

Alexandr V Talyzin

List of Publications by Year in descending order

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95
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145106

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docs citations

98
times ranked

5030
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#	ARTICLE	IF	CITATIONS
1	Random interstratification in hydrated graphene oxide membranes and implications for seawater desalination. <i>Nature Nanotechnology</i> , 2022, 17, 131-133.	15.6	17
2	High Surface Area 3D Graphene Oxide for Enhanced Sorption of Radionuclides. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	7
3	Carboxyl groups do not play the major role in binding metal cations by graphene oxide. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 17430-17439.	1.3	14
4	Facile fabrication of graphene-based high-performance microsupercapacitors operating at a high temperature of 150 °C. <i>Nanoscale Advances</i> , 2021, 3, 4674-4679.	2.2	4
5	Ball-milling-enhanced capacitive charge storage of activated graphene in aqueous, organic and ionic liquid electrolytes. <i>Electrochimica Acta</i> , 2021, 370, 137738.	2.6	16
6	Intercalation of Dyes in Graphene Oxide Thin Films and Membranes. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6877-6885.	1.5	10
7	Critical Role of Functional Groups Containing N, S, and O on Graphene Surface for Stable and Fast Charging Li-ion Batteries. <i>Small</i> , 2021, 17, e2007242.	5.2	23
8	Spray Deposition of Supercapacitor Electrodes using Environmentally Friendly Aqueous Activated Graphene and Activated Carbon Dispersions for Industrial Implementation. <i>ChemElectroChem</i> , 2021, 8, 1349-1361.	1.7	7
9	Swelling Pressures of Graphite Oxide and Graphene Oxide Membranes in Water and Ethanol. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100552.	1.9	22
10	Defective graphene nanosheets for drinking water purification: Adsorption mechanism, performance, and recovery. <i>FlatChem</i> , 2021, 29, 100283.	2.8	23
11	Covalent Organic Framework (COF) under High Pressure. <i>Angewandte Chemie</i> , 2020, 132, 1103-1108.	1.6	3
12	New insights into the mechanism of graphene oxide and radionuclide interaction. <i>Carbon</i> , 2020, 158, 291-302.	5.4	37
13	Covalent Organic Framework (COF) under High Pressure. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1087-1092.	7.2	34
14	Swollen Structures of Brodie Graphite Oxide as Solid Solvates. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23410-23418.	1.5	9
15	Acetylation of graphite oxide. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 21059-21067.	1.3	2
16	Enhanced Sorption of Radionuclides by Defect-Rich Graphene Oxide. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 45122-45135.	4.0	50
17	Swelling properties of graphite oxides and graphene oxide multilayered materials. <i>Nanoscale</i> , 2020, 12, 21060-21093.	2.8	66
18	Aqueous Activated Graphene Dispersions for Deposition of High-Surface Area Supercapacitor Electrodes. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3032-3038.	2.1	30

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19	Thermally reduced pillared GO with precisely defined slit pore size. RSC Advances, 2020, 10, 6831-6839.	1.7	7
20	Activated graphene as a material for supercapacitor electrodes: effects of surface area, pore size distribution and hydrophilicity. Physical Chemistry Chemical Physics, 2019, 21, 17901-17912.	1.3	43
21	Evaluation of fluorine and sulfonic acid co-functionalized graphene oxide membranes under hydrogen proton exchange membrane fuel cell conditions. Sustainable Energy and Fuels, 2019, 3, 1790-1798.	2.5	13
22	Swelling of graphene oxide membranes in alcohols: effects of molecule size and air ageing. Journal of Materials Chemistry A, 2019, 7, 11331-11337.	5.2	38
23	A Molecular Pillar Approach To Grow Vertical Covalent Organic Framework Nanosheets on Graphene: Hybrid Materials for Energy Storage. Angewandte Chemie - International Edition, 2018, 57, 1034-1038.	7.2	198
24	A Molecular Pillar Approach To Grow Vertical Covalent Organic Framework Nanosheets on Graphene: Hybrid Materials for Energy Storage. Angewandte Chemie, 2018, 130, 1046-1050.	1.6	40
25	Gravimetric tank method to evaluate material-enhanced hydrogen storage by physisorbing materials. Physical Chemistry Chemical Physics, 2018, 20, 27983-27991.	1.3	7
26	Exactly matched pore size for the intercalation of electrolyte ions determined using the tunable swelling of graphite oxide in supercapacitor electrodes. Nanoscale, 2018, 10, 21386-21395.	2.8	23
27	Properties of Graphite Oxide Powders and Membranes as Revealed by Electron Paramagnetic Resonance Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 22750-22759.	1.5	18
28	Swelling of Thin Graphene Oxide Films Studied by in Situ Neutron Reflectivity. Journal of Physical Chemistry C, 2018, 122, 13106-13116.	1.5	19
29	Graphite oxide swelling in molten sugar alcohols and their aqueous solutions. Carbon, 2018, 140, 157-163.	5.4	15
30	Porous graphite oxide pillared with tetrapod-shaped molecules. Carbon, 2017, 120, 145-156.	5.4	29
31	Graphene decorated with metal nanoparticles: Hydrogen sorption and related artefacts. Microporous and Mesoporous Materials, 2017, 250, 27-34.	2.2	22
32	Multilayered intercalation of 1-octanol into Brodie graphite oxide. Nanoscale, 2017, 9, 6929-6936.	2.8	27
33	Systematic evaluation of different types of graphene oxide in respect to variations in their in-plane modulus. Carbon, 2017, 114, 700-705.	5.4	44
34	Brodie vs Hummers graphite oxides for preparation of multi-layered materials. Carbon, 2017, 115, 430-440.	5.4	104
35	Graphene-based lithium ion capacitor with high gravimetric energy and power densities. Journal of Power Sources, 2017, 363, 422-427.	4.0	49
36	Stability and dye inclusion of graphene oxide/polyelectrolyte layer-by-layer self-assembled films in saline, acidic and basic aqueous solutions. Carbon, 2017, 111, 350-357.	5.4	15

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37	Synthesis of graphene nanoribbons inside boron nitride nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 2377-2379.	0.7	9
38	Comment on "Nanohole-Structured and Palladium-Embedded 3D Porous Graphene for Ultrahigh Hydrogen Storage and CO Oxidation Multifunctionalities". <i>ACS Nano</i> , 2016, 10, 9055-9056.	7.3	3
39	High-Pressure Study of Mn(BH ₄) ₂ Reveals a Stable Polymorph with High Hydrogen Density. <i>Chemistry of Materials</i> , 2016, 28, 274-283.	3.2	17
40	High-temperature transformations of coronene-based graphene nanoribbons encapsulated in SWNTs. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 2491-2495.	0.7	3
41	Hydrogen storage in bulk graphene-related materials. <i>Microporous and Mesoporous Materials</i> , 2015, 210, 46-51.	2.2	96
42	Delamination of graphite oxide in a liquid upon cooling. <i>Nanoscale</i> , 2015, 7, 12625-12630.	2.8	33
43	Hydrogen adsorption by perforated graphene. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 6594-6599.	3.8	59
44	Graphene-based technologies for energy applications, challenges and perspectives. <i>2D Materials</i> , 2015, 2, 030204.	2.0	74
45	Hydrogen storage in high surface area graphene scaffolds. <i>Chemical Communications</i> , 2015, 51, 15280-15283.	2.2	79
46	Structure of graphene oxide membranes in solvents and solutions. <i>Nanoscale</i> , 2015, 7, 15374-15384.	2.8	98
47	Porous Graphene Oxide/Diboronic Acid Materials: Structure and Hydrogen Sorption. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27179-27191.	1.5	49
48	The structure of graphene oxide membranes in liquid water, ethanol and water-ethanol mixtures. <i>Nanoscale</i> , 2014, 6, 272-281.	2.8	180
49	Graphene oxide hydration and solvation: an in situ neutron reflectivity study. <i>Nanoscale</i> , 2014, 6, 12151-12156.	2.8	32
50	Coronene Encapsulation in Single-Walled Carbon Nanotubes: Stacked Columns, Peapods, and Nanoribbons. <i>ChemPhysChem</i> , 2014, 15, 1660-1665.	1.0	28
51	Hydrogen-Driven Cage Unzipping of C ₆₀ into Nano-Graphenes. <i>Journal of Physical Chemistry C</i> , 2014, 118, 6504-6513.	1.5	21
52	Hydration of Bilayered Graphene Oxide. <i>Nano Letters</i> , 2014, 14, 3993-3998.	4.5	135
53	Effect of synthesis method on solvation and exfoliation of graphite oxide. <i>Carbon</i> , 2013, 52, 171-180.	5.4	148
54	Enormous Lattice Expansion of Hummers Graphite Oxide in Alcohols at Low Temperatures. <i>ACS Nano</i> , 2013, 7, 1395-1399.	7.3	66

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55	Selective Intercalation of Graphite Oxide by Methanol in Water/Methanol Mixtures. Journal of Physical Chemistry C, 2013, 117, 1963-1968.	1.5	51
56	Optical Properties of Graphene Nanoribbons Encapsulated in Single-Walled Carbon Nanotubes. ACS Nano, 2013, 7, 6346-6353.	7.3	82
57	Pressure-Induced Water Insertion in Synthetic Clays. Angewandte Chemie - International Edition, 2013, 52, 3891-3895.	7.2	23
58	Effect of Catalysts on the Reaction of C ₆₀ with Hydrogen. Fullerenes Nanotubes and Carbon Nanostructures, 2012, 20, 319-323.	1.0	3
59	Solvation of graphite oxide in water-methanol binary polar solvents. Physica Status Solidi (B): Basic Research, 2012, 249, 2568-2571.	0.7	15
60	Phase Transitions in Graphite Oxide Solvates at Temperatures Near Ambient. Journal of Physical Chemistry Letters, 2012, 3, 812-817.	2.1	56
61	Hydrogen-Driven Collapse of C ₆₀ Inside Single-Walled Carbon Nanotubes. Angewandte Chemie - International Edition, 2012, 51, 4435-4439.	7.2	8
62	Reaction of C ₆₀ with Hydrogen Gas: In Situ Monitoring and Pathways. Journal of Physical Chemistry C, 2011, 115, 11484-11492.	1.5	30
63	Low Temperature Phase Diagram of NH ₃ BH ₃ . Materials Research Society Symposia Proceedings, 2011, 1309, 101.	0.1	0
64	Hydration of Graphite Oxide in Electrolyte and Non-Electrolyte Solutions. Journal of Physical Chemistry C, 2011, 115, 24611-24614.	1.5	22
65	Synthesis of Graphene Nanoribbons Encapsulated in Single-Walled Carbon Nanotubes. Nano Letters, 2011, 11, 4352-4356.	4.5	174
66	Hydrogenation, Purification, and Unzipping of Carbon Nanotubes by Reaction with Molecular Hydrogen: Road to Graphene Nanoribbons. ACS Nano, 2011, 5, 5132-5140.	7.3	106
67	Comment to the "Response to "Hydrogen adsorption in Pt catalyst/MOF-5 materials" by Li et al.. Microporous and Mesoporous Materials, 2011, 139, 216-218.	2.2	16
68	Phase coexistence and hysteresis effects in the pressure-temperature phase diagram of NH ₃ BH ₃ . NH_3BH_3	1.1	19
69	Pressure-Induced Insertion of Liquid Acetone into the Graphite Oxide Structure. Journal of Physical Chemistry C, 2010, 114, 7004-7006.	1.5	26
70	Hydrogen adsorption in Pt catalyst/MOF-5 materials. Microporous and Mesoporous Materials, 2010, 135, 201-205.	2.2	62
71	High-temperature reactions of C ₆₀ with polycyclic aromatic hydrocarbons. Chemical Physics, 2010, 368, 49-57.	0.9	2
72	Cation Size and Anion Anisotropy in Structural Chemistry of Metal Borohydrides. The Peculiar Pressure Evolution of RbBH ₄ . Inorganic Chemistry, 2010, 49, 5285-5292.	1.9	16

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73	Fulleranes by Direct Reaction with Hydrogen Gas at Elevated Conditions. Carbon Materials, 2010, , 85-103.	0.2	5
74	Hydrogenation of C ₆₀ in Peapods: Physical Chemistry in Nano Vessels. Journal of Physical Chemistry C, 2009, 113, 8583-8587.	1.5	29
75	Pressure-Induced Insertion of Liquid Alcohols into Graphite Oxide Structure. Journal of the American Chemical Society, 2009, 131, 18445-18449.	6.6	74
76	Nanocarbons by High-Temperature Decomposition of Graphite Oxide at Various Pressures. Journal of Physical Chemistry C, 2009, 113, 11279-11284.	1.5	37
77	Thermal Decomposition of C ₆₀ H ₁₈ . Journal of Physical Chemistry C, 2009, 113, 13133-13138.	1.5	14
78	Synthesis and Structural Characterization of C ₇₀ H ₃₈ . Angewandte Chemie - International Edition, 2008, 47, 2796-2799.	7.2	16
79	Colossal Pressure-Induced Lattice Expansion of Graphite Oxide in the Presence of Water. Angewandte Chemie - International Edition, 2008, 47, 8268-8271.	7.2	109
80	Feasibility of H ₂ •THF•H ₂ O clathrate hydrates for hydrogen storage applications. International Journal of Hydrogen Energy, 2008, 33, 111-115.	3.8	44
81	High-pressure phase of NaBH ₄ : Crystal structure from synchrotron powder diffraction data. Physical Review B, 2007, 76, .	1.1	62
82	Formation of palladium fullerides and their thermal decomposition into palladium nanoparticles. Carbon, 2007, 45, 2564-2569.	5.4	18
83	Phase transitions in hydrogen storage compounds under pressure. Journal of Physics Condensed Matter, 2007, 19, 425201.	0.7	8
84	Reaction of Hydrogen Gas with C ₆₀ at Elevated Pressure and Temperature: Hydrogenation and Cage Fragmentation. Journal of Physical Chemistry A, 2006, 110, 8528-8534.	1.1	48
85	High-pressure study of NaAlH ₄ by Raman spectroscopy up to 17 GPa. High Pressure Research, 2006, 26, 165-173.	0.4	15
86	Temperature dependence of C ₆₀ Raman spectra up to 840 K. Solid State Communications, 2006, 140, 178-181.	0.9	10
87	Complex Hydrides Studied by Raman Spectroscopy and Thermal Conductivity Measurements under High Pressure. Materials Research Society Symposia Proceedings, 2006, 971, 1.	0.1	1
88	Composition of Hydrofullerene Mixtures Produced by C ₆₀ Reaction with Hydrogen Gas Revealed by High-Resolution Mass Spectrometry. Journal of Physical Chemistry B, 2005, 109, 12742-12747.	1.2	37
89	Synthesis of C ₅₉ H _x and C ₅₈ H _x Fullerenes Stabilized by Hydrogen. Journal of Physical Chemistry B, 2005, 109, 5403-5405.	1.2	32
90	Selective Synthesis of the C ₃ isomer of C ₆₀ H ₁₈ . Organic Letters, 2005, 7, 5557-5560.	2.4	28

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91	Hydrogen adsorption in C60 at pressures up to 2000 atm. Chemical Physics Letters, 2004, 397, 77-81.	1.2	9
92	Pressure-induced phase transformations in tetragonal and rhombohedral C60 polymers. High Temperatures - High Pressures, 2003, 35/36, 47-53.	0.3	2
93	Deposition and characterisation of NbxC60 films. Thin Solid Films, 2002, 405, 42-49.	0.8	17
94	Preparation and characterization of C60S16 and C70S48 thin films. Thin Solid Films, 1999, 350, 113-118.	0.8	13
95	Phase Transition C60 \rightarrow C60*4C6H6 in Liquid Benzene. Journal of Physical Chemistry B, 1997, 101, 9679-9681.	1.2	18