Ayrat M Dimiev

List of Publications by Year
in descending order

50 papers	7,210 citations	270111 25 h-index	214428 50 g-index
58 all docs	58 docs citations	58 times ranked	12206 citing authors

#	ARTICLE	IF	CITATIONS
1	Antibody mounting capability of 1D/2D carbonaceous nanomaterials toward rapid-specific detection of SARS-CoV-2. Talanta, 2022, 239, 123113.	2.9	15
2	Synergic effect of laser-assisted graphene with silver nanowire reinforced polyindole/polypyrrole toward superior energy density. Carbon, 2022, 188, 276-288.	5.4	16
3	Pristine graphite oxide retains its C-axis registry in methanol. The way to alternative purification method. Carbon, 2021, 173, 154-162.	5.4	6
4	Mimicking the graphene oxide structure in solutions by interaction of Fe(III) and Gd(III) with model small-size ligands. The NMR relaxation study. Journal of Molecular Liquids, 2021, 321, 114344.	2.3	7
5	Carboxyl groups do not play the major role in binding metal cations by graphene oxide. Physical Chemistry Chemical Physics, 2021, 23, 17430-17439.	1.3	14
6	Simple, cost-efficient and high throughput method for separating single-wall carbon nanotubes with modified cotton. Carbon, 2021, 178, 157-163.	5.4	11
7	Individual Ni atoms on reduced graphene oxide as efficient catalytic system for reduction of 4-nitrophenol. Applied Surface Science, 2021, 565, 150503.	3.1	16
8	Graphene Oxideâ€“Epoxy Composites with Induced Anisotropy of Electrical Properties. Journal of Physical Chemistry C, 2021, 125, 26823-26831.	1.5	8
9	Mechanism of the graphene oxide formation: The role of water, â€œreversibilityâ€•of the oxidation, and mobility of the Câ€“O bonds. Carbon, 2020, 166, 1-14.	5.4	39
10	Binding modes of Fe(III) with graphene oxide in aqueous solutions. Competition with Sr2+, Cs+, Na+ ions and Fe(III) chelators. Journal of Molecular Liquids, 2020, 302, 112461.	2.3	9
11	Polymer Composites Comprising Single-Atomic-Layer Graphenic Conductive Inclusions and Their Unusual Dielectric Properties. Journal of Physical Chemistry C, 2020, 124, 13715-13725.	1.5	6
12	Direct growth of oriented nanocrystals of gamma-iron on graphene oxide substrates. Detailed analysis of the factors affecting unexpected formation of the gamma-iron phase. New Journal of Chemistry, 2019, 43, 12923-12931.	1.4	6
13	Stage Transitions in Graphite Intercalation Compounds: Role of the Graphite Structure. Journal of Physical Chemistry C, 2019, 123, 19246-19253.	1.5	32
14	Counterion Concentration Profiles at the Graphene Oxide/Water Interface. Langmuir, 2019, 35, 13469-13479.	1.6	17
15	Intrinsic Insertion Limits of Graphene Oxide into Epoxy Resin and the Dielectric Behavior of Composites Comprising Truly 2D Structures. Journal of Physical Chemistry C, 2019, 123, 3461-3468.	1.5	11
16	Growth of invar nanoparticles on a graphene oxide support. CrystEngComm, 2019, 21, 4092-4097.	1.3	5
17	Solvent-induced changes in the graphene oxide absorption spectrum. The case of dimethylsulfoxide/water mixtures. Journal of Molecular Liquids, 2019, 287, 110942.	2.3	7
18	Catalytic properties of graphene oxide/palladium composites as a function of the fabrication method. New Journal of Chemistry, 2019, 43, 19035-19043.	1.4	7

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19	Fully exfoliated graphene oxide accelerates epoxy resin curing, and results in dramatic improvement of the polymer mechanical properties. Composites Part B: Engineering, 2019, 162, 685-691.	5.9	47
20	Analysis of competitive binding of several metal cations by graphene oxide reveals the quantity and spatial distribution of carboxyl groups on its surface. Physical Chemistry Chemical Physics, 2018, 20, 2320-2329.	1.3	34
21	On the Solvation Behavior of Graphene Oxide in Ethylene Glycol/Water Mixtures. ChemPhysChem, 2018, 19, 1344-1348.	1.0	6
22	Revisiting the Mechanism of Oxidative Unzipping of Multiwall Carbon Nanotubes to Graphene Nanoribbons. ACS Nano, 2018, 12, 3985-3993.	7.3	88
23	Magneto-Optical Properties of the Magnetite-Graphene Oxide Composites in Organic Solvents. ACS Applied Materials & Interfaces, 2018, 10, 40024-40031.	4.0	9
24	Distribution of Gd(III) ions at the graphene oxide/water interface. Journal of Colloid and Interface Science, 2018, 527, 222-229.	5.0	8
25	Î3-Iron Phase Stabilized at Room Temperature by Thermally Processed Graphene Oxide. Journal of the American Chemical Society, 2018, 140, 9051-9055.	6.6	24
26	Oxidatively modified carbon as efficient material for removing radionuclides from water. Carbon, 2017, 115, 394-401.	5.4	27
27	Chemistry of graphene oxide. Reactions with transition metal cations. Carbon, 2017, 116, 356-365.	5.4	66
28	Facile, environmentally friendly, cost effective and scalable production of few-layered graphene. Chemical Engineering Journal, 2017, 326, 1105-1115.	6.6	35
29	Homogeneous Liquid Phase Transfer of Graphene Oxide into Epoxy Resins. ACS Applied Materials & Interfaces, 2017, 9, 11909-11917.	4.0	35
30	New Details to Relaxation Dynamics of Dielectric Composite Materials Comprising Longitudinally Opened Carbon Nanotubes. Journal of Physical Chemistry C, 2017, 121, 22995-23001.	1.5	9
31	The Mechanistic Details for the Growth of Palladium Nanoparticles on Graphene Oxide Support. ChemistrySelect, 2017, 2, 10546-10554.	0.7	9
32	New insights into the solubility of graphene oxide in water and alcohols. Physical Chemistry Chemical Physics, 2017, 19, 17000-17008.	1.3	111
33	Chemical Mass Production of Graphene Nanoplatelets in âˆ¼100% Yield. ACS Nano, 2016, 10, 274-279.	7.3	139
34	Contesting the two-component structural model of graphene oxide and reexamining the chemistry of graphene oxide in basic media. Carbon, 2015, 93, 544-554.	5.4	93
35	Mechanism of Graphene Oxide Formation. ACS Nano, 2014, 8, 3060-3068.	7.3	705
36	Enhanced MRI relaxivity of aquated Gd³⁺ ions by carboxyphenylated water-dispersed graphene nanoribbons. Nanoscale, 2014, 6, 3059-3063.	2.8	43

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37	Permittivity of Dielectric Composite Materials Comprising Graphene Nanoribbons. The Effect of Nanostructure. ACS Applied Materials & Interfaces, 2013, 5, 7567-7573.	4.0	47
38	Graphene Oxide. Origin of Acidity, Its Instability in Water, and a New Dynamic Structural Model. ACS Nano, 2013, 7, 576-588.	7.3	548
39	Stable aqueous colloidal solutions of intact surfactant-free graphene nanoribbons and related graphitic nanostructures. Chemical Communications, 2013, 49, 2613.	2.2	15
40	Direct Real-Time Monitoring of Stage Transitions in Graphite Intercalation Compounds. ACS Nano, 2013, 7, 2773-2780.	7.3	153
41	<i>In Situ</i> Intercalation Replacement and Selective Functionalization of Graphene Nanoribbon Stacks. ACS Nano, 2012, 6, 4231-4240.	7.3	106
42	Reversible Formation of Ammonium Persulfate/Sulfuric Acid Graphite Intercalation Compounds and Their Peculiar Raman Spectra. ACS Nano, 2012, 6, 7842-7849.	7.3	95
43	Pristine Graphite Oxide. Journal of the American Chemical Society, 2012, 134, 2815-2822.	6.6	393
44	Highly water soluble multi-layer graphene nanoribbons and related honey-comb carbon nanostructures. Chemical Communications, 2012, 48, 5602.	2.2	11
45	Low-Loss, High-Permittivity Composites Made from Graphene Nanoribbons. ACS Applied Materials & Interfaces, 2011, 3, 4657-4661.	4.0	61
46	Layer-by-Layer Removal of Graphene for Device Patterning. Science, 2011, 331, 1168-1172.	6.0	221
47	Corrugation of Chemically Converted Graphene Monolayers on SiO₂. ACS Nano, 2010, 4, 3095-3102.	7.3	42
48	Kinetics of Diazonium Functionalization of Chemically Converted Graphene Nanoribbons. ACS Nano, 2010, 4, 1949-1954.	7.3	333
49	Graphene Nanoribbon Devices Produced by Oxidative Unzipping of Carbon Nanotubes. ACS Nano, 2010, 4, 5405-5413.	7.3	130
50	Longitudinal unzipping of carbon nanotubes to form graphene nanoribbons. Nature, 2009, 458, 872-876.	13.7	3,246