

M Yu Popov

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67

papers

1,753

citations

20

h-index

41

g-index

71

ext. papers

1,912

ext. citations

2.9

avg, IF

4.19

L-index

#	Paper	IF	Citations
67	High-pressure polymerized phases of C 60. <i>Carbon</i> , 1998 , 36, 319-343	10.4	245
66	Ultrahard and superhard carbon phases produced from C60 by heating at high pressure: structural and Raman studies. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995 , 205, 208-216	2.3	138
65	Superhard phase composed of single-wall carbon nanotubes. <i>Physical Review B</i> , 2002 , 65,	3.3	126
64	Polymerization of nitrogen in sodium azide. <i>Journal of Chemical Physics</i> , 2004 , 120, 10618-23	3.9	120
63	Is C60 fullerite harder than diamond?. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994 , 188, 281-286	2.3	120
62	Ultrahard and superhard phases of fullerite C60: Comparison with diamond on hardness and wear. <i>Diamond and Related Materials</i> , 1998 , 7, 427-431	3.5	112
61	Phase transformations in solid C60 at high-pressure-high-temperature treatment and the structure of 3D polymerized fullerites. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996 , 220, 149-157	2.3	108
60	Thermoelectric properties of Bi _{0.5} Sb _{1.5} Te ₃ /C60 nanocomposites. <i>Physical Review B</i> , 2012 , 86,	3.3	56
59	Nano-sclerometry measurements of superhard materials and diamond hardness using scanning force microscope with the ultrahard fullerite C60 tip. <i>Journal of Materials Research</i> , 1997 , 12, 3109-3114	2.5	53
58	Structures and physical properties of superhard and ultrahard 3D polymerized fullerites created from solid C60 by high pressure high temperature treatment. <i>Carbon</i> , 1998 , 36, 665-670	10.4	51
57	Synthesis of ultrahard fullerite with a catalytic 3D polymerization reaction of C60. <i>Carbon</i> , 2014 , 76, 250-256	10.4	42
56	Superhard phase of single wall carbon nanotube: comparison with fullerite C60 and diamond. <i>Diamond and Related Materials</i> , 2003 , 12, 833-839	3.5	41
55	C60-doping of nanostructured Bi ₂ Sb ₃ Te ₃ thermoelectrics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 2783-2789	1.6	40
54	Pressure measurements from Raman spectra of stressed diamond anvils. <i>Journal of Applied Physics</i> , 2004 , 95, 5509-5514	2.5	39
53	Raman Spectra and Bulk Modulus of Nanodiamond in a Size Interval of 2-5 nm. <i>Nanoscale Research Letters</i> , 2017 , 12, 561	5	36
52	Hard disordered phases produced at high-pressure-high-temperature treatment of C60. <i>Carbon</i> , 1998 , 36, 1263-1267	10.4	36
51	Composites of Bi ₂ Sb ₃ Te ₃ nanocrystals and fullerene molecules for thermoelectricity. <i>Journal of Solid State Chemistry</i> , 2012 , 193, 64-70	3.3	29

50	Raman and IR study of high-pressure atomic phase of nitrogen. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005 , 334, 317-325	2.3	29
49	A new carbon structure formed at MeV neutron irradiation of diamond: structural and spectroscopic investigations. <i>Diamond and Related Materials</i> , 1999 , 8, 1285-1290	3.5	24
48	Fulleride of aluminum nanoclusters. <i>Journal of Applied Physics</i> , 2010 , 108, 094317	2.5	20
47	Pressure-Induced Transformation of Graphite and Diamond to Onions. <i>Crystals</i> , 2018 , 8, 68	2.3	19
46	The Effect of Severe Plastic Deformations on Phase Transitions and Structure of Solids. <i>Materials Transactions</i> , 2019 , 60, 1500-1505	1.3	18
45	Phase diagram of carbon and the factors limiting the quantity and size of natural diamonds. <i>Nanotechnology</i> , 2018 , 29, 115603	3.4	18
44	Stress-induced phase transitions in diamond. <i>High Pressure Research</i> , 2010 , 30, 670-678	1.6	18
43	Cu ₆₀ nanocomposite with suppressed recrystallization. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 105, 45-48	2.6	17
42	Electrical conductivity of nanostructured and C60-modified aluminum. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 107, 863-869	2.6	16
41	Thermoelectric properties of bismuth telluride nanocomposites with fullerene. <i>Semiconductors</i> , 2011 , 45, 1194-1198	0.7	16
40	Boron carbide nanoparticles for high-hardness ceramics: Crystal lattice defects after treatment in a planetary ball mill. <i>Journal of the European Ceramic Society</i> , 2017 , 37, 1349-1353	6	15
39	Nanostructured superhard carbon phase obtained under high pressure with shear deformation from single-wall nanotubes HiPco. <i>Physica B: Condensed Matter</i> , 2006 , 382, 58-64	2.8	15
38	The unexpected stability of multiwall nanotubes under high pressure and shear deformation. <i>Applied Physics Letters</i> , 2016 , 109, 081904	3.4	13
37	Toward the Ultra-incompressible Carbon Materials. Computational Simulation and Experimental Observation. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 2147-52	6.4	12
36	Ultrasmall diamond nanoparticles with unusual incompressibility. <i>Diamond and Related Materials</i> , 2019 , 96, 52-57	3.5	11
35	Mutual transformation between crystalline phases in silicon after treatment in a planetary mill: HRTEM studies. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2016 , 72, 733-737	1.8	10
34	Transformation of multiwall carbon nanotubes to onions with layers cross-linked by sp ³ bonds under high pressure and shear deformation. <i>AIP Advances</i> , 2017 , 7, 085218	1.5	8
33	Transformation-deformation bands in C60 after the treatment in a shear diamond anvil cell. <i>Materials Research Express</i> , 2016 , 3, 045601	1.7	8

32	Transformation of diamond to fullerene-type onions at pressure 70 GPa and temperature 2400 K. <i>Nanotechnology</i> , 2020 , 31, 315602	3.4	7
31	Catalytic 3D polymerization of C60. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2018 , 26, 465-470	1.8	7
30	C60 three-dimensional polymerization by impulse heating effect. <i>Journal of Applied Physics</i> , 2014 , 115, 153506	2.5	7
29	A catalytic depolymerization of ultrahard fullerite. <i>Journal of Materials Research</i> , 2015 , 30, 1772-1778	2.5	5
28	High-hardness ceramics based on boron carbide fullerite derivatives. <i>Physics of the Solid State</i> , 2017 , 59, 327-330	0.8	4
27	Transport properties of nanocomposite thermoelectric materials based on Si and Ge. <i>Physics of the Solid State</i> , 2015 , 57, 605-612	0.8	4
26	PROPERTIES OF SUPERHARD PHASE OF SINGLE WALL CARBON NANOTUBE IN COMPARISON WITH FULLERITE C60 AND DIAMOND. <i>High Pressure Research</i> , 2003 , 23, 265-269	1.6	4
25	Plastic deformation of diamond by mechanical twinning at temperatures significantly lower than Debye temperature. <i>Chemical Physics Letters</i> , 2019 , 730, 138-140	2.5	3
24	Unique mechanical properties of fullerite derivatives synthesized with a catalytic polymerization reaction. <i>MRS Communications</i> , 2015 , 5, 71-75	2.7	3
23	Synthesis of carbon nanostructures in an RF induction plasmatron. <i>Technical Physics</i> , 2015 , 60, 730-735	0.5	3
22	Irreversible high pressure phase transformation of onion-like carbon due to shell confinement. <i>Diamond and Related Materials</i> , 2020 , 107, 107908	3.5	3
21	Effect of a fullerene C60 addition on the strength properties of nanocrystalline copper and aluminum under shock-wave loading. <i>Technical Physics</i> , 2014 , 59, 378-383	0.5	3
20	Superhard phase of single-wall carbon nanotube. <i>Physica B: Condensed Matter</i> , 2002 , 323, 262-264	2.8	3
19	A ceramic nanocomposite with enhanced hardness based on corundum modified with carbon. <i>Technical Physics Letters</i> , 2016 , 42, 1064-1066	0.7	3
18	Peculiarities of the Twinning in Silicon during Ball Milling in the Presence of Two Different Materials. <i>Symmetry</i> , 2018 , 10, 200	2.7	2
17	Plasticity of diamond at room temperature and determination of its hardness using an atomic force microscope with an ultrahard C60 fullerite tip. <i>Technical Physics Letters</i> , 1997 , 23, 546-547	0.7	2
16	The effect of C60 fullerene polymerization processes on the mechanical properties of clusters forming ultrahard structures of 3D C60 polymers. <i>Diamond and Related Materials</i> , 2022 , 124, 108911	3.5	2
15	Structure of Germanium Treated in a Planetary Mill. <i>Physics of the Solid State</i> , 2020 , 62, 1765-1768	0.8	2

14	Phase diagram of carbon. <i>Materials Today: Proceedings</i> , 2018 , 5, 26179-26182	1.4	2
13	The influence of the admixture of the fullerene C60 on the strength properties of aluminum and copper under shock-wave loading. <i>Journal of Physics: Conference Series</i> , 2014 , 500, 112008	0.3	1
12	Synthesis of carbon onionlike nanostructures from methane in plasma flow of induction plasmatron. <i>Technical Physics Letters</i> , 2015 , 41, 1038-1040	0.7	1
11	Thermoelectric properties of nanostructured Bi-Sb-Te doped with C60 2012 ,		1
10	C60 fullerene decoration of carbon nanotubes. <i>Journal of Experimental and Theoretical Physics</i> , 2016 , 123, 985-990	1	1
9	Transformation of boron nitride under high pressure and shear deformation. <i>Materials Today: Proceedings</i> , 2018 , 5, 26124-26127	1.4	1
8	Intermediate carbon phase. New experimental data and atomic model. <i>Diamond and Related Materials</i> , 2022 , 123, 108825	3.5	0
7	Insights into fullerene polymerization under the high pressure: The role of endohedral Sc dimer. <i>Carbon</i> , 2022 , 189, 37-45	10.4	0
6	Impulse laser cutting of diamond accompanied by phase transitions to fullerene-type onions. <i>Diamond and Related Materials</i> , 2021 , 113, 108281	3.5	0
5	Structure of boron carbide after applying shear deformations under a pressure to 55 GPa. <i>Physics of the Solid State</i> , 2017 , 59, 929-933	0.8	
4	Properties and Applications of Superhard and Ultrahard Fullerites 2002 , 223-233		
3	 55 GPa. <i>Physics of the Solid State</i> , 2017 , 59, 907	0	
2	Twinning formation in nanodiamonds after treatment in a planetary mill: HRTEM studies. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 693, 012022	0.4	
1	High-Pressure Si Phases and the Mutual Orientation of Their Structures. HRTEM Studies. <i>Physics of the Solid State</i> , 2021 , 63, 844-849	0.8	