

Alexander V Soldatov

List of Publications by Year in descending order

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759233

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38
all docs

38
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38
times ranked

756
citing authors

#	ARTICLE	IF	CITATIONS
1	Discovery of carbon-based strongest and hardest amorphous material. National Science Review, 2022, 9, nwab140.	9.5	49
2	Tunable electrical properties of C ₆₀ -m-xylene and the formation of semiconducting ordered amorphous carbon clusters under pressure. Nano Research, 2022, 15, 3788-3793.	10.4	5
3	Fragmentation and structural transitions of few-layer graphene under high shear stress. Applied Physics Letters, 2021, 118, .	3.3	4
4	Narrow-gap, semiconducting, superhard amorphous carbon with high toughness, derived from C ₆₀ fullerene. Cell Reports Physical Science, 2021, 2, 100575.	5.6	18
5	Thermal Defect Modulation and Functional Performance: A Case Study on ZnO@rGO Nanocomposites. Physica Status Solidi (B): Basic Research, 2019, 256, 1900239.	1.5	1
6	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
7	Advanced microscopy and spectroscopy reveal the adsorption and clustering of Cu(II) onto TEMPO-oxidized cellulose nanofibers. Nanoscale, 2017, 9, 7419-7428.	5.6	45
8	Single-Walled Carbon Nanotubes Shock-Compressed to 0.5 Mbar. Physica Status Solidi (B): Basic Research, 2017, 254, 1700315.	1.5	2
9	Single-Walled Carbon Nanotubes Shock-Compressed to 0.5 Mbar (Phys. Status Solidi B 11/2017). Physica Status Solidi (B): Basic Research, 2017, 254, 1770259.	1.5	1
10	Mild covalent functionalization of single-walled carbon nanotubes highlighted by spectroscopic ellipsometry. Carbon, 2016, 96, 557-564.	10.3	3
11	Covalent Functionalization of HiPco Single-Walled Carbon Nanotubes: Differences in the Oxidizing Action of H ₂ SO ₄ and HNO ₃ during a Soft Oxidation Process. ChemPhysChem, 2015, 16, 2692-2701.	2.1	5
12	Raman and electron microscopy study of C ₆₀ collapse/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
13	Structure and physical properties of nanoclustered graphene synthesized from C ₆₀ fullerene under high pressure and high temperature. Applied Physics Letters, 2014, 104, .	3.3	34
14	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
15	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
16	Covalent functionalization of few-wall carbon nanotubes by ferrocene derivatives for bioelectrochemical devices. Physica Status Solidi (B): Basic Research, 2012, 249, 2349-2352.	1.5	12
17	The effect of shock wave compression on double wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2012, 249, 2378-2381.	1.5	10
18	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

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19	High-Pressure Synthesized Nanostructural 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
20	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
21	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
22	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
23	Raman study of inhomogeneities in carbon nanotube distribution in CNT/PMMA composites. Physica Status Solidi (B): Basic Research, 2010, 247, 2810-2813.	1.5	2
24	In situ electrical conductivity and Raman study of C_{60} tetragonal polymer at high pressures up to 30 GPa. Physica Status Solidi (B): Basic Research, 2010, 247, 3068-3071.	1.5	6
25	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
26	Stability of carbon nanotubes to laser irradiation probed by Raman spectroscopy. Physica Status Solidi (B): Basic Research, 2008, 245, 2212-2215.	1.5	23
27	Preferential functionalisation of carbon nanotubes probed by Raman spectroscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2343-2346.	2.7	6
28	Calibration of the ruby pressure scale to 150 GPa. Physica Status Solidi (B): Basic Research, 2007, 244, 460-467.	1.5	30
29	Raman modes of the two-dimensional tetragonal polymeric phase of C_{60} under high pressure. Journal of Chemical Physics, 2001, 114, 9099-9104.	3.0	8
30	2D polymerization and doping of fullerenes under pressure. High Pressure Research, 2000, 18, 139-143.	1.2	1
31	High pressure study of the 2D polymeric phase of C_{60} by means of Raman spectroscopy. High Pressure Research, 2000, 18, 145-151.	1.2	1
32	Structure and Properties of the Fullerene Dimer C_{140} Produced by Pressure Treatment of C_{70} . Journal of Physical Chemistry B, 2000, 104, 4101-4110.	2.6	63
33	Comparative Raman Study of the 1D and 2D Polymeric Phases of C_{60} under Pressure. Physica Status Solidi (B): Basic Research, 1999, 215, 443-448.	1.5	11
34	C_{60} one- 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
35	Electronic structure studies of pressure-polymerized C_{60} . Synthetic Metals, 1999, 103, 2454-2455.	3.9	3
36	The physical properties of high-pressure polymerized C_{60} . Journal of Physics and Chemistry of Solids, 1997, 58, 1881-1885.	4.0	5

#	ARTICLE	IF	CITATIONS
37	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