

# Vadim S Sedov

## List of Publications by Year in descending order

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57  
papers

805  
citations

471509

17  
h-index

552781

26  
g-index

59  
all docs

59  
docs citations

59  
times ranked

529  
citing authors

#	ARTICLE	IF	CITATIONS
1	GaN-based heterostructures with CVD diamond heat sinks: A new fabrication approach towards efficient electronic devices. <i>Applied Materials Today</i> , 2022, 26, 101338.	4.3	15
2	Diamond-germanium composite films grown by microwave plasma CVD. <i>Carbon</i> , 2022, 190, 10-21.	10.3	17
3	Cerium-doped gadolinium-scandium-aluminum garnet powders: synthesis and use in X-ray luminescent diamond composites. <i>Ceramics International</i> , 2022, 48, 12962-12970.	4.8	12
4	Laser Ablated Nanocrystalline Diamond Membrane for Infrared Applications. <i>Sensors</i> , 2022, 22, 829.	3.8	3
5	CVD diamond-SiC composite films: Structure and electrical properties. <i>Diamond and Related Materials</i> , 2022, 125, 108975.	3.9	7
6	Luminescent diamond composites. <i>Functional Diamond</i> , 2022, 2, 53-63.	3.8	9
7	Femtosecond and nanosecond laser polishing of rough polycrystalline diamond. <i>Laser Physics</i> , 2022, 32, 084003.	1.2	4
8	Low-temperature Silicon Vacancy Luminescence of Individual Chemical Vapor Deposition Nanodiamonds Grown by Seeding and Spontaneous Nucleation. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000274.	1.8	7
9	Diamond composite with embedded YAG:Ce nanoparticles as a source of fast X-ray luminescence in the visible and near-IR range. <i>Carbon</i> , 2021, 174, 52-58.	10.3	14
10	Epitaxial growth of 3C-SiC film by microwave plasma chemical vapor deposition in H <sub>2</sub> -CH <sub>4</sub> -SiH <sub>4</sub> mixtures: Optical emission spectroscopy study. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, 023002.	2.1	5
11	CVD synthesis of multi-layered polycrystalline diamond films with reduced roughness using time-limited injections of N <sub>2</sub> gas. <i>Diamond and Related Materials</i> , 2021, 114, 108333.	3.9	14
12	Fabry-Perot Pressure Sensors Based on Polycrystalline Diamond Membranes. <i>Materials</i> , 2021, 14, 1780.	2.9	8
13	X-ray luminescence of diamond composite films containing yttrium-aluminum garnet nanoparticles with varied composition of Sc <sup>3+</sup> Ce doping. <i>Ceramics International</i> , 2021, 47, 13922-13926.	4.8	6
14	A new approach to precise mapping of local temperature fields in submicrometer aqueous volumes. <i>Scientific Reports</i> , 2021, 11, 14228.	3.3	20
15	Microscopic Insight into the Inhomogeneous Broadening of Zero-Phonon Lines of GeV <sup>+</sup> Color Centers in Chemical Vapor Deposition Diamond Films Synthesized from Gaseous Germane. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17774-17785.	3.1	9
16	Propagation of Laser-Induced Hypersound Waves in Polycrystalline Diamond with Submicron Crystallites. <i>Journal of Russian Laser Research</i> , 2021, 42, 580-585.	0.6	2
17	Substrates with Diamond Heat Sink for Epitaxial GaN Growth. <i>Technical Physics Letters</i> , 2021, 47, 353-356.	0.7	0
18	Deposition of diamond films on Si by microwave plasma CVD in varied CH <sub>4</sub> -H <sub>2</sub> mixtures: Reverse nanocrystalline-to-microcrystalline structure transition at very high methane concentrations. <i>Diamond and Related Materials</i> , 2020, 109, 108072.	3.9	37

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19	Effect of Substrate Holder Design on Stress and Uniformity of Large-Area Polycrystalline Diamond Films Grown by Microwave Plasma-Assisted CVD. <i>Coatings</i> , 2020, 10, 939.	2.6	21
20	Thin Diamond Film on Silicon Substrates for Pressure Sensor Fabrication. <i>Materials</i> , 2020, 13, 3697.	2.9	11
21	Laser-Assisted Formation of High-Quality Polycrystalline Diamond Membranes. <i>Journal of Russian Laser Research</i> , 2020, 41, 321-326.	0.6	8
22	Diamond-Rare Earth Composites with Embedded NaGdF <sub>4</sub> :Eu Nanoparticles as Robust Photo- and X-ray-Luminescent Materials for Radiation Monitoring Screens. <i>ACS Applied Nano Materials</i> , 2020, 3, 1324-1331.	5.0	20
23	Diamond-NaGdF <sub>4</sub> : Eu and Diamond-YAG: Ce composites as photo- and X-Ray luminescent materials for photonics. , 2020, , .		0
24	Co-deposition of diamond and $\hat{I}^2$ -SiC by microwave plasma CVD in H <sub>2</sub> -CH <sub>4</sub> -SiH <sub>4</sub> gas mixtures. <i>Diamond and Related Materials</i> , 2019, 98, 107520.	3.9	18
25	Group growth of polycrystalline diamond coating by MPCVD technique on a hard alloy tool with a thin blade. <i>Journal of Physics: Conference Series</i> , 2019, 1353, 012072.	0.4	1
26	Nondestructive diagnostics of diamond coatings of hard-alloy cutters. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	2
27	A comparative study of the growth dynamics and tribological properties of nanocrystalline diamond films deposited on the (110) single crystal diamond and Si(100) substrates. <i>Diamond and Related Materials</i> , 2019, 92, 159-167.	3.9	19
28	Monoisotopic Ensembles of Silicon-Vacancy Color Centers with Narrow-Line Luminescence in Homoepitaxial Diamond Layers Grown in H <sub>2</sub> -CH <sub>4</sub> -SiH <sub>4</sub> Gas Mixtures ( $x = 28$ ). <i>Tj ETQq0 0 0 TgBT /Over</i>	6.6	29
29	Luminescent diamond window of the sandwich type for X-ray visualization. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	9
30	Nanocarbon colloid produced by electro-spark discharge in ethanol for seeding the substrates in MPACVD synthesis of polycrystalline diamond films. <i>Journal of Physics: Conference Series</i> , 2018, 1094, 012030.	0.4	1
31	Growth of polycrystalline and single-crystal CVD diamonds with bright photoluminescence of Ge-V color centers using germane GeH <sub>4</sub> as the dopant source. <i>Diamond and Related Materials</i> , 2018, 90, 47-53.	3.9	39
32	Fluorescence and Raman Spectroscopy of Doped Nanodiamonds. <i>Journal of Applied Spectroscopy</i> , 2018, 85, 295-299.	0.7	1
33	Diamond-fluoride luminescent film composite.. , 2018, , .		0
34	DD•DDCD“D•DDzD»D®DceD`DD•DjD D•DDCD«D•DšDzDceDŸDzD—D`DcD« DD•DžDjDDzD'D•DŸDzD»D`DšDD`DpDšDD»D•DšD•DjDš		
35	Diamond-EuF <sub>3</sub> nanocomposites with bright orange photoluminescence. <i>Diamond and Related Materials</i> , 2017, 72, 47-52.	3.9	33
36	Polycarbynes: A new synthetic approach and application to the nucleation of CVD diamond. <i>Diamond and Related Materials</i> , 2017, 74, 65-69.	3.9	2

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37	Placeholder design for deposition of uniform diamond coatings on WC-Co substrates by microwave plasma CVD for efficient turning application. <i>Diamond and Related Materials</i> , 2017, 75, 169-175.	3.9	24
38	Optical Magnetism and Fundamental Modes of Nanodiamonds. <i>ACS Photonics</i> , 2017, 4, 1153-1158.	6.6	26
39	Using Si-doped diamond plate of sandwich type for spatial profiling of laser beam. <i>Laser Physics Letters</i> , 2017, 14, 026003.	1.4	2
40	Temperature quenching of the luminescence of SiV centers in CVD diamond films. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2017, 81, 1154-1158.	0.6	3
41	Microwave CVD deposition and properties of nano / microcrystalline diamond multilayer coatings on tungsten carbide cutting tools. , 2017, , .		4
42	Application of Raman Spectroscopy for Analyzing Diamond Coatings on a Hard Alloy. <i>Journal of Applied Spectroscopy</i> , 2017, 84, 312-318.	0.7	3
43	SiV Color Centers in Si-doped Isotopically Enriched <sup>12</sup> C and <sup>13</sup> C CVD Diamonds. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1700198.	1.8	14
44	Effect of crystal structure on the tribological properties of diamond coatings on hard-alloy cutting tools. <i>Journal of Friction and Wear</i> , 2017, 38, 252-258.	0.5	8
45	Morphology of Diamond Layers Grown on Different Facets of Single Crystal Diamond Substrates by a Microwave Plasma CVD in CH <sub>4</sub> -H <sub>2</sub> -N <sub>2</sub> Gas Mixtures. <i>Crystals</i> , 2017, 7, 166.	2.2	24
46	Growth of nano-crystalline diamond on single-crystalline diamond by CVD method. <i>Bulletin of the Lebedev Physics Institute</i> , 2016, 43, 378-381.	0.6	2
47	Color Centers in Si-doped Diamond Films. <i>Journal of Applied Spectroscopy</i> , 2016, 83, 229-233.	0.7	4
48	Precise control of photoluminescence of silicon-vacancy color centers in homoepitaxial single-crystal diamond: evaluation of efficiency of Si doping from gas phase. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	16
49	Size-dependent luminescence of color centers in composite nanodiamonds. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2600-2605.	1.8	23
50	Photoluminescence of SiV centers in single crystal CVD diamond <i>in situ</i> doped with Si from silane. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2525-2532.	1.8	65
51	Growth dynamics of nanocrystalline diamond films produced by microwave plasma enhanced chemical vapor deposition in methane/hydrogen/air mixture: Scaling analysis of surface morphology. <i>Diamond and Related Materials</i> , 2015, 58, 172-179.	3.9	20
52	Observation of the Ge-vacancy color center in microcrystalline diamond films. <i>Bulletin of the Lebedev Physics Institute</i> , 2015, 42, 165-168.	0.6	51
53	Si-doped nano- and microcrystalline diamond films with controlled bright photoluminescence of silicon-vacancy color centers. <i>Diamond and Related Materials</i> , 2015, 56, 23-28.	3.9	66
54	Photoluminescence of Si-vacancy color centers in diamond films grown in microwave plasma in methane-hydrogen-silane mixtures. <i>Bulletin of the Lebedev Physics Institute</i> , 2014, 41, 359-363.	0.6	7

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55	Stimulation of the diamond nucleation on silicon substrates with a layer of a polymeric precursor in deposition of diamond films by microwave plasma. <i>Journal of Superhard Materials</i> , 2012, 34, 37-43.	1.2	2
56	Gas-phase growth of silicon-doped luminescent diamond films and isolated nanocrystals. <i>Bulletin of the Lebedev Physics Institute</i> , 2011, 38, 291-296.	0.6	24
57	Growth of Si-Doped Polycrystalline Diamond Films on AlN Substrates by Microwave Plasma Chemical Vapor Deposition. <i>Journal of Coating Science and Technology</i> , 0, , 38-45.	0.3	13