Elena Bekyarova

List of Publications by Year
in descending order

98 papers	11,084 citations	66234 42 h-index	39575 94 g-index
103 all docs	103 docs citations	103 times ranked	14367 citing authors

#	Article	IF	Citations
1	Solution Properties of Graphite and Graphene. Journal of the American Chemical Society, 2006, 128, 7720-7721.	6.6	1,215
2	Graphite Nanoplateletâ^'Epoxy Composite Thermal Interface Materials. Journal of Physical Chemistry C, 2007, 111, 7565-7569.	1.5	941
3	Enhanced Thermal Conductivity in a Hybrid Graphite Nanoplatelet â€“ Carbon Nanotube Filler for Epoxy Composites. Advanced Materials, 2008, 20, 4740-4744.	11.1	878
4	Chemical Modification of Epitaxial Graphene: Spontaneous Grafting of Aryl Groups. Journal of the American Chemical Society, 2009, 131, 1336-1337.	6.6	782
5	Spectroscopy of Covalently Functionalized Graphene. Nano Letters, 2010, 10, 4061-4066.	4.5	507
6	Preparation of Single-Walled Carbon Nanotube Reinforced Polystyrene and Polyurethane Nanofibers and Membranes by Electrospinning. Nano Letters, 2004, 4, 459-464.	4.5	502
7	Continuous Spinning of a Single-Walled Carbon Nanotubeâ^'Nylon Composite Fiber. Journal of the American Chemical Society, 2005, 127, 3847-3854.	6.6	380
8	Electronic Properties of Single-Walled Carbon Nanotube Networks. Journal of the American Chemical Society, 2005, 127, 5990-5995.	6.6	363
9	MoS₂-Based Optoelectronic Gas Sensor with Sub-parts-per-billion Limit of NO₂ Gas Detection. ACS Nano, 2019, 13, 3196-3205.	7.3	349
10	Dielsâ^'Alder Chemistry of Graphite and Graphene: Graphene as Diene and Dienophile. Journal of the American Chemical Society, 2011, 133, 3324-3327.	6.6	253
11	Applications of Carbon Nanotubes in Biotechnology and Biomedicine. Journal of Biomedical Nanotechnology, 2005, 1, 3-17.	0.5	242
12	Influence of the Zeta Potential on the Dispersability and Purification of Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2005, 109, 11520-11524.	1.2	210
13	Single-Wall Nanostructured Carbon for Methane Storage. Journal of Physical Chemistry B, 2003, 107, 4681-4684.	1.2	199
14	Chemical Engineering of the Single-Walled Carbon Nanotubeâ^'Nylon 6 Interface. Journal of the American Chemical Society, 2006, 128, 7492-7496.	6.6	186
15	High Energy Density Supercapacitor Based on a Hybrid Carbon Nanotubeâ€“Reduced Graphite Oxide Architecture. Advanced Energy Materials, 2012, 2, 438-444.	10.2	182
16	Conductive Single-Walled Carbon Nanotube Substrates Modulate Neuronal Growth. Nano Letters, 2009, 9, 264-268.	4.5	177
17	Antimicrobial Mechanisms and Effectiveness of Graphene and Graphene-Functionalized Biomaterials. A Scope Review. Frontiers in Bioengineering and Biotechnology, 2020, 8, 465.	2.0	165
18	Effect of Covalent Chemistry on the Electronic Structure and Properties of Carbon Nanotubes and Graphene. Accounts of Chemical Research, 2013, 46, 65-76.	7.6	161

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19	Chemistry at the Dirac Point: Dielsâ€“Alder Reactivity of Graphene. Accounts of Chemical Research, 2012, 45, 673-682.	7.6	158
20	CO oxidation on Pd/CeO2â€“ZrO2 catalysts. Catalysis Today, 1998, 45, 179-183.	2.2	146
21	Effect of single-walled carbon nanotube purity on the thermal conductivity of carbon nanotube-based composites. Applied Physics Letters, 2006, 89, 133102.	1.5	146
22	Functionalization and Dissolution of Nitric Acid Treated Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 18153-18158.	6.6	146
23	Functionalized Single-Walled Carbon Nanotubes for Carbon Fiberâ˜Epoxy Compositesâ€. Journal of Physical Chemistry C, 2007, 111, 17865-17871.	1.5	141
24	Aryl Functionalization as a Route to Band Gap Engineering in Single Layer Graphene Devices. Nano Letters, 2011, 11, 4047-4051.	4.5	136
25	Covalent Chemistry for Graphene Electronics. Journal of Physical Chemistry Letters, 2011, 2, 2487-2498.	2.1	131
26	Advances in transferring chemical vapour deposition graphene: a review. Materials Horizons, 2017, 4, 1054-1063.	6.4	121
27	Poly(m-aminobenzene sulfonic acid) functionalized single-walled carbon nanotubes based gas sensor. Nanotechnology, 2007, 18, 165504.	1.3	116
28	Application of Centrifugation to the Large-Scale Purification of Electric Arc-Produced Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2006, 128, 9902-9908.	6.6	110
29	Large-Scale Fabrication of Aligned Single-Walled Carbon Nanotube Array and Hierarchical Single-Walled Carbon Nanotube Assembly. Journal of the American Chemical Society, 2004, 126, 16698-16699.	6.6	105
30	Organometallic chemistry of extended periodic Ï€-electron systems: hexahapto-chromium complexes of graphene and single-walled carbon nanotubes. Chemical Science, 2011, 2, 1326.	3.7	96
31	Mechanism of Ammonia Detection by Chemically Functionalized Single-Walled Carbon Nanotubes:â€‰InSituElectrical and Optical Study of Gas Analyte Detection. Journal of the American Chemical Society, 2007, 129, 10700-10706.	6.6	86
32	Incorporation of highly dispersed single-walled carbon nanotubes in a polyimide matrix. Composites Science and Technology, 2006, 66, 1190-1197.	3.8	83
33	Fast Electrochromic Device Based on Single-Walled Carbon Nanotube Thin Films. Nano Letters, 2016, 16, 5386-5393.	4.5	77
34	Controlled Opening of Single-Wall Carbon Nanohorns by Heat Treatment in Carbon Dioxide. Journal of Physical Chemistry B, 2003, 107, 4479-4484.	1.2	74
35	Visible-Blind UV Photodetector Based on Single-Walled Carbon Nanotube Thin Film/ZnO Vertical Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 37094-37104.	4.0	67
36	Effect of Nitrophenyl Functionalization on the Magnetic Properties of Epitaxial Graphene. Small, 2011, 7, 1175-1180.	5.2	65

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37	Organometallic Hexahapto Functionalization of Single Layer Graphene as a Route to High Mobility Graphene Devices. Advanced Materials, 2013, 25, 1131-1136.	11.1	59
38	Covalent chemistry in graphene electronics. Materials Today, 2012, 15, 276-285.	8.3	58
39	Palladium Nanoclusters Deposited on Single-Walled Carbon Nanohorns. Journal of Physical Chemistry B, 2005, 109, 3711-3714.	1.2	55
40	Fabrication and Properties of Conducting Polypyrrole/SWNT-PABS Composite Films and Nanotubes. Electroanalysis, 2006, 18, 1047-1054.	1.5	48
41	Synthesis, Dispersion, and Viscosity of Poly(ethylene glycol)-Functionalized Water-Soluble Single-Walled Carbon Nanotubes. Chemistry of Materials, 2011, 23, 1246-1253.	3.2	47
42	Chemically Engineered Graphene-Based 2D Organic Molecular Magnet. ACS Nano, 2013, 7, 10011-10022.	7.3	47
43	Giant Raman Response to the Encapsulation of Sulfur in Narrow Diameter Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2016, 138, 40-43.	6.6	43
44	Effect of Atomic Interconnects on Percolation in Single-Walled Carbon Nanotube Thin Film Networks. Nano Letters, 2014, 14, 3930-3937.	4.5	42
45	Dependence of the thermal conductivity of two-dimensional graphite nanoplatelet-based composites on the nanoparticle size distribution. Journal of Physics Condensed Matter, 2010, 22, 334216.	0.7	41
46	Chemical approach to the realization of electronic devices in epitaxial graphene. Physica Status Solidi - Rapid Research Letters, 2009, 3, 184-186.	1.2	39
47	Electro-oxidized Epitaxial Graphene Channel Field-Effect Transistors with Single-Walled Carbon Nanotube Thin Film Gate Electrode. Journal of the American Chemical Society, 2010, 132, 14429-14436.	6.6	38
48	Chemically Functionalized Water-Soluble Single-Walled Carbon Nanotubes Modulate Morpho-Functional Characteristics of Astrocytes. Nano Letters, 2012, 12, 4742-4747.	4.5	38
49	Large-scale cellulose-assisted transfer of graphene toward industrial applications. Carbon, 2016, 110, 286-291.	5.4	38
50	Charge-compensated, semiconducting single-walled carbon nanotube thin film as an electrically configurable optical medium. Nature Photonics, 2013, 7, 459-465.	15.6	37
51	Networks of Semiconducting SWNTs: Contribution of Midgap Electronic States to the Electrical Transport. Accounts of Chemical Research, 2015, 48, 2270-2279.	7.6	37
52	Hexahaptoâ€Metal Complexes of Singleâ€Walled Carbon Nanotubes. Macromolecular Chemistry and Physics, 2012, 213, 1001-1019.	1.1	35
53	Catalytic Neutralization of NO on a Carbon-Supported Cobalt Oxide Catalyst. Journal of Colloid and Interface Science, 1994, 166, 476-480.	5.0	33
54	Microporous Nature of Ce,Zr-Doped Carbon Aerogels. Langmuir, 1999, 15, 7119-7121.	1.6	32

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55	Reversible Grafting of Î±â€Naphthylmethyl Radicals to Epitaxial Graphene. Angewandte Chemie - International Edition, 2012, 51, 4901-4904.	7.2	32
56	Differentiation of stem cells from apical papilla into neural lineage using graphene dispersion and single walled carbon nanotubes. Journal of Biomedical Materials Research - Part A, 2018, 106, 2653-2661.	2.1	32
57	A solid state energy storage device with supercapacitorâ€“battery hybrid design. Journal of Materials Chemistry A, 2017, 5, 15266-15272.	5.2	31
58	Substrate temperature effect during the deposition of (Cu/Sn/Cu/Zn) stacked precursor CZTS thin film deposited by electron-beam evaporation. Journal of Materials Science: Materials in Electronics, 2018, 29, 20476-20484.	1.1	28
59	Covalent Atomic Bridges Enable Unidirectional Enhancement of Electronic Transport in Aligned Carbon Nanotubes. ACS Applied Materials & Interfaces, 2019, 11, 19315-19323.	4.0	27
60	Solidâ€state Bisâ€hexahaptoâ€metal complexation of singleâ€walled carbon nanotubes. Journal of Physical Organic Chemistry, 2012, 25, 607-610.	0.9	26
61	Chemically Functionalized Single-Walled Carbon Nanotube Films Modulate the Morpho-Functional and Proliferative Characteristics of Astrocytes. Nano Letters, 2013, 13, 4387-4392.	4.5	25
62	Chemically Engineered Singleâ€Walled Carbon Nanotube Materials for the Electronic Detection of Hydrogen Chloride. Advanced Materials, 2010, 22, 848-852.	11.1	24
63	Optical and electronic properties of thin films and solutions of functionalized forms of graphene and related carbon materials. Carbon, 2014, 72, 82-88.	5.4	23
64	Organometallic chemistry of graphene: Photochemical complexation of graphene with group 6 transition metals. Carbon, 2018, 129, 450-455.	5.4	22
65	Enhanced photosensitivity of electro-oxidized epitaxial graphene. Applied Physics Letters, 2011, 98, .	1.5	21
66	Sublimation-assisted graphene transfer technique based on small polyaromatic hydrocarbons. Nanotechnology, 2017, 28, 255701.	1.3	21
67	Effect of Group 6 Transition Metal Coordination on the Conductivity of Graphite Nanoplatelets. Materials Letters, 2012, 80, 171-174.	1.3	20
68	Changes in the Morphology and Proliferation of Astrocytes Induced by Two Modalities of Chemically Functionalized Single-Walled Carbon Nanotubes are Differentially Mediated by Glial Fibrillary Acidic Protein. Nano Letters, 2014, 14, 3720-3727.	4.5	20
69	High Modulation Speed, Depth, and Coloration Efficiency of Carbon Nanotube Thin Film Electrochromic Device Achieved by Counter Electrode Impedance Matching. Advanced Materials Interfaces, 2018, 5, 1800861.	1.9	19
70	Nanoporosities and catalytic activities of Pd-tailored single wall carbon nanohorns. Journal of Colloid and Interface Science, 2008, 322, 209-214.	5.0	18
71	Chemically functionalized single-walled carbon nanotubes enhance the glutamate uptake characteristics of mouse cortical astrocytes. Amino Acids, 2015, 47, 1379-1388.	1.2	17
72	Application of Organometallic Chemistry to the Electrical Interconnection of Graphene Nanoplatelets. Chemistry of Materials, 2016, 28, 2260-2266.	3.2	17

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73	Evolution of cellulose acetate to monolayer graphene. Carbon, 2021, 174, 24-35.	5.4	15
74	Hexahapto-lanthanide interconnects between the conjugated surfaces of single-walled carbon nanotubes. Dalton Transactions, 2014, 43, 7379-7382.	1.6	14
75	Protection of Molecular Microcrystals by Encapsulation under Single-Layer Graphene. ACS Omega, 2018, 3, 8129-8134.	1.6	14
76	Photochemical generation of bis-hexahapto chromium interconnects between the graphene surfaces of single-walled carbon nanotubes. Materials Horizons, 2015, 2, 81-85.	6.4	12
77	Shaping Organic Microcrystals Using Focused Ion Beam Milling. Crystal Growth and Design, 2020, 20, 1583-1589.	1.4	12
78	Study on Active Carbon-Supported Two-Component Catalysts for NO Conversion. Journal of Colloid and Interface Science, 1999, 213, 400-404.	5.0	11
79	Adsorption of Supercritical N2 and O2 on Pore-Controlled Carbon Aerogels. Journal of Colloid and Interface Science, 2001, 238, 357-361.	5.0	11
80	Synthesis, structure and solid state properties of benzannulated phenalenyl based neutral radical conductor. Journal of Physical Organic Chemistry, 2012, 25, 566-573.	0.9	11
81	Synergistic enhancement of thermal conductivity by addition of graphene nanoplatelets to threeâ€dimensional boron nitride scaffolds for polyamide 6 composites. Polymer Engineering and Science, 2021, 61, 1415-1426.	1.5	11
82	Effect of Calcination on Co-Impregnated Active Carbon. Journal of Colloid and Interface Science, 1993, 161, 115-119.	5.0	10
83	Effect of constructive rehybridization on transverse conductivity of aligned single-walled carbon nanotube films. Materials Today, 2018, 21, 937-943.	8.3	10
84	Origin of the Giant Enhanced Raman Scattering by Sulfur Chains Encapsulated inside Single-Wall Carbon Nanotubes. ACS Nano, 2021, 15, 8574-8582.	7.3	10
85	The coordination chemistry of oxide and nanocarbon materials. Dalton Transactions, 2022, 51, 8557-8570.	1.6	7
86	Solution-phase synthesis of chromium-functionalized single-walled carbon nanotubes. Materials Letters, 2015, 142, 312-316.	1.3	5
87	Effect of Lanthanide Metal Complexation on the Properties and Electronic Structure of Single-Walled Carbon Nanotube Films. ACS Applied Materials & Interfaces, 2015, 7, 28013-28018.	4.0	5
88	Synthesis, Structure and Solid State Properties of Cyclohexanemethylamine Substituted Phenalenyl Based Molecular Conductor. Crystals, 2012, 2, 446-465.	1.0	4
89	Formation of Transition Metal Cluster Adducts on the Surface of Single-walled Carbon Nanotubes: HRTEM Studies. Fullerenes Nanotubes and Carbon Nanostructures, 2014, 22, 47-53.	1.0	3
90	Effects of Chemically-Functionalized Single-Walled Carbon Nanotubes on the Morphology and Vitality of D54MG Human Glioblastoma Cells. Neuroglia (Basel, Switzerland), 2018, 1, 327-338.	0.3	3

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91	Role of triethanolamine in forming Cu 2 ZnSnS 4 nanoparticles during solvothermal processing for solar cell applications. International Journal of Energy Research, 0, , .	2.2	3
92	(Invited) Effect of Covalent Chemistry on the Electronic Structure and Properties of the Carbon Allotropes. ECS Transactions, 2017, 77, 569-579.	0.3	2
93	Chemically Functionalized Water-Soluble Single-Walled Carbon Nanotubes Obstruct Vesicular/Plasmalemmal Recycling in Astrocytes Down-Stream of Calcium Ions. Cells, 2020, 9, 1597.	1.8	2
94	Patterning Submicron Photomechanical Features into Single Diarylethene Crystals Using Electron Beam Lithography. Nanoscale Horizons, 0, , .	4.1	2
95	Hexagonal Boron Nitride Encapsulation of Organic Microcrystals and Energy-Transfer Dynamics. Journal of Physical Chemistry C, 2020, 124, 21170-21177.	1.5	1
96	Carbon Nanomaterials for Energy Applications. ECS Meeting Abstracts, 2021, MA2021-01, 494-494.	0.0	0
97	(Invited) Design of Metal - Carbon Nanotube Structures for Electronic and Optoelectronic Applications. ECS Meeting Abstracts, 2019, , .	0.0	0
98	Design of Carbon Nanomaterials for Energy Applications. ECS Meeting Abstracts, 2022, MA2022-01, 618-618.	0.0	0