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## Two-dimensional atomic crystals

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1767	Surface morphology and characterization of thin graphene films on SiC vicinal substrate. <b>2009</b> , 79,	68
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1765	Electrocatalytically Active Graphene-Platinum Nanocomposites. Role of 2-D Carbon Support in PEM Fuel Cells. <b>2009</b> , 113, 7990-7995	846

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1760	Growth of semiconducting graphene on palladium. <b>2009</b> , 9, 3985-90	283
1759	Gating of single layer graphene using DNA. <b>2009</b> ,	1
1758	The rise of graphene. <b>2009</b> , 11-19	340
1757	Quantum confined systems. 28-115	
1756	Observation of diode-like characteristics in planar-type structures of graphite flakes. <b>2009</b> , 150, 022039	2
1755	Aberration-corrected electron microscopy processing and imaging of novel organic and inorganic nanostructures. <b>2010</b> , 241, 012100	
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1752	Engineered nanowires, carbon nanotubes and graphene for sensors, actuators and electronics. <b>2010</b> ,	
1751	General View of Graphenes. <b>2010</b> , 53, 61-65	
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1746	Topological Berry phase and semiclassical quantization of cyclotron orbits for two dimensional electrons in coupled band models. <b>2010</b> , 77, 351-362	121
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1735	Graphene-based materials in electrochemistry. <b>2010</b> , 39, 3157-80	1200
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1727	Transparent, flexible conducting hybrid multilayer thin films of multiwalled carbon nanotubes with graphene nanosheets. <b>2010</b> , 4, 3861-8	285
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1724	Fabrication, mechanical properties, and biocompatibility of graphene-reinforced chitosan composites. <b>2010</b> , 11, 2345-51	479
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1720	Anomalous lattice vibrations of single- and few-layer MoS <sub>2</sub> . <b>2010</b> , 4, 2695-700	3330
1719	Exfoliation and chemical modification using microwave irradiation affording highly functionalized graphene. <b>2010</b> , 4, 7499-507	131
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1708	Snap-Through Instability of Graphene on Substrates. <b>2009</b> , 5, 169-173	39
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1706	High-Field Electronic Properties of Graphene. <b>2010</b> , 159, 238-244	4
1705	Probing mechanical properties of graphene with Raman spectroscopy. <b>2010</b> , 45, 5135-5149	167
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1701	Thinnest two-dimensional nanomaterial-graphene for solar energy. <b>2010</b> , 3, 782-96	185
1700	A Controllable Self-Assembly Method for Large-Scale Synthesis of Graphene Sponges and Free-Standing Graphene Films. <b>2010</b> , 20, 1930-1936	235
1699	Chemically derived graphene oxide: towards large-area thin-film electronics and optoelectronics. <b>2010</b> , 22, 2392-415	1818
1698	Sonication-assisted fabrication and post-synthetic modifications of graphene-like materials. <b>2010</b> , 16, 5246-59	115
1697	Rapid and direct conversion of graphite crystals into high-yielding, good-quality graphene by supercritical fluid exfoliation. <b>2010</b> , 16, 6488-94	158
1696	Kohlenstoffnanomaterialien für Biosensoren: Nanoröhren oder Graphen – Was eignet sich besser?. <b>2010</b> , 122, 2160-2185	51
1695	Nanostrukturierte Kohlenstoffmaterialien aus molekularen Vorstufen. <b>2010</b> , 122, 6644-6664	27
1694	MoS <sub>2</sub> and WS <sub>2</sub> Analogues of Graphene. <b>2010</b> , 122, 4153-4156	433
1693	Interfacial Engineering by Proteins: Exfoliation and Functionalization of Graphene by Hydrophobins. <b>2010</b> , 122, 5066-5069	23

1692	Ein Konzept und seine Umsetzung: Graphen gestern, heute und morgen. <b>2010</b> , 122, 9524-9532	53
1691	Carbon nanomaterials in biosensors: should you use nanotubes or graphene?. <b>2010</b> , 49, 2114-38	1188
1690	Nanostructured carbonaceous materials from molecular precursors. <b>2010</b> , 49, 6496-515	126
1689	MoS2 and WS2 analogues of graphene. <b>2010</b> , 49, 4059-62	1250
1688	Interfacial engineering by proteins: exfoliation and functionalization of graphene by hydrophobins. <b>2010</b> , 49, 4946-9	146
1687	From conception to realization: an historial account of graphene and some perspectives for its future. <b>2010</b> , 49, 9336-44	621
1686	Janus nanomembranes: a generic platform for chemistry in two dimensions. <b>2010</b> , 49, 8493-7	80
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1684	Characteristics of polymers that stabilize colloids for the production of graphene from graphene oxide. <b>2010</b> , 349, 63-9	23
1683	Graphene electrodes for n-type organic field-effect transistors. <b>2010</b> , 87, 1120-1122	7
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1679	Influence of the growth conditions of epitaxial graphene on the film topography and the electron transport properties. <b>2010</b> , 42, 687-690	13
1678	AC transport properties of single and bilayer graphene. <b>2010</b> , 42, 755-758	8
1677	Local gating of decoupled graphene monolayers. <b>2010</b> , 42, 695-698	3
1676	Biased driven resonant tunneling through a double barrier graphene based structure. <b>2010</b> , 42, 1781-1786	21
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1672	Reduction of functionalized graphite oxides by trioctylphosphine in non-polar organic solvents. <b>2010</b> , 48, 2282-2289	102
1671	Synthesis and characterization of two dimensional graphene lamellae based PAn nanocomposites. <b>2010</b> , 519, 1059-1065	8
1670	Highly sensitive and selective detection of NO <sub>2</sub> using epitaxial graphene on 6H-SiC. <b>2010</b> , 150, 301-307	122
1669	Effect of a gap opening on the conductance of graphene superlattices. <b>2010</b> , 150, 655-659	16
1668	Geometry dependence of persistent currents in diamond-like graphene rings. <b>2010</b> , 150, 1196-1199	12
1667	First-principles studies of HF molecule adsorption on intrinsic graphene and Al-doped graphene. <b>2010</b> , 150, 1906-1910	75
1666	Free-standing graphene by scanning transmission electron microscopy. <b>2010</b> , 110, 1460-4	14
1665	Density functional theory prediction for oxidation and exfoliation of graphite to graphene. <b>2010</b> , 256, 7596-7599	14
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1663	EPW: A program for calculating the electron-phonon coupling using maximally localized Wannier functions. <b>2010</b> , 181, 2140-2148	225
1662	The effect of heat treatment on formation of graphene thin films from graphene oxide nanosheets. <b>2010</b> , 48, 509-519	453
1661	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
1660	Porphyrin counter anion in imidazolium-modified graphene-oxide. <b>2010</b> , 48, 854-860	91
1659	Preparation and electrical properties of graphene nanosheet/Al <sub>2</sub> O <sub>3</sub> composites. <b>2010</b> , 48, 1743-1749	283
1658	Production, properties and potential of graphene. <b>2010</b> , 48, 2127-2150	1240
1657	Surface chemistry of Ni induced graphite formation on the 6H-SiC (0001) surface and its implications for graphene synthesis. <b>2010</b> , 48, 1999-2003	21

1656	Graphene nanoribbons produced by the oxidative unzipping of single-wall carbon nanotubes. <b>2010</b> , 48, 2596-2602	110
1655	Improvement of mechanical properties of graphene oxide/poly(allylamine) composites by chemical crosslinking. <b>2010</b> , 48, 3376-3381	115
1654	Bulk growth of mono- to few-layer graphene on nickel particles by chemical vapor deposition from methane. <b>2010</b> , 48, 3543-3550	83
1653	Structural and electrochemical modification of graphitic carbons by vapor-phase iodine-incorporation. <b>2010</b> , 48, 4178-4189	13
1652	Effects of functional groups on the mechanical and wrinkling properties of graphene sheets. <b>2010</b> , 48, 4315-4322	181
1651	The large-scale production of graphene flakes using magnetically-enhanced arc discharge between carbon electrodes. <b>2010</b> , 48, 4570-4574	86
1650	Edge reconstructions induce magnetic and metallic behavior in zigzag graphene nanoribbons. <b>2010</b> , 48, 4409-4413	43
1649	Direct reduction of graphene oxide films into highly conductive and flexible graphene films by hydrohalic acids. <b>2010</b> , 48, 4466-4474	1305
1648	Tubular carbon nanostructures produced by tunneling of cobalt nanoparticles in carbon fibers. <b>2010</b> , 48, 4574-4577	4
1647	Biological modification of carbon nanowalls with DNA strands and hybridization experiments with complementary and mismatched DNA. <b>2010</b> , 485, 196-201	13
1646	Evolution of graphene mediated magnetic coupling between Fe-chains. <b>2010</b> , 492, 127-130	12
1645	Mn3O4 nanoparticles embedded into graphene nanosheets: Preparation, characterization, and electrochemical properties for supercapacitors. <b>2010</b> , 55, 6812-6817	215
1644	Graphene single-electron transistors. <b>2010</b> , 13, 44-50	99
1643	Investigation of graphene/SiC interface by nanoscale electrical characterization. <b>2010</b> , 247, 912-915	9
1642	Automated preparation of high-quality epitaxial graphene on 6H-SiC(0001). <b>2010</b> , 247, 2924-2926	52
1641	Optical spectroscopy of bilayer graphene. <b>2010</b> , 247, 2931-2934	3
1640	Substrate effect on thickness-dependent friction on graphene. <b>2010</b> , 247, 2909-2914	161
1639	Tearing graphene sheets from adhesive substrates produces tapered nanoribbons. <b>2010</b> , 6, 1108-16	144

1638	Heterogeneous graphene nanostructures: ZnO nanostructures grown on large-area graphene layers. <b>2010</b> , 6, 2448-52	79
1637	From one electron to one hole: quasiparticle counting in graphene quantum dots determined by electrochemical and plasma etching. <b>2010</b> , 6, 1469-73	88
1636	Graphene fluoride: a stable stoichiometric graphene derivative and its chemical conversion to graphene. <b>2010</b> , 6, 2885-91	337
1635	Fluorographene: a two-dimensional counterpart of Teflon. <b>2010</b> , 6, 2877-84	979
1634	Control of number of graphene layers grown by chemical vapor deposition. <b>2010</b> , 7, 2785-2788	23
1633	Probing layer number and stacking order of few-layer graphene by Raman spectroscopy. <b>2010</b> , 6, 195-200	521
1632	High-throughput, ultrafast synthesis of solution- dispersed graphene via a facile hydride chemistry. <b>2010</b> , 6, 226-31	92
1631	The superior dispersion of easily soluble graphite. <b>2010</b> , 6, 58-62	51
1630	Graphene oxide, highly reduced graphene oxide, and graphene: versatile building blocks for carbon-based materials. <b>2010</b> , 6, 711-23	2103
1629	High-concentration solvent exfoliation of graphene. <b>2010</b> , 6, 864-71	810
1628	Gating of single-layer graphene with single-stranded deoxyribonucleic acids. <b>2010</b> , 6, 1150-5	48
1627	Channel-length-dependent field-effect mobility and carrier concentration of reduced graphene oxide thin-film transistors. <b>2010</b> , 6, 1210-5	71
1626	Liquid-gated interface superconductivity on an atomically flat film. <b>2010</b> , 9, 125-8	447
1625	Spontaneous high-concentration dispersions and liquid crystals of graphene. <b>2010</b> , 5, 406-11	488
1624	Graphene photonics and optoelectronics. <b>2010</b> , 4, 611-622	5678
1623	Visualization of charge transport through Landau levels in graphene. <b>2010</b> , 6, 870-874	19
1622	. <b>2010</b> ,	117
1621	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

1620	Adsorption and Phase Behaviour in Nanochannels and Nanotubes. <b>2010</b> ,	20
1619	Engineered low-dimensional nanomaterials for sensors, actuators, and electronics. <b>2010</b> , 9, 041103	1
1618	Intrinsic high-frequency characteristics of graphene layers. <b>2010</b> , 12, 113031	14
1617	Fabrication of suspended graphene devices and their electronic properties. <b>2010</b> , 19, 097307	10
1616	Investigation of bioelectrocatalytic systems with PQQ-dependent GDH and carbonaceous materials. <b>2010</b> , 56, 83-87	2
1615	Engineered carbon nanotubes and graphene for nano-electronics and nanomechanics. <b>2010</b> ,	1
1614	Large homogeneous mono-/bi-layer graphene on 6H <sub>2</sub> SiC(0 0 0 1) and buffer layer elimination. <b>2010</b> , 43, 374010	59
1613	Novel Quantum Phases of Ultracold Bosonic Atoms in Honeycomb Optical Lattice. <b>2010</b> , 53, 861-863	3
1612	Liquid Crystal Addressing by Graphene Electrodes Made from Graphene Oxide. <b>2010</b> , 49, 100206	21
1611	Direct transformation of a resist pattern into a graphene field effect transistor through interfacial graphitization of liquid gallium. <b>2010</b> , 28, C6D1-C6D4	9
1610	A simple alcohol-chemical vapor deposition synthesis of single-layer graphenes using flash cooling. <b>2010</b> , 96, 263105	72
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1606	Uncovering the dominant scatterer in graphene sheets on SiO <sub>2</sub> . <b>2010</b> , 82,	44
1605	High contrast optical detection of single graphenes on optically transparent substrates. <b>2010</b> , 108, 106101	34
1604	Single Dirac cone with a flat band touching on line-centered-square optical lattices. <b>2010</b> , 81,	162
1603	Stability of exfoliated Bi <sub>2</sub> Sr <sub>2</sub> Dy <sub>x</sub> Ca <sub>1-x</sub> Cu <sub>2</sub> O <sub>8</sub> + $\delta$ studied by Raman microscopy. <b>2010</b> , 82,	32

1602	Phase diagram of H <sub>2</sub> adsorbed on graphene. <b>2010</b> , 81,	21
1601	Edge states in a honeycomb lattice: Effects of anisotropic hopping and mixed edges. <b>2010</b> , 81,	5
1600	Voltage-induced incandescent light emission from large-area graphene films. <b>2010</b> , 96, 143107	28
1599	Shubnikov-De Haas and Aharonov Bohm effects in a graphene nanoring structure. <b>2010</b> , 96, 143112	20
1598	Enhanced resistance of single-layer graphene to ion bombardment. <b>2010</b> , 107, 104326	25
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1373	Graphene: preparation and structural perfection. <b>2011</b> , 21, 3280-3294	114
1372	Phonon dispersions and piezoelectricity in bulk and multilayers of hexagonal boron nitride. <b>2011</b> , 83,	111
1371	Effects of domains in phonon conduction through hybrid boron nitride and graphene sheets. <b>2011</b> , 84,	53
1370	57 Applications of Nanoparticles Containing Porphyrins and Related Systems. <b>2011</b> , 349-417	1
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1368	Molecular insights into the surface morphology, layering structure, and aggregation kinetics of surfactant-stabilized graphene dispersions. <b>2011</b> , 133, 12810-23	128
1367	Exploring the fundamental effects of deposition time on the microstructure of graphene nanoflakes by Raman scattering and X-ray diffraction. <b>2011</b> , 13, 312-318	51
1366	An enhanced electrochemical platform based on graphene-polyoxometalate nanomaterials for sensitive determination of diphenolic compounds. <b>2011</b> , 3, 1587	40
1365	Nonlinear membrane model for large amplitude vibration of single layer graphene sheets. <b>2011</b> , 22, 305703	41
1364	Geometrical nonlinear free vibration of multi-layered graphene sheets. <b>2011</b> , 44, 135401	51
1363	RANDOM WALK TO GRAPHENE. <b>2011</b> , 25, 4055-4080	10
1362	Molecular Charge Transfer: A Simple and Effective Route To Engineer the Band Structures of BN Nanosheets and Nanoribbons. <b>2011</b> , 115, 18531-18537	97
1361	A green and ultrafast approach to the synthesis of scalable graphene nanosheets with Zn powder for electrochemical energy storage. <b>2011</b> , 21, 15449	69
1360	Scanning Probe Based Nanolithography and Nanomanipulation on Graphene. <b>2011</b> , 357-386	4
1359	Negative differential resistance in oxidized zigzag graphene nanoribbons. <b>2011</b> , 13, 1413-8	41
1358	Half metallicity in BC <sub>2</sub> N nanoribbons: stability, electronic structures, and magnetism. <b>2011</b> , 3, 2583-8	28
1357	Conversion of self-assembled monolayers into nanocrystalline graphene: structure and electric transport. <b>2011</b> , 5, 3896-904	83
1356	Electronic Structures of BC <sub>2</sub> N Nanoribbons. <b>2011</b> , 115, 3572-3577	34
1355	Phase diffusion in graphene-based Josephson junctions. <b>2011</b> , 107, 137005	37
1354	Ultrafast Microwave-Assisted Route to Surfactant-Free Ultrafine Pt Nanoparticles on Graphene: Synergistic Co-reduction Mechanism and High Catalytic Activity. <b>2011</b> , 23, 2772-2780	243
1353	A novel strategy for making soluble reduced graphene oxide sheets cheaply by adopting an endogenous reducing agent. <b>2011</b> , 21, 3365-3370	193
1352	Graphene veils and sandwiches. <b>2011</b> , 11, 3290-4	49
1351	Atomic-scale investigation of graphene grown on Cu foil and the effects of thermal annealing. <b>2011</b> , 5, 3607-13	125

1350	Energy-loss rate of a fast particle in graphene. <b>2011</b> , 99, 053111	1
1349	Graphite Oxide and Graphene Nanoribbons Reduction with Hydrogen Iodide. <b>2011</b> , 19, 461-468	27
1348	Graphene quantum dots embedded in hexagonal boron nitride sheets. <b>2011</b> , 98, 013105	62
1347	Graphene based Schottky junction solar cells on patterned silicon-pillar-array substrate. <b>2011</b> , 99, 233505	68
1346	Selective deposition of CdSe nanoparticles on reduced graphene oxide to understand photoinduced charge transfer in hybrid nanostructures. <b>2011</b> , 3, 2703-9	24
1345	Accurate six-band nearest-neighbor tight-binding model for the bands of bulk graphene and graphene nanoribbons. <b>2011</b> , 109, 104304	29
1344	Synthesis, assembly and applications of semiconductor nanomembranes. <b>2011</b> , 477, 45-53	526
1343	Graphene: materials in the Flatland. <b>2011</b> , 181, 1299	32
1342	Interplay between geometrical structure and electronic properties in rippled free-standing graphene. <b>2011</b> , 83,	32
1341	Phonons in single-layer and few-layer MoS <sub>2</sub> and WS <sub>2</sub> . <b>2011</b> , 84,	1027
1340	Localized in situ polymerization on graphene surfaces for stabilized graphene dispersions. <b>2011</b> , 3, 1844-51	94
1339	High-yield production and transfer of graphene flakes obtained by anodic bonding. <b>2011</b> , 5, 7700-6	37
1338	Introduction. <b>2011</b> , 1-12	0
1337	Electrostatic doping of graphene through ultrathin hexagonal boron nitride films. <b>2011</b> , 11, 4631-5	107
1336	Mega-electron-volt proton irradiation on supported and suspended graphene: A Raman spectroscopic layer dependent study. <b>2011</b> , 110, 084309	52
1335	Plasma nanoscience: setting directions, tackling grand challenges. <b>2011</b> , 44, 174001	143
1334	Highly controllable transparent and conducting thin films using layer-by-layer assembly of oppositely charged reduced graphene oxides. <b>2011</b> , 21, 3438-3442	181
1333	Electronic Functionality in Graphene-Based Nanoarchitectures: Discovery and Design via First-Principles Modeling. <b>2011</b> , 2, 73-80	53

1332	Graphene-templated formation of two-dimensional lepidocrocite nanostructures for high-efficiency catalytic degradation of phenols. <b>2011</b> , 4, 2035	74
1331	Two-dimensional nanosheets produced by liquid exfoliation of layered materials. <b>2011</b> , 331, 568-71	5221
1330	Enhanced and Stable Field Emission from in Situ Nitrogen-Doped Few-Layered Graphene Nanoflakes. <b>2011</b> , 115, 5366-5372	133
1329	Fabrication of graphene thin films based on layer-by-layer self-assembly of functionalized graphene nanosheets. <b>2011</b> , 3, 360-8	154
1328	Raman and optical characterization of multilayer turbostratic graphene grown via chemical vapor deposition. <b>2011</b> , 110, 013720	121
1327	A rapid, one-step, variable-valence metal ion assisted reduction method for graphene oxide. <b>2011</b> , 22, 405602	26
1326	Unified description of the dc conductivity of monolayer and bilayer graphene at finite densities based on resonant scatterers. <b>2011</b> , 83,	137
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1324	Spectroscopic ellipsometry of few-layer graphene. <b>2011</b> , 5, 051809	29
1323	Tunable band gaps in bilayer transition-metal dichalcogenides. <b>2011</b> , 84,	442
1322	Nonlinear elasticity in nanostructured materials. <b>2011</b> , 74, 116501	41
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1319	Bio-Mediated Assembly of Ordered Nanoparticle Superstructures. <b>2011</b> , 69-103	
1318	Facile synthesis of two-dimensional graphene/SnO <sub>2</sub> /Pt ternary hybrid nanomaterials and their catalytic properties. <b>2011</b> , 3, 4376-82	67
1317	Quantum Dots and Nanoroads of Graphene Embedded in Hexagonal Boron Nitride. <b>2011</b> , 115, 9889-9893	127
1316	Observation of oscillatory resistance behavior in coupled Bernal and rhombohedral stacking graphene. <b>2011</b> , 5, 5490-8	15
1315	The destruction of Landau levels in graphene nanoribbons by magnetic modulation. <b>2011</b> , 110, 063718	

1314	Local voltage drop in a single functionalized graphene sheet characterized by Kelvin probe force microscopy. <b>2011</b> , 11, 3543-9	75
1313	Direct formation of graphene-metal hybrid on dielectric surfaces by metal-induced crystallization. <b>2011</b> ,	
1312	Controlling the Functionalizations of Hexagonal Boron Nitride Structures by Carrier Doping. <b>2011</b> , 2, 2168-2173	35
1311	Atomic-scale characterization of graphene grown on copper (100) single crystals. <b>2011</b> , 133, 12536-43	136
1310	Stability of boron nitride bilayers: Ground-state energies, interlayer distances, and tight-binding description. <b>2011</b> , 83,	122
1309	Growth of bilayer graphene on insulating substrates. <b>2011</b> , 5, 8187-92	243
1308	High temperature focused ion beam response of graphite resulting in spontaneous nanosheet formation. <b>2011</b> , 29, 061804	1
1307	Half-Metallicity in Hybrid Graphene/Boron Nitride Nanoribbons with Dihydrogenated Edges. <b>2011</b> , 115, 9442-9450	94
1306	Elastic properties of edges in BN and SiC nanoribbons and of boundaries in C-BN superlattices: A density functional theory study. <b>2011</b> , 83,	39
1305	Quasi-free-standing epitaxial graphene on SiC (0001) by fluorine intercalation from a molecular source. <b>2011</b> , 5, 7662-8	87
1304	Nanostructure studies of strongly correlated materials. <b>2011</b> , 3, 3509-21	28
1303	Edge Stabilities of Hexagonal Boron Nitride Nanoribbons: A First-Principles Study. <b>2011</b> , 7, 720-4	61
1302	Boron nitride nanosheets: large-scale exfoliation in methanesulfonic acid and their composites with polybenzimidazole. <b>2011</b> , 21, 11371	193
1301	Nanoscale chemical imaging of single-layer graphene. <b>2011</b> , 5, 8442-8	155
1300	Decorating graphene sheets with Pt nanoparticles using sodium citrate as reductant. <b>2011</b> , 257, 10758-10762	44
1299	Functionalization of low-dimensional honeycomb germanium with 3d transition-metal atoms. <b>2011</b> , 50, 1717-1724	9
1298	Nature of electronic states in atomically thin MoS <sub>2</sub> field-effect transistors. <b>2011</b> , 5, 7707-12	671
1297	Formation of Carbon Clusters in the Initial Stage of Chemical Vapor Deposition Graphene Growth on Ni(111) Surface. <b>2011</b> , 115, 17695-17703	109

1296	Disorder-induced temperature-dependent transport in graphene: Puddles, impurities, activation, and diffusion. <b>2011</b> , 84,	74
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1293	Ultrastrong adhesion of graphene membranes. <b>2011</b> , 6, 543-6	749
1292	2D materials: to graphene and beyond. <b>2011</b> , 3, 20-30	1095
1291	Nobel Lecture: Graphene: Materials in the Flatland*. <b>2011</b> , 83, 837-849	584
1290	Nobel Lecture: Random walk to graphene*. <b>2011</b> , 83, 851-862	286
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1288	Electronic properties of graphene in a strong magnetic field. <b>2011</b> , 83, 1193-1243	612
1287	Reduced graphene oxide as a catalyst for hydrogenation of nitrobenzene at room temperature. <b>2011</b> , 47, 2432-4	346
1286	Exploration of edge-dependent optical selection rules for graphene nanoribbons. <b>2011</b> , 19, 23350-63	40
1285	Single-layer graphene cathodes for organic photovoltaics. <b>2011</b> , 98, 123303	53
1284	In situ synthesis of Co <sub>3</sub> O <sub>4</sub> /graphene nanocomposite material for lithium-ion batteries and supercapacitors with high capacity and supercapacitance. <b>2011</b> , 509, 7778-7783	134
1283	Accessing the transport properties of graphene and its multilayers at high carrier density. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 13002-6	11.5 247
1282	Wedging graphite into graphene and graphene-like platelets by dendritic macromolecules. <b>2011</b> , 21, 7820	24
1281	Chemical vapor deposition and etching of high-quality monolayer hexagonal boron nitride films. <b>2011</b> , 5, 7303-9	162
1280	Conversion of carbon dioxide to few-layer graphene. <b>2011</b> , 21, 9491	213
1279	A flexible biocompatible graphene sensor for real-time monitoring of PH and protein. <b>2011</b> ,	1



1278	Graphene on the carbon face of SiC: Electronic structure modification by hydrogen intercalation. <b>2011</b> , 83,	13
1277	Stable aqueous dispersion of reduced graphene nanosheets via non-covalent functionalization with conducting polymers and application in transparent electrodes. <b>2011</b> , 27, 2014-8	143
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1273	Integer quantum Hall effect in trilayer graphene. <b>2011</b> , 107, 126806	86
1272	Selective organic functionalization of graphene bulk or graphene edges. <b>2011</b> , 47, 9330-2	108
1271	A Comparative Study of Lattice Dynamics of Three- and Two-Dimensional MoS <sub>2</sub> . <b>2011</b> , 115, 16354-16361	250
1270	Graphene bubbles with controllable curvature. <b>2011</b> , 99, 093103	143
1269	Edge magnetoplasmons in wide armchair graphene ribbons. <b>2011</b> , 84,	11
1268	From point defects in graphene to two-dimensional amorphous carbon. <b>2011</b> , 106, 105505	582
1267	Epitaxial Graphene on SiC(0001). <b>2011</b> , 135-159	0
1266	GRAPHENE: SYNTHESIS, FUNCTIONALIZATION AND PROPERTIES. <b>2011</b> , 25, 4107-4143	18
1265	Nanographene-constructed carbon nanofibers grown on graphene sheets by chemical vapor deposition: high-performance anode materials for lithium ion batteries. <b>2011</b> , 5, 2787-94	249
1264	Drop-casted self-assembling graphene oxide membranes for scanning electron microscopy on wet and dense gaseous samples. <b>2011</b> , 5, 10047-54	95
1263	Theory of Defect Dynamics in Graphene. <b>2011</b> ,	1
1262	Electronic Transport Properties of Few-Layer Graphene Materials. <b>2011</b> ,	2
1261	Graphene Synthesis, Catalysis with Transition Metals and Their Interactions by Laser Photolysis. <b>2011</b> ,	

1260	Measuring Disorder in Graphene with Raman Spectroscopy. <b>2011</b> ,	7
1259	Nonlinear Optical Properties of Graphene and Carbon Nanotube Composites. <b>2011</b> ,	8
1258	El grafeno: entre serendipia, cinta adhesiva y emigrantes. <b>2011</b> , 22, 72-74	
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1255	EBonded Transition Metal Complexes of Polycyclic Aromatic Carbon Compounds. <b>2011</b> , 205-233	
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1249	Nanomaterials: Exfoliating the inorganics. <b>2011</b> , 6, 200-1	21
1248	Nonlinear damping in mechanical resonators made from carbon nanotubes and graphene. <b>2011</b> , 6, 339-42	458
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1246	Graphene: A novel carbon nanomaterial. <b>2011</b> , 47, 1-10	55
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1244	Nitrogen and boron doping effects on the electrical conductivity of graphene and nanotube. <b>2011</b> , 13, 1459-1464	54
1243	Graphene and graphene oxide: biofunctionalization and applications in biotechnology. <b>2011</b> , 29, 205-12	1150

1242	Hydrogen storage in graphene decorated with Pd and Pt nano-particles using an electroless deposition technique. <b>2011</b> , 82, 210-215	79
1241	Charge distributions of Li-doped few-layer graphenes on C-terminated SiC surfaces. <b>2011</b> , 406, 4296-4299	2
1240	Energetics and structural properties of carbon and oxygen doped hexagonal boron nitride sheets. <b>2011</b> , 44, 215-217	14
1239	Novel electric field effects on magnetic oscillations in graphene nanoribbons. <b>2011</b> , 375, 3624-3633	17
1238	Electron transport and excitations in graphene. <b>2011</b> , 3, 352-362	3
1237	Microstructural and electrochemical properties of vertically aligned few layered graphene (FLG) nanoflakes and their application in methanol oxidation. <b>2011</b> , 129, 1051-1057	61
1236	A study on the preparation of highly conductive graphene. <b>2011</b> , 65, 2582-2584	27
1235	Optical Frequency Conductance, Susceptance and Admittance of Quantum Wells. <b>2011</b> , 47, 500-509	3
1234	Performance Limits of Monolayer Transition Metal Dichalcogenide Transistors. <b>2011</b> , 58, 3042-3047	353
1233	Mechanical characterization of nanoindented graphene via molecular dynamics simulations. <b>2011</b> , 6, 481	21
1232	Superior cycle stability of nitrogen-doped graphene nanosheets as anodes for lithium ion batteries. <b>2011</b> , 13, 822-825	280
1231	Ultrasonication-assisted ultrafast reduction of graphene oxide by zinc powder at room temperature. <b>2011</b> , 49, 5389-5397	296
1230	Influence of Size Effect on the Electronic and Elastic Properties of Diamond Films with Nanometer Thickness. <b>2011</b> , 115, 132-136	65
1229	Graphene edges: a review of their fabrication and characterization. <b>2011</b> , 3, 86-95	353
1228	Photoluminescence from chemically exfoliated MoS <sub>2</sub> . <b>2011</b> , 11, 5111-6	2897
1227	Convenient synthesis and applications of gram scale boron nitride nanosheets. <b>2011</b> , 1, 1119	49
1226	Toward the growth of an aligned single-layer MoS <sub>2</sub> film. <b>2011</b> , 27, 11650-3	79
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1224	Stretching and breaking of ultrathin MoS <sub>2</sub> . <b>2011</b> , 5, 9703-9	1672
1223	Strong plasmonic enhancement of photovoltage in graphene. <b>2011</b> , 2, 458	679
1222	Edge effects in graphene nanostructures: From multiple reflection expansion to density of states. <b>2011</b> , 84,	35
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1220	Quo vadis, NASA?. <b>2011</b> , 7, 587-587	
1219	Integrated circuits and logic operations based on single-layer MoS <sub>2</sub> . <b>2011</b> , 5, 9934-8	1027
1218	Mechanical and Electronic Properties of MoS <sub>2</sub> Nanoribbons and Their Defects. <b>2011</b> , 115, 3934-3941	391
1217	Three-dimensional network model of carbon containing only sp <sup>2</sup> -carbon bonds and boron nitride analogues. <b>2011</b> , 47, 4406-8	37
1216	Electronic and magnetic properties of perfect, vacancy-doped, and nonmetal adsorbed MoSe <sub>2</sub> , MoTe <sub>2</sub> and WS <sub>2</sub> monolayers. <b>2011</b> , 13, 15546-53	349
1215	Graphene analogues of layered metal selenides. <b>2011</b> , 40, 10322-5	61
1214	Low-temperature photocarrier dynamics in monolayer MoS <sub>2</sub> . <b>2011</b> , 99, 102109	570
1213	Polymeric composite systems modified with allotropic forms of carbon (review). <b>2011</b> , 84, 735-750	16
1212	Theoretical study of the influence of vacancies on the electronic structure of a hexagonal boron nitride monolayer. <b>2011</b> , 112, 664-667	6
1211	Elastic characteristics of 2D carbon supracrystals as compared to graphene. <b>2011</b> , 53, 1481-1483	17
1210	The scientometric analysis of publications based on the materials of the peer-reviewed journal The Physics of Nanoobjects and Nanotechnologies of the All-Union Institute for Scientific and Technical Information of the Russian Academy of Sciences (VINITI RAS): Graphene. <b>2011</b> , 38, 285-289	2
1209	Effect of N doping and Stone-Wales defects on the electronic properties of graphene nanoribbons. <b>2011</b> , 79, 335-340	37
1208	An ab initio study on gas sensing properties of graphene and Si-doped graphene. <b>2011</b> , 81, 475-479	117
1207	LDA approximation based analysis of the adsorption of O <sub>3</sub> by boron nitride sheet. <b>2011</b> , 63, 271-273	29

1206	Graphene growth by a metal-catalyzed solid-state transformation of amorphous carbon. <b>2011</b> , 5, 1529-34	127
1205	Electronic transport in two-dimensional graphene. <b>2011</b> , 83, 407-470	2416
1204	Raman signature of electron-electron correlation in chemically doped few-layer graphene. <b>2011</b> , 83,	7
1203	GRAPHENE: SYNTHESIS, FUNCTIONALIZATION AND PROPERTIES. <b>2011</b> , 25, 427-451	36
1202	Graphene-Based Nanoassemblies for Energy Conversion. <b>2011</b> , 2, 242-251	553
1201	New directions in science and technology: two-dimensional crystals. <b>2011</b> , 74, 082501	185
1200	Electronic Transport in Graphene Heterostructures. <b>2011</b> , 2, 101-120	65
1199	Bi- and trilayer graphene solutions. <b>2011</b> , 6, 439-45	304
1198	How good can monolayer MoS <sub>2</sub> transistors be?. <b>2011</b> , 11, 3768-73	1184
1197	Zigzag graphene nanoribbon edge reconstruction with Stone-Wales defects. <b>2011</b> , 84,	60
1196	Environmentally friendly approaches toward the mass production of processable graphene from graphite oxide. <b>2011</b> , 21, 298-306	154
1195	Facile and simultaneous production of metal/metal oxide dispersed graphene nano composites by solar exfoliation. <b>2011</b> , 21, 17094	33
1194	Reducing Graphene Oxide via Hydroxylamine: A Simple and Efficient Route to Graphene. <b>2011</b> , 115, 11957-11966	66
1193	Bibliometric trend analysis on global graphene research. <b>2011</b> , 88, 399-419	55
1192	Functionalization of thermally reduced graphene by in situ atom transfer radical polymerization. <b>2011</b> , 13, 6389-6396	40
1191	First principles calculations of the electronic and chemical properties of graphene, graphane, and graphene oxide. <b>2011</b> , 17, 1133-9	109
1190	The electrochemistry of activated carbonaceous materials: past, present, and future. <b>2011</b> , 15, 1563-1578	132
1189	Fabrication of tin monosulfide nanosheet arrays using laser ablation. <b>2011</b> , 103, 505-510	10

1188	Large single-crystal monolayer graphene by decomposition of methanol. <b>2011</b> , 105, 31-37	5
1187	A supersymmetric model for graphene. <b>2011</b> , 2011, 1	13
1186	Magnetic catalysis and quantum Hall ferromagnetism in weakly coupled graphene. <b>2011</b> , 2011, 1	13
1185	Tuning graphene nanoribbon field effect transistors via controlling doping level. <b>2011</b> , 130, 483-489	4
1184	Green synthesis of graphene nanosheets/ZnO composites and electrochemical properties. <b>2011</b> , 184, 1421-1427	209
1183	Graphene [An exciting two-dimensional material for science and technology. <b>2011</b> , 16, 238-253	4
1182	Sodium citrate: A universal reducing agent for reduction / decoration of graphene oxide with au nanoparticles. <b>2011</b> , 4, 599-611	137
1181	Production of graphene nanospheres by annealing of graphene oxide in solution. <b>2011</b> , 4, 705-711	17
1180	Template based growth of nanoscaled films: a brief review. <b>2011</b> , 85, 649-666	50
1179	Studies on the properties of surface and edges of N-layer graphenes. <b>2011</b> , 54, 1729-1738	2
1178	Growth of carbon nanowalls at atmospheric pressure for one-step gas sensor fabrication. <b>2011</b> , 6, 202	104
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1176	Synthesis of freestanding HfO <sub>2</sub> nanostructures. <b>2011</b> , 6, 294	5
1175	Optical properties of exfoliated MoS <sub>2</sub> coaxial nanotubes - analogues of graphene. <b>2011</b> , 6, 593	73
1174	Controlling out-of-plane deformations of graphene nanobridges. <b>2011</b> , 248, 2839-2847	2
1173	Theory of phonon dispersions and piezoelectricity in multilayers of hexagonal boron-nitride. <b>2011</b> , 248, 2720-2723	16
1172	Conductance fluctuations in graphene devices with superconducting contacts in different charge density regimes. <b>2011</b> , 248, 2649-2652	
1171	Hunting for monolayer boron nitride: optical and Raman signatures. <b>2011</b> , 7, 465-8	791

1170	Graphene-based materials: synthesis, characterization, properties, and applications. <b>2011</b> , 7, 1876-902	1968
1169	Chemical preparation of graphene-based nanomaterials and their applications in chemical and biological sensors. <b>2011</b> , 7, 2413-27	201
1168	Atomically thin mica flakes and their application as ultrathin insulating substrates for graphene. <b>2011</b> , 7, 2491-7	62
1167	The Kernel energy method: Application to graphene and extended aromatics. <b>2011</b> , 111, 4150-4157	37
1166	One-Step Electrochemical Synthesis of Graphene/Polyaniline Composite Film and Its Applications. <b>2011</b> , 21, 2989-2996	434
1165	Ultrafast Direct Ablative Patterning of HOPG by Single Laser Pulses to Produce Graphene Ribbons. <b>2011</b> , 21, 3836-3842	12
1164	Facile Physical Route to Highly Crystalline Graphene. <b>2011</b> , 21, 3496-3501	84
1163	Production of high-quality carbon nanoscrolls with microwave spark assistance in liquid nitrogen. <b>2011</b> , 23, 2460-3	98
1162	Self-organized graphene patterns. <b>2011</b> , 23, 2734-8	42
1161	Electrical characteristics of molybdenum disulfide flakes produced by liquid exfoliation. <b>2011</b> , 23, 4178-82	208
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