Oleg BabÄenko

List of Publications by Year
in descending order

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63	1,001	430874	501196
papers	citations	18 h-index	28 g-index

64	64	64	1143
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanostructured three-dimensional thin film silicon solar cells with very high efficiency potential. Applied Physics Letters, 2011, 98, .	3.3	92
2	Linear antenna microwave plasma CVD deposition of diamond films over large areas. Vacuum, 2012, 86, 776-779.	3.5	89
3	Nanomolar Hydrogen Peroxide Detection Using Horseradish Peroxidase Covalently Linked to Undoped Nanocrystalline Diamond Surfaces. Langmuir, 2012, 28, 587-592.	3.5	48
4	Low temperature diamond growth by linear antenna plasma CVD over large area. Physica Status Solidi (B): Basic Research, 2012, 249, 2600-2603.	1.5	44
5	Osteogenic cell differentiation on H-terminated and O-terminated nanocrystalline diamond films. International Journal of Nanomedicine, 2015, 10, 869.	6.7	41
6	Nanocarbon Allotropes-Graphene and Nanocrystalline Diamond-Promote Cell Proliferation. Small, 2016, 12, 2499-2509.	10.0	27
7	Effective Extraction of Photoluminescence from a Diamond Layer with a Photonic Crystal. ACS Nano, 2011, 5, 346-350.	14.6	26
8	Comparative study on dry etching of polycrystalline diamond thin films. Vacuum, 2012, 86, 799-802.	3.5	26
9	Controlled oxygen plasma treatment of single-walled carbon nanotube films improves osteoblastic cells attachment and enhances their proliferation. Carbon, 2011, 49, 2926-2934.	10.3	25
10	Seeding of polymer substrates for nanocrystalline diamond film growth. Diamond and Related Materials, 2009, 18, 734-739.	3.9	24
11	Preparation and optical properties of nanocrystalline diamond coatings for infrared planar waveguides. Thin Solid Films, 2016, 618, 130-133.	1.8	23
12	Design and fabrication of piezoresistive strain gauges based on nanocrystalline diamond layers. Vacuum, 2012, 86, 689-692.	3.5	22
13	Fabrication of diamond nanorods for gas sensing applications. Applied Surface Science, 2010, 256, 5602-5605.	6.1	21
14	Human osteoblast-like SAOS-2 cells on submicron-scale fibers coated with nanocrystalline diamond films. Materials Science and Engineering C, 2021, 121, 111792.	7.3	21
15	Toward surfaceâ€friendly treatment of seeding layer and selectedâ€area diamond growth. Physica Status Solidi (B): Basic Research, 2010, 247, 3026-3029.	1.5	20
16	Linear antenna microwave plasma CVD diamond deposition at the edge of noâ€growth region of Cï£¿Hï£¿O ternary diagram. Physica Status Solidi (B): Basic Research, 2012, 249, 2612-2615.	1.5	20
17	Diamond photonic crystal slab: Leaky modes and modified photoluminescence emission of surface-deposited quantum dots. Scientific Reports, 2012, 2, 914.	3.3	19
18	Carbide-free one-zone sulfurization method grows thin MoS2 layers on polycrystalline CVD diamond. Scientific Reports, 2019, 9, 2001.	3.3	19

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19	Study on cellular adhesion of human osteoblasts on nanoâ€structured diamond films. Physica Status Solidi (B): Basic Research, 2009, 246, 2774-2777.	1.5	18
20	Nanocrystalline diamond piezoresistive sensor. Vacuum, 2009, 84, 53-56.	3.5	18
21	Optical study of defects in nanoâ€diamond films grown in linear antenna microwave plasma CVD from H₂/CH₄/CO₂ gas mixture. Physica Status Solidi (B): Basic Research, 2012, 249, 2635-2639.	1.5	18
22	Role of polymers in CVD growth of nanocrystalline diamond films on foreign substrates. Physica Status Solidi (B): Basic Research, 2009, 246, 2654-2657.	1.5	17
23	Simplified procedure for patterned growth of nanocrystalline diamond micro-structures. Thin Solid Films, 2009, 518, 343-347.	1.8	17
24	Diamond-coated ATR prism for infrared absorption spectroscopy of surface-modified diamond nanoparticles. Applied Surface Science, 2013, 270, 411-417.	6.1	17
25	Great Variety of Man-Made Porous Diamond Structures: Pulsed Microwave Cold Plasma System with a Linear Antenna Arrangement. ACS Omega, 2019, 4, 8441-8450.	3.5	17
26	Directly Grown Nanocrystalline Diamond Field-Effect Transistor Microstructures. Sensor Letters, 2010, 8, 482-487.	0.4	17
27	Perspectives of linear antenna microwave system for growth of various carbon nano-forms and its plasma study. Physica Status Solidi (B): Basic Research, 2013, 250, 2723-2726.	1.5	16
28	Selective area deposition of diamond films on AlGaN/GaN heterostructures. Physica Status Solidi (B): Basic Research, 2014, 251, 2574-2580.	1.5	15
29	Enhanced photoluminescence extraction efficiency from a diamond photonic crystal via leaky modes. New Journal of Physics, 2011, 13, 063005.	2.9	14
30	Investigation of residual stress in structured diamond films grown on silicon. Thin Solid Films, 2015, 589, 857-863.	1.8	14
31	Fabrication of nanoâ€structured diamond films for SAOSâ€2 cell cultivation. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2033-2037.	1.8	13
32	Grazing angle reflectance spectroscopy of organic monolayers on nanocrystalline diamond films. Diamond and Related Materials, 2011, 20, 882-885.	3.9	13
33	Coating Ti6Al4V implants with nanocrystalline diamond functionalized with BMP-7 promotes extracellular matrix mineralization in vitro and faster osseointegration in vivo. Scientific Reports, 2022, 12, 5264.	3.3	13
34	Deposition of nanocrystalline diamond films on temperature sensitive substrates for infrared reflectance spectroscopy. Physica Status Solidi (B): Basic Research, 2011, 248, 2736-2739.	1.5	12
35	Influence of surface wave plasma deposition conditions on diamond growth regime. Surface and Coatings Technology, 2015, 271, 74-79.	4.8	12
36	Nanostructuring of diamond films using self-assembled nanoparticles. Open Physics, 2009, 7, .	1.7	11

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37	Direct growth of sub-micron diamond structures. Vacuum, 2012, 86, 693-695.	3.5	11
38	Nanostructured Diamond Layers Enhance the Infrared Spectroscopy of Biomolecules. Langmuir, 2014, 30, 2054-2060.	3.5	11
39	Structural and electrical characterization of diamond films deposited in nitrogen/oxygen containing gas mixture by linear antenna microwave CVD process. Applied Surface Science, 2014, 312, 226-230.	6.1	11
40	Tailoring morphologies of diamond thin films for neural stem cells culturing. Physica Status Solidi (B): Basic Research, 2013, 250, 2717-2722.	1.5	9
41	Diamond growth on copper rods from polymer composite nanofibres. Applied Surface Science, 2014, 312, 220-225.	6.1	9
42	Study on electronic properties of diamond/SiNx-coated AlGaN/GaN high electron mobility transistors operating up to 500â€Â°C. Diamond and Related Materials, 2018, 89, 266-272.	3.9	9
43	The optical absorption of metal nanoparticles deposited on ZnO films. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1722-1725.	1.8	8
44	Optically transparent diamondâ€“PDMS microfluidic system for electronic monitoring of cells. Physica Status Solidi (B): Basic Research, 2014, 251, 2593-2598.	1.5	7
45	Diamond-coated three-dimensional GaN micromembranes: Effect of nucleation and deposition techniques. Physica Status Solidi (B): Basic Research, 2015, 252, 2585-2590.	1.5	7
46	Stability of AlGaN/GaN heterostructures after hydrogen plasma treatment. Applied Surface Science, 2017, 395, 92-97.	6.1	7
47	Diamond nucleation and seeding techniques for tissue regeneration. , 2013, , 206-255.		6
48	Gamma radiation effects on hydrogen-terminated nanocrystalline diamond bio-transistors. Diamond and Related Materials, 2016, 63, 186-191.	3.9	5
49	Effect of a diamond layer on the active electrode on the ozone generation of the dielectric barrier discharge in air. Journal Physics D: Applied Physics, 2020, 53, 275203.	2.8	5
50	3D printing materials for generators of active particles based on electrical discharges. Plasma Processes and Polymers, 2020, 17, 1900150.	3.0	4
51	Technological Aspects in Fabrication of Micro- and Nano-Sized Carbon Based Features: Nanorods, Periodical Arrays and Self-Standing Membranes. Journal of Electrical Engineering, 2015, 66, 282-286.	0.7	3
52	Fabrication of diamond-coated germanium ATR prisms for IR-spectroscopy. Vibrational Spectroscopy, 2016, 84, 67-73.	2.2	3
53	Ir/Al multilayer Gates for High Temperature Operated AlGaN/GaN HEMTs. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700691.	1.8	3
54	Growth of carbon allotropes and plasma characterization in linear antenna microwave plasma CVD system. Japanese Journal of Applied Physics, 2014, 53, 05FP04.	1.5	2

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55	Design and characterization of NCD piezoresistive strain sensor. , 2009, , .		1
56	Strain induced response of AlGaN/GaN high electron mobility transistor located on cantilever and membrane. , 2016, , .		1
57	HYDRATION OF PLASMA-TREATED ALUMOSILICATE BINDERS. Acta Polytechnica, 2014, 54, 348-351.	0.6	0
58	Electrical characterization of diamond films deposited in nitrogen and oxygen containing gas mixture. , 2014, , .		0
59	Schottky contact metallization stability on AlGaN/GaN heterostructure during the diamond deposition process. , 2016, , .		0
60	Black Titanium Dioxide in Situ Generated on Femtosecond Laser Induced Periodic Surface Structures. , 2018, , .		0
61	Influence of SiON interlayer on the diamond/GaN heterostructures studied by Raman and SIMS measurements. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 273, 115434.	3.5	0
62	GROWTH AND PROPERTIES OF DIAMOND FILMS PREPARED ON 4-INCH SUBSTRATES BY CAVITY PLASMA SYSTEMs. , 2020, , .		0
63	Optimization of diamond growth on structured, soft and brittle substrates. , 2020, , .		0