Nitride Streptavidin Magnetic Beads: Preparation and Application in SARS-CoV-2 Enrichment. **2022**, 8, 41

223 Effect of graphene nanoplatelets on the mechanical properties and cutting performance of alumina nanocomposite ceramic tools prepared using the SPS-HF dual sintering method. **2022**,

0

222 Enhanced electrochemical sensing performance for trace Hg(II) by high activity of Co on CoO-NP/N-RGO surface.. **2022**, 1200, 339607

1

221 Quantitative Strain and Topography Mapping of 2D Materials Using Nanobeam Electron Diffraction.. **2022**, 1-15

220 Upgrading recalcitrant lignocellulosic biomass hydrolysis by immobilized cellulolytic enzymeBased nanobiocatalytic systems: a review. 1

0

219 Mechanical, Elastic, and Adhesive Properties of Two-Dimensional Materials: From Straining Techniques to State-of-the-Art Local Probe Measurements. 2102220

3

218 Intrinsic strengthening and toughening in hexagonal boron nitride by ripples. **2022**, 229, 117845

1

217 Tribological properties and self-lubrication mechanism of in-situ grown graphene reinforced nickel matrix composites in ambient air. **2022**, 496-497, 204308

2

216 Transparency of graphene membranes to eV-scale electrons. **2022**, 1031, 166521

215 A review on Graphene/GNPs/GO modified asphalt. **2022**, 330, 127222

2

214 Path-integral Monte Carlo simulations on the thermodynamic properties of single-layer hexagonal boron nitride. **2022**, 31, e00660

0

213 From GO to rGO: An analysis of the progressive rippling induced by energetic ion irradiation. **2022**, 586, 152789

1

212 Graphene fabricated by different approaches for supercapacitors with ultrahigh volumetric capacitance. **2022**, 50, 104281

1

211 Dynamic Polarization Manipulation in Graphene-Based Metasurface. **2021**,

1

210	Phonon-Fluid Coupling Enhanced Water Desalination in Flexible Two-Dimensional Porous Membranes.. <b>2021</b> ,	3
209	Near-field thermal radiation of germanium selenide single layer. <b>2021</b> , 5,	1
208	Effective Friction and Mobility of Graphene Nanoparticles (Nanoribbons and Nanotubes) on a Flat Multilayer h-BN Substrate. <b>2021</b> , 133, 754-765	0
207	Soft Bioelectronics Based on Nanomaterials.. <b>2021</b> ,	11
206	Towards Repeatable, Scalable Graphene Integrated Micro-Nano Electromechanical Systems (MEMS/NEMS).. <b>2021</b> , 13,	0
205	Annealing-based manipulation of thermal phonon transport from light-emitting diodes to graphene. <b>2021</b> , 130, 244303	1
204	Comparative implementation of graphene sheet insulation heat effect in dry-type transformers. <b>2021</b> , 26, 101131	0
203	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
202	Cellulosic graphene: growth, characterization, and fabrication toward ambient humidity sensing. 1-9	
201	Structure-property relations of three-dimensional nanoporous template-based graphene foams. <b>2022</b> , 101737	1
200	Mechanochemical Molecular Migration on Graphene.. <b>2022</b> ,	3
199	The Magnetic Genome of Two-Dimensional van der Waals Materials.. <b>2022</b> ,	10
198	Dynamic and ðtuation properties of a graphene disk levitated by a diamagnetic force in air.	
197	Preparation, Bandgap Engineering, and Performance Control of Graphene Nanoribbons.	3
196	Novel Electrochemical Sensor for the Determination of Bisphenol A Using a Molybdenum(IV) Sulfide Quantum Dots Polysodium Styrene Sulfonate Functionalized Reduced Graphene Oxide Modified Glassy Carbon Electrode (GCE) by Differential Pulse Voltammetry (DPV). 1-17	
195	Novel Graphene Allocating Carbon-Copper Ratio Method for The Rail Vehicle Propulsion System Ground Carbon Brush. <b>2022</b> , 1-1	0
194	Recent Advances in Microfluidic Production of Functional Microcapsules by Multiple-Emulsion Templating.	3
193	GrapheneTechnology and integration with semiconductor electronics. <b>2022</b> , 1-40	

192	Engineering of Chemical Vapor Deposition Graphene Layers: Growth, Characterization, and Properties. 2202584	1
191	Martingale-induced local invariance in progressive quenching.. <b>2022</b> , 105, 044146	
190	Ab Initio Study of the Interaction of a Graphene Surface Decorated with a Metal-Doped C with Carbon Monoxide, Carbon Dioxide, Methane, and Ozone.. <b>2022</b> , 23,	1
189	Dynamic penetration behaviors of single/multi-layer graphene using nanoprojectile under hypervelocity impact.. <b>2022</b> , 12, 7440	
188	Multiterpyridyl Ligand/Cadmium(II) Coordination Polymer Nanosheets for Recoverable Luminescent Sensors.	
187	Curved-space Dirac description of elastically deformed monolayer graphene is generally incorrect. <b>2022</b> , 105,	0
186	Superhydrophobic graphene/hydrophobic polymer coating on a microarc oxidized metal surface. 1	0
185	The kinetics of crack propagation in CVD graphene film. <b>2022</b> , 126, 109056	
184	Approximately 1 $\mu$ m-sized artificial tunnels in wrinkled graphene-graphene oxide composite membranes for efficient dye/dye separation and dye desalination. <b>2022</b> , 445, 136753	1
183	Graphene/Rh-doped SnO <sub>2</sub> nanocomposites synthesized by electrochemical exfoliation and flame spray pyrolysis for H <sub>2</sub> S sensing. <b>2022</b> , 165431	0
182	The JKR Formalism in Applications to Problems of Adhesive Contact. <b>2022</b> , 243-287	1
181	Array of Graphene Variable Capacitors on 100 mm Silicon Wafers for Vibration-Based Applications. <b>2022</b> , 12, 533	0
180	Mechanics and Strategies for Wrinkling Suppression: A Review. <b>2022</b> , 8,	0
179	Reverse strain-induced snake states in graphene nanoribbons. <b>2022</b> , 105,	0
178	Synthesis of AAB-Stacked Single-Crystal Graphene/hBN/Graphene Trilayer van der Waals Heterostructures by In Situ CVD. 2201324	0
177	Emergent space-time supersymmetry at disordered quantum critical points. <b>2022</b> , 105,	0
176	Dynamic scaling of out-of-plane fluctuations in freestanding graphene. <b>2022</b> , 105,	0
175	Uncovering material deformations via machine learning combined with four-dimensional scanning transmission electron microscopy. <b>2022</b> , 8,	1

174	The Development Trend of Graphene Derivatives.	2
173	Evaluation of TEM methods for their signature of the number of layers in mono- and few-layer TMDs as exemplified by MoS <sub>2</sub> and MoTe <sub>2</sub> . <b>2022</b> , 103303	1
172	Light-responsive shape memory polymer composites. <b>2022</b> , 173, 111314	2
171	Reliable and broad-range layer identification of Au-assisted exfoliated large area MoS <sub>2</sub> and WS <sub>2</sub> using reflection spectroscopic fingerprints.	1
170	Laser-Based Growth and Treatment of Graphene for Advanced Photo- and Electro-Related Device Applications. 2203164	1
169	Displacement Vorticity as Origin of Moiré Potentials in Twisted WSe <sub>2</sub> /MoSe <sub>2</sub> Bilayers.	
168	Creation of N <sub>2</sub> -Phobic Morphology of 3d Graphene/Polymer Monolithic Structures for Outstanding Co <sub>2</sub> /N <sub>2</sub> Selectivity.	
167	Gram-Scale Preparation of Black Phosphorus Nanosheets via Shock-Induced Phase Transformation.	1
166	Graphene-based polymer composites in corrosion protection applications. <b>2022</b> , 559-581	
165	Graphene-based Optically Transparent and Dynamically Tunable Metasurface with Anisotropic Modulations. <b>2022</b> ,	
164	Engineering van der Waals Materials for Advanced Metaphotonics.	2
163	Graphene Oxide-Sensitized Surface Plasmon Resonance Biosensor of Porcine Reproductive and Respiratory Syndrome Virus. <b>2022</b> , 27, 3942	
162	Exploring Interface Through Synchrotron Radiation Characterization Techniques: A Graphene Case. 2202469	0
161	Quantum Systems for Enhanced High Energy Particle Physics Detectors. 10,	1
160	Oxygen-Induced Dissociation of a Single Water Molecule in Confined 2-D Layers: A Semiempirical study.	0
159	Nanoarchitectonics of graphene based sensors for food safety monitoring. 1-29	0
158	Quantum Revivals in Curved Graphene Nanoflakes. <b>2022</b> , 12, 1953	0
157	Chemical Vapor-Deposited Graphene on Ultraflat Copper Foils for van der Waals Hetero-Assembly.	



- 156 Rectifying Performance Induced by B/P, B/As, and B/Sb Co-doped Armchair Graphene Nanoribbons P-N Junction: A DFT Investigation. **2022**, 78, 13-26
- 155 Effect of heat treatment on sensing performance of ZIF-67@GO for the detection of copper ions. **2022**, 649, 129500
- 154 A novel two-dimensional main group metal organic framework Ga<sub>3</sub>C<sub>6</sub>N<sub>6</sub> as a promising anode material for Li/Na-Ion batteries. **2022**, 599, 153958
- 153 Microstructures and mechanical properties of carbon-added Ti composites fabricated by laser powder bed fusion or spark plasma sintering. **2022**, 72, 314-320
- 152 Polarization-Resolved and Helicity-Resolved Raman Intensity of Monolayer and Bilayer HgSe. **2022**, 126, 11219-11228
- 151 Suspended Graphene Membranes to Control Au Nucleation and Growth.
- 150 Effects of graphene dispersion in hot pressing UO<sub>2</sub>-graphene nanosheet ceramic matrix composites. **2022**,
- 149 Multi-scale electronics transport properties in non-ideal CVD graphene sheet. **2022**, 12,
- 148 Functionalization of graphene with nitrogen-based groups for water purification via adsorption: A review. **2022**, 48, 102873
- 147 Synthesis of biowaste derived ultra-light spongy material for the studies of effective removal of oil, organic solvent and selective dye pollutant from waste stream. **2022**, 43, 102426
- 146 Disentangling Exciton Linewidth Broadening Factors in Transition Metal Dichalcogenide Monolayer with Electron Energy Loss Spectroscopy. **2022**, 28, 1778-1779
- 145 Substrate influence on transition metal dichalcogenide monolayer exciton absorption linewidth broadening. **2022**, 6,
- 144 Displacement field splitting of defective hexagonal lattices. **2022**, 106,
- 143 Soldering of copper using graphene-phosphoric acid gel. **2020**, 30, 60-67
- 142 Structural studies of inorganic materials by electron crystallography. **2022**,
- 141 Twisting and Rippling of a Two-Dimensional Kagome Lattice: Silica on Au(111). 1660-1667
- 140 Distribution of ripples in graphene membranes. **2022**, 106,
- 139 On the Origin of Nonclassical Ripples in Draped Graphene Nanosheets: Implications for Straintronics. **2022**, 5, 10829-10838

138	Structure of fluctuating thin sheets under random forcing. <b>2022</b> , 4,	0
137	Dzyaloshinskii-Moriya interaction and magnetic skyrmions induced by curvature. <b>2022</b> , 106,	1
136	Ion-Induced Surface Charge Dynamics in Freestanding Monolayers of Graphene and MoS2 Probed by the Emission of Electrons. <b>2022</b> , 129,	1
135	Carbon-Related Materials: Graphene and Carbon Nanotubes in Semiconductor Applications and Design. <b>2022</b> , 13, 1257	2
134	Eco-Friendly Synthesis and Characterization of Double-Crossed Link 3D Graphene Oxide Functionalized With Chitosan for Adsorption of Sulfamethazine From Aqueous Solution: Experimental and DFT Calculations. 10,	0
133	Enhanced visible-light photocatalytic activity of rGO-ZnO composite thin films prepared by SILAR method. 1-16	1
132	Semiconductive vertical graphene nanoribbons self-assembled on diamond (100) surface by oxidation: a DFT study. <b>2022</b> , 154646	
131	Antifouling Performance of Carbon-Based Coatings for Marine Applications: A Systematic Review. <b>2022</b> , 11, 1102	0
130	Facile synthesis of amine-functionalized three-dimensional graphene composites for CO2 capture. <b>2022</b> , 33, 102256	
129	Electrodeposition-based fabrication of graphene/copper composites with excellent overall properties. <b>2022</b> , 924, 166610	1
128	The dual role of interlayer crosslinks leads to an abnormal behavior of interlayer thermal resistance in multilayer graphene. <b>2023</b> , 183, 107871	2
127	Nanocomposite Hydrogels Containing Few-Layer Graphene Sheets Prepared through Noncovalent Exfoliation Show Improved Mechanical Properties. <b>2022</b> , 12, 3129	0
126	The spin-12 particle on a rotating curved surface in time-varying fields. <b>2022</b> , 42, 105974	0
125	Synergistic effect of Black cumin extract and zinc cations on the mild steel corrosion resistance improvement in NaCl solution; Surface and electrochemical explorations. <b>2022</b> , 654, 130153	0
124	All-surface-state potassium storage enabled ultra-stable potassium cathode. <b>2022</b> , 53, 148-155	2
123	Rapid microwave-assisted synthesis of Ni2P nanosheets from black phosphorus. <b>2022</b> , 58, 10945-10948	0
122	Chemical properties of graphene. <b>2022</b> , 43-67	0
121	Recent advances in novel graphene: new horizons in renewable energy storage technologies. <b>2022</b> , 10, 11472-11531	1

120	Thesis Outline. <b>2022</b> , 1-3	0
119	Using Single-Crystal Graphene to Form Arrays of Nanocapsules Enabling the Observation of Light Elements in Liquid Cell Transmission Electron Microscopy. <b>2022</b> , 22, 7423-7431	0
118	Investigating structural, electronic, magnetic, and optical properties of Co-doped and Co-X (X = Fe, Mn) co-doped MoS <sub>2</sub> for optoelectronic applications. <b>2022</b> , 28,	0
117	Graphene: A Path-Breaking Discovery for Energy Storage and Sustainability. <b>2022</b> , 15, 6241	0
116	Nickel-encapsulated graphene reinforced aluminum matrix composites with increased mechanical strength and electrical conductivity.	0
115	Enhanced-performance self-powered photodetector based on multi-layer MoS <sub>2</sub> sandwiched between two asymmetric graphene contacts.	0
114	Topological and Quantum Stability of Low-Dimensional Crystalline Lattices with Multiple Nonequivalent Sublattices.	2
113	Electronic materials with nanoscale curved geometries. <b>2022</b> , 5, 551-563	2
112	Biological reduction of graphene oxide using Citrus sinensis L. extract and its nano-structural photocatalytic - antibacterial performances. <b>2022</b> , 13, 035016	0
111	1-aza-18-crown-6 ether tailored graphene oxide for Cs(I) removal from wastewater. <b>2022</b> ,	0
110	Graphene oxide membranes with short-range pore channels toward ultrafast water transport via Bay etching. <b>2022</b> , 155150	0
109	Recent major advances and challenges in the emerging Graphene based nanomaterials in electrocatalytic Fuel Cell technology.	0
108	Two dimensional monolayer TetraHex-CX <sub>2</sub> (X = N, P, As, Sb) with superior electronic, mechanic and optical properties.	0
107	Novel nanostructures suspended in graphene vacancies, edges and holes.	0
106	Microstructure, Mechanical and Electrical Properties of Hybrid Copper Matrix Composites with Fe Microspheres and rGO Nanosheets. <b>2022</b> , 27, 6518	0
105	Synergistically Improving Mechanical and Interfacial Properties of Epoxy Resin and CFRP Composites by Introducing Graphene Oxide. <b>2022</b> , 2022, 1-14	0
104	Corrugations in Free-Standing Graphene. <b>2022</b> , 12, 3562	0
103	Electron Beam as Straightener to De-Wrinkle Large 2D Black Phosphorus Flake: An In Situ TEM Monitoring. 2201320	0

102	Two-dimensional multigap superconductivity in bulk 2H-TaSe <sub>2</sub> . <b>2022</b> , 106,	0
101	Synergistic effect of graphene and Si <sub>3</sub> N <sub>4</sub> whisker enables Si <sub>3</sub> N <sub>4</sub> ceramic composites to obtain ultra-low friction coefficient. <b>2022</b> , 108045	0
100	Nanoscale insights into the structure of solution-processed graphene by x-ray scattering. <b>2023</b> , 10, 015006	0
99	Nanoscale mechanics of metal-coated graphene nanocomposite powders. <b>2022</b> , 33, 104731	0
98	Study on Thermal Conduction Mechanism of Graphene-Like Carbon Nitride Structure (C <sub>3</sub> N). <b>2023</b> , 0	0
97	Green reduction of graphene oxide as a substitute of acidic reducing agents for supercapacitor applications. <b>2023</b> , 287, 116128	2
96	Transfer-Free CVD Growth of High-Quality Wafer-Scale Graphene at 300 °C for Device Mass Fabrication.	0
95	Vibrational instabilities in multilayer graphene and graphite: Effects of strain and number of layers. <b>2022</b> , 106,	0
94	Anisotropic mechanical response of a 2D covalently bound fullerene lattice. <b>2022</b> ,	1
93	Electronic structure, vibrational properties, and optical spectra of two- and three-dimensional hexagonal InSe: Layer-dependent ab initio calculations. <b>2022</b> , 6,	0
92	Hierarchically Porous Graphene Aerogels with Abundant Oxygenated Groups for High-Energy-Density Supercapacitors.	1
91	Elastic properties of moiré lattices in epitaxial two-dimensional materials. <b>2022</b> , 106,	0
90	Carbonous-Based Optoelectronic Devices. <b>2023</b> , 101-125	0
89	Room-Temperature Semiconductor Gas Sensors: Challenges and Opportunities.	1
88	Friction, mobility, and thermophoresis of carbon nanoparticles on a graphene sheet. <b>2022</b> , 106,	0
87	High Efficient Solar Cell Based on Heterostructure Constructed by Graphene and GaAs Quantum Wells. 2204058	0
86	Morphological and optical investigation of 2D material-based ternary nanocomposite: Bi <sub>2</sub> O <sub>3</sub> /MgO/GO synthesized by a co-precipitation technique. <b>2022</b> , 12, 32986-32993	0
85	Topological defects and nanoholes in graphene oxide/hexagonal boron nitride heterostructures: stress buildup and accumulation. <b>2022</b> , 12, 33988-34005	0

- 84 Microfluidic synthesis of graphene oxide/MnO<sub>2</sub>-incorporated self-propelling micromotors for organic dye removal. ○
- 83 Microstructures and Mechanical Properties of Carbon-Added Ti Composites Fabricated by Laser Powder Bed Fusion or Spark Plasma Sintering. **2023**, 64, 54-60 ○
- 82 Investigation of cation-assisted, chemically and thermally enhanced nitrogen-doped graphene nanofluid application as an efficient micro-emulsifier from EOR perspective. **2023**, 335, 127033 ○
- 81 RKKY interaction on curved surfaces: Different behavior of Dirac and Schrödinger carriers as interaction-mediating particles. **2022**, 106, ○
- 80 The VdW Heterostructure Interface Physics. **2022**, 125-156 ○
- 79 Surface and Physical Properties Modifications of Electron Beam-Irradiated Monolayer MoS<sub>2</sub>-Au Heterointerface at Nanoscale. ○
- 78 Effect of external pressure on the hydrogen storage capacity of a graphene flake: molecular dynamics. **2022**, 12, 445-450 1
- 77 Superamphiphobic coatings based on graphene oxide with abrasion resistant property by a simple method. **2022**, 2383, 012138 ○
- 76 Displacement vorticity as the origin of moiré potentials in twisted WSe<sub>2</sub>/MoSe<sub>2</sub> bilayers. **2022**, ○
- 75 Graphene-Based Tunable Metamaterial-FSS RAS. **2022**, 109-147 ○
- 74 Buckling in a rotationally invariant spin-elastic model. **2023**, 107, ○
- 73 Sulfonated polythiophene-interfaced graphene for water-redispersible graphene powder with high conductivity and electrocatalytic activity. ○
- 72 Water Flow in Graphene Nanochannels driven by Imposed Thermal Gradients: The Role of Flexural Phonons. ○
- 71 On the Road to the Frontiers of Lithium-ion Batteries: A Review and Outlook of Graphene Anodes. 2210734 ○
- 70 Ultralight, superelastic pure graphene aerogel for piezoresistive sensing application. **2023**, 58, 850-863 ○
- 69 Mechanochemical Molecular Motion Using Noncovalent Interactions on Graphene and Its Application to Tailoring the Adsorption Energetics. 574-579 ○
- 68 Kirigami-Inspired Thermal Regulator. **2023**, 19, ○
- 67 Efficient One-Pot Solvothermal Synthesis and Characterization of Zirconia Nanoparticle-Decorated Reduced Graphene Oxide Nanocomposites: Evaluation of Their Enhanced Anticancer Activity toward Human Cancer Cell Lines. **2023**, 8, 2406-2420 ○

- 66 Bio-inspired jellyfish microparticles from microfluidics. ○
- 65 Preservable superhydrophilicity of thermally cured graphene-nanoplatelets/epoxy nanocomposite coatings. **2023**, 252, 110500 ○
- 64 Curvature effect on graphene-based Co/Ni single-atom catalysts. **2023**, 615, 156357 ○
- 63 Gaussian Curvature Effects on Graphene Quantum Dots. **2023**, 13, 95 ○
- 62 Carboxy-thioether-thiolato titanium-graphene oxide nanocomposite as drug delivery system for targeted cancer therapy: Design, characterization, bovine serum albumin binding study, and biological evaluation. ○
- 61 Graphene-Fundamentals. **2023**, 1-30 ○
- 60 Multiscale modeling of supramolecular assemblies of 2D materials. **2023**, 389-423 ○
- 59 Low-Temperature Direct Growth of Amorphous Boron Nitride Films for High-Performance Nanoelectronic Device Applications. **2023**, 15, 7274-7281 ○
- 58 Localized and quasi-localized energy levels in the electron spectrum of graphene with isolated boron and nitrogen substitutions. **2023**, 49, 30-37 ○
- 57 Fullerene: Fundamentals and state-of-the-art. **2023**, 1-19 ○
- 56 Molecular Mechanics of Disordered Solids. ○
- 55 Real-Space Observation of Ripple-Induced Symmetry Crossover in Ultrathin MnPS<sub>3</sub>. ○
- 54 Regulatory and toxicological perspectives of carbon nanomaterials. **2023**, 483-503 ○
- 53 Graphene in Field Effect Transistor-Based Biosensors. **2023**, 49-78 ○
- 52 Graphene Oxide Based Nanofiltration Membrane for Wastewater Treatment. **2023**, 55-67 ○
- 51 Room Temperature in Situ Fabrication of Ultrathin Undulating Layered Hydroxide Salt Membranes for Efficient H<sub>2</sub>/Co<sub>2</sub> Separation. ○
- 50 Dynamics of fluctuations and thermal buckling in graphene from a phase-field crystal model. **2023**, 107, ○
- 49 A novel approach to fabricate layered RGO/Cu composites with excellent mechanical properties. **2023**, 944, 169101 ○

- 48 Investigation electronic and optical properties of PVA-NiO-Ag nanocomposite utilizing density function theory. **2023**, ○
- 47 Impact of Physical and Chemical Modification of the Surface of Porous Al<sub>2</sub>O<sub>3</sub> Ceramic Membranes on the Quality of Transferred HSMG□ and CVD Graphene. **2023**, 13, 319 ○
- 46 Investigating Electromechanical Buckling Response of FG-GPL-Reinforced Piezoelectric Doubly Curved Shallow Shells Embedded in an Elastic Substrate. **2023**, 16, 2975 ○
- 45 Statistical properties of the two dimensional Feshbach□illars oscillator (FVO) in the rotating cosmic string spacetime. **2023**, 452, 169302 ○
- 44 A concise review on GO, rGO and metal oxide/rGO composites: Fabrication and their supercapacitor and catalytic applications. **2023**, 947, 169588 ○
- 43 Spatial dimension of atoms arrangement as a function of temperature: A fractons' functional. **2023**, 473, 128816 ○
- 42 Synergetic reinforcing effect of graphene oxide and nanosilver on carboxymethyl cellulose/sodium alginate nanocomposite films: Assessment of physicochemical and antibacterial properties. **2023**, 239, 124185 ○
- 41 Cavities in multilayer homo- and heterostructures. **2023**, 115735 ○
- 40 Incommensurability and negative thermal expansion of single layer hexagonal boron nitride. **2023**, 624, 157156 ○
- 39 Monoclinic C12: A new superhard carbon allotrope. **2023**, 653, 414696 ○
- 38 Geometric, electronic and transport properties of bulged graphene: A theoretical study. **2023**, 158, 084702 ○
- 37 Possibilities for the Flow of Water and Blood through a Graphene Layer in a Geometry Analogous to Human Arterioles: An Observational Study. **2023**, 13, 2000 ○
- 36 Dynamics of fluctuating thin sheets under random forcing. **2023**, 107, ○
- 35 On shape-induced interfacial interactions in graphene/polyaniline composite produced through in situ polymerization approach. **2023**, 144, 104735 ○
- 34 First-principles study of the structural and electronic properties of tetragonal ZrOX (X = S, Se, and Te) monolayers and their vdW heterostructures for applications in optoelectronics and photocatalysis. **2023**, 158, 094708 ○
- 33 In-situ atomic level observation of the strain response of graphene lattice. **2023**, 13, ○
- 32 Study of adsorption energy for toxic gases (NH<sub>3</sub>, Br<sub>2</sub>) in pure and sulfur doped graphene nano-ribbon. **2023**, ○
- 31 Revealing 3D Ripple Structure and Its Dynamics in Freestanding Monolayer MoSe<sub>2</sub> by Single-Frame 2D Atomic Image Reconstruction. **2023**, 23, 1298-1305 ○

- 30 Kohlenstoffgruppe: Elemente der vierten Hauptgruppe. **2022**, 1-66 ○
- 29 Polarization-independent enhanced and tunable Goos-Hänchen shift in a metal-dielectric grating structure with monolayer graphene. **2023**, 98, 035521 ○
- 28 Design and realization of interface strengthening to GNPs/YSZ nanocomposite coating. **2023**, ○
- 27 Carbohydrate polymer derived nanocomposites: design, features and potential for biomedical applications. **2023**, 62, 582-603 ○
- 26 The thermal stability of carbon materials in the air: Quantitative structural investigation of thermal stability of carbon materials in air. **2023**, 206, 211-225 ○
- 25 ??????????????????. **2023**, ○
- 24 Graphene-enabled metasurface with independent amplitude and frequency controls in orthogonal polarization channels. **2023**, 206, 260-267 ○
- 23 Three-dimensional graphene/carbon nanotube electromagnetic shielding composite material based on melamine resin foam template. ○
- 22 The Relatedness Between Graphene Oxide Lateral Size and the Mechanical Properties of Calcium Alginate Composite Fibers. **2023**, 24, 671-679 ○
- 21 All-optical control of topological valley transport in graphene metasurfaces. **2023**, 31, 10401 ○
- 20 Optimization of Spatial Arrangement and Optical Nonlinearity of Chalcone Crystals by Halogen Substituted Donor Groups. **2023**, 23, 2583-2592 ○
- 19 Iridium oxide nanoribbons with metastable monoclinic phase for highly efficient electrocatalytic oxygen evolution. **2023**, 14, ○
- 18 Alumina ceramic tool material with enhanced properties through the addition of bionic prepared nano SiC@graphene. **2023**, ○
- 17 Free-Standing Two-Dimensional Crystals Formed from Self-Assembled Ionic Liquids. **2023**, 14, 2744-2749 ○
- 16 Coexistence of reconstructed and unreconstructed structures in the structural transition regime of twisted bilayer graphene. **2023**, 107, ○
- 15 Influence of graphene oxide on rheology, mechanical, dielectric, and triboelectric properties of poly(vinyl alcohol) nanocomposite hydrogels prepared via a facile one step process. ○
- 14 Electron-Phonon Superconductivity in Boron-Based Chalcogenide (X= S, Se) Monolayers. 2200539 ○
- 13 Thermodynamics beyond isolated Dirac points: A (possible) phase transition when coalescing. **2023**, 142, 16003 ○



- 12 Fracture Resistance Analysis of CAD/CAM Interim Fixed Prosthodontic Materials: PMMA, Graphene, Acetal Resin and Polysulfone. **2023**, 15, 1761
- 11 Room-temperature in situ fabrication of ultrathin undulating layered hydroxide salt membranes for efficient H<sub>2</sub>/CO<sub>2</sub> separation. **2023**, 677, 121631
- 10 Direct characterization of shear phonons in layered materials by mechano-Raman spectroscopy.
- 9 Effect of Annealing on Graphene/PVDF Nanocomposites. **2023**, 8, 13876-13883
- 8 Selective detection of Cd (II) and Cr (VI) ions using rGO functionalized metal doped SnO<sub>2</sub> nanocomposites. **2023**, 190, 108728
- 7 In Silico Investigation on the Selective Nanotoxicity of Two-Dimensional Materials to Hen Egg White Lysozyme Protein.
- 6 Deterministically self-assembled 2D materials and electronics. **2023**,
- 5 Effect of Graphite Nanoplatelet Size and Dispersion on the Thermal and Mechanical Properties of Epoxy-Based Nanocomposites. **2023**, 13, 1328
- 4 Rational and key strategies toward enhancing the performance of graphene/silicon solar cells.
- 3 Fe<sub>4</sub> cluster as the smallest 3D Fe cluster with unique quantum magnetic levitation effect on graphene. **2023**, 157315
- 2 Stearic-Acid-Modified Graphene Oxide with High Dispersion Stability and Good Water-Lubricating Property.
- 1 Microbial reduction of graphene oxide and its application in microbial fuel cells and biophotovoltaics. **2023**, 17,