Alexander V Soldatov

List of Publications by Year
in descending order

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37 papers	519 citations	759233 12 h-index	677142 22 g-index
38 all docs	38 docs citations	38 times ranked	756 citing authors

#	Article	IF	Citations
1	Structure and Properties of the Fullerene Dimer C140Produced by Pressure Treatment of C70. Journal of Physical Chemistry B, 2000, 104, 4101-4110.	2.6	63
2	C60one- and two-dimensional polymers, dimers, and hard fullerite: Thermal expansion, anharmonicity, and kinetics of depolymerization. Physical Review B, 1999, 60, 16920-16927.	3.2	51
3	Discovery of carbon-based strongest and hardest amorphous material. National Science Review, 2022, 9, nwab140.	9.5	49
4	Advanced microscopy and spectroscopy reveal the adsorption and clustering of Cu(<scp>ii</scp>) onto TEMPO-oxidized cellulose nanofibers. Nanoscale, 2017, 9, 7419-7428.	5.6	45
5	Structure and physical properties of nanoclustered graphene synthesized from C60 fullerene under high pressure and high temperature. Applied Physics Letters, 2014, 104, .	3.3	34
6	Calibration of the ruby pressure scale to 150 GPa. Physica Status Solidi (B): Basic Research, 2007, 244, 460-467.	1.5	30
7	Multiscale Characterization of Single-Walled Carbon Nanotube/Polymer Composites by Coupling Raman and Brillouin Spectroscopy. Journal of Physical Chemistry C, 2009, 113, 17648-17654.	3.1	28
8	Structure and properties of superelastic hard carbon phase created in fullerene-metal composites by high temperature-high pressure treatment. Journal of Applied Physics, 2012, 111, .	2.5	25
9	Stability of carbon nanotubes to laser irradiation probed by Raman spectroscopy. Physica Status Solidi (B): Basic Research, 2008, 245, 2212-2215.	1.5	23
10	Narrow-gap, semiconducting, superhard amorphous carbon with high toughness, derived from C60 fullerene. Cell Reports Physical Science, 2021, 2, 100575.	5.6	18
11	Probing structural stability of double-walled carbon nanotubes at high non-hydrostatic pressure by Raman spectroscopy. High Pressure Research, 2011, 31, 186-190.	1.2	17
12	Probing structural integrity of single walled carbon nanotubes by dynamic and static compression. Physica Status Solidi - Rapid Research Letters, 2014, 8, 935-938.	2.4	14
13	Covalent functionalization of fewâ€wall carbon nanotubes by ferrocene derivatives for bioelectrochemical devices. Physica Status Solidi (B): Basic Research, 2012, 249, 2349-2352.	1.5	12
14	Molecular rotation in C70 at high pressures: A thermal conductivity study. Journal of Physics and Chemistry of Solids, 1996, 57, 1371-1375.	4.0	11
15	Comparative Raman Study of the 1D and 2D Polymeric Phases of C60 under Pressure. Physica Status Solidi (B): Basic Research, 1999, 215, 443-448.	1.5	11
16	The effect of shock wave compression on double wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2012, 249, 2378-2381.	1.5	10
17	Raman modes of the two-dimensional tetragonal polymeric phase of C60 under high pressure. Journal of Chemical Physics, 2001, 114, 9099-9104.	3.0	8
18	Laser-induced damage and destruction of HiPCO nanotubes in different gas environments. Physica Status Solidi (B): Basic Research, 2011, 248, 2540-2543.	1.5	7

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19	Preferential functionalisation of carbon nanotubes probed by Raman spectroscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2343-2346.	2.7	6
20	In situ electrical conductivity and Raman study of C₆₀ tetragonal polymer at high pressures up to 30â€‰GPa. Physica Status Solidi (B): Basic Research, 2010, 247, 3068-3071.	1.5	6
21	High-Pressure Synthesized Nanostructural ${hbox {MgB}}_{2}$ Materials With High Performance of Superconductivity, Suitable for Fault Current Limitation and Other Applications. IEEE Transactions on Applied Superconductivity, 2011, 21, 2694-2697.	1.7	6
22	The physical properties of high-pressure polymerized C60. Journal of Physics and Chemistry of Solids, 1997, 58, 1881-1885.	4.0	5
23	Covalent Functionalization of HiPco Singleâ€Walled Carbon Nanotubes: Differences in the Oxidizing Action of H₂SO₄ and HNO₃ during a Soft Oxidation Process. ChemPhysChem, 2015, 16, 2692-2701.	2.1	5
24	Tunable electrical properties of C60Â·m-xylene and the formation of semiconducting ordered amorphous carbon clusters under pressure. Nano Research, 2022, 15, 3788-3793.	10.4	5
25	Accurate control of the covalent functionalization of single-walled carbon nanotubes for the electro-enzymatically controlled oxidation of biomolecules. Beilstein Journal of Nanotechnology, 2018, 9, 2750-2762.	2.8	4
26	Fragmentation and structural transitions of few-layer graphene under high shear stress. Applied Physics Letters, 2021, 118, .	3.3	4
27	Electronic structure studies of pressure-polymerized C60. Synthetic Metals, 1999, 103, 2454-2455.	3.9	3
28	Effects on Raman spectra of functionalisation of single walled carbon nanotubes by nitric acid. Physica Status Solidi (B): Basic Research, 2011, 248, 2552-2555.	1.5	3
29	Mild covalent functionalization of single-walled carbon nanotubes highlighted by spectroscopic ellipsometry. Carbon, 2016, 96, 557-564.	10.3	3
30	Raman study of inhomogeneities in carbon nanotube distribution in CNTâ€“PMMA composites. Physica Status Solidi (B): Basic Research, 2010, 247, 2810-2813.	1.5	2
31	Singleâ€Walled Carbon Nanotubes Shockâ€Compressed to 0.5â€‰Mbar. Physica Status Solidi (B): Basic Research, 2017, 254, 1700315.	1.5	2
32	2D polymerization and doping of fullerenes under pressure. High Pressure Research, 2000, 18, 139-143.	1.2	1
33	High pressure study of the 2D polymeric phase of C60by means of raman spectroscopy. High Pressure Research, 2000, 18, 145-151.	1.2	1
34	Electrocatalytic effect towards NADH induced by HiPco single-walled carbon nanotubes covalently functionalized by ferrocene derivatives. Materials Research Society Symposia Proceedings, 2013, 1531, 1.	0.1	1
35	Raman and electron microscopy study of C₆₀collapse/transformation to a nanoclustered graphene-based disordered carbon phase at high pressure/temperature. Physica Status Solidi (B): Basic Research, 2015, 252, 2626-2629.	1.5	1
36	Singleâ€Walled Carbon Nanotubes Shockâ€Compressed to 0.5â€‰Mbar (Phys. Status Solidi B 11/2017). Physica Status Solidi (B): Basic Research, 2017, 254, 1770259.	1.5	1

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37	Thermal Defect Modulation and Functional Performance: A Case Study on ZnOâ€“rGO Nanocomposites. Physica Status Solidi (B): Basic Research, 2019, 256, 1900239.	1.5	1