Alexander Kromka

List of Publications by Year
in descending order

292 papers	5,703 citations	126907 33 h-index	133252 59 g-index
294 all docs	294 docs citations	294 times ranked	5430 citing authors

#	Article	IF	Citations
1	Protein-modified nanocrystalline diamond thin films for biosensor applications. Nature Materials, 2004, 3, 736-742.	27.5	495
2	C sp2/sp3 hybridisations in carbon nanomaterials â€" XPS and (X)AES study. Applied Surface Science, 2018, 452, 223-231.	6.1	316
3	Diamond/carbon nanotube composites: Raman, FTIR and XPS spectroscopic studies. Carbon, 2017, 111, 54-61.	10.3	247
4	Size and Purity Control of HPHT Nanodiamonds down to 1 nm. Journal of Physical Chemistry C, 2015, 119, 27708-27720.	3.1	144
5	Optical properties of nanocrystalline diamond thin films. Applied Physics Letters, 2006, 88, 101908.	3.3	95
6	Linear antenna microwave plasma CVD deposition of diamond films over large areas. Vacuum, 2012, 86, 776-779.	3.5	89
7	Improved adhesion and growth of human osteoblast-like MG 63 cells on biomaterials modified with carbon nanoparticles. Diamond and Related Materials, 2007, 16, 2133-2140.	3.9	87
8	Nanoscale topography of nanocrystalline diamonds promotes differentiation of osteoblasts. Acta Biomaterialia, 2009, 5, 3076-3085.	8.3	85
9	Formation of Continuous Nanocrystalline Diamond Layers on Glass and Silicon at Low Temperatures. Chemical Vapor Deposition, 2008, 14, 181-186.	1.3	77
10	Micro-Pattern Guided Adhesion of Osteoblasts on Diamond Surfaces. Sensors, 2009, 9, 3549-3562.	3.8	72
11	Enhanced Growth and Osteogenic Differentiation of Human Osteoblast-Like Cells on Boron-Doped Nanocrystalline Diamond Thin Films. PLoS ONE, 2011, 6, e20943.	2.5	70
12	Nanodiamond as Promising Material for Bone Tissue Engineering. Journal of Nanoscience and Nanotechnology, 2009, 9, 3524-3534.	0.9	69
13	High-yield fabrication and properties of 1.4â€‰nm nanodiamonds with narrow size distribution. Scientific Reports, 2016, 6, 38419.	3.3	63
14	The effect of SWCNT and nano-diamond films on human osteoblast cells. Physica Status Solidi (B): Basic Research, 2007, 244, 4356-4359.	1.5	57
15	Thiol-yne Reaction on Boron-Doped Diamond Electrodes: Application for the Electrochemical Detection of DNAâ€"DNA Hybridization Events. Analytical Chemistry, 2012, 84, 194-200.	6.5	55
16	Ultrathin Nanocrystalline Diamond Films with Silicon Vacancy Color Centers via Seeding by 2 nm Detonation Nanodiamonds. ACS Applied Materials & Interfaces, 2017, 9, 38842-38853.	8.0	52
17	Investigation of nanocrystalline diamond films grown on silicon and glass at substrate temperature below 400ÂÂ°C. Diamond and Related Materials, 2007, 16, 744-747.	3.9	51
18	Immobilization of horseradish peroxidase via an amino silane on oxidized ultrananocrystalline diamond. Diamond and Related Materials, 2007, 16, 138-143.	3.9	50

#	ARTICLE	IF	CITATIONS
19	Nanofibrous poly(lactide-co-glycolide) membranes loaded with diamond nanoparticles as promising substrates for bone tissue engineering. International Journal of Nanomedicine, 2012, 7, 1931.	6.7	50
20	Nanomolar Hydrogen Peroxide Detection Using Horseradish Peroxidase Covalently Linked to Undoped Nanocrystalline Diamond Surfaces. Langmuir, 2012, 28, 587-592.	3.5	48
21	Bone and vascular endothelial cells in cultures on nanocrystalline diamond films. Diamond and Related Materials, 2008, 17, 1405-1409.	3.9	47
22	Growth of nanocrystalline diamond films deposited by microwave plasma CVD system at low substrate temperatures. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3011-3015.	1.8	45
23	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
24	Sensitivity of bacteria to diamond nanoparticles of various size differs in gram-positive and gram-negative cells. FEMS Microbiology Letters, 2014, 351, 179-186.	1.8	44
25	Early stage of diamond growth at low temperature. Diamond and Related Materials, 2008, 17, 1252-1255.	3.9	41
26	Nanoparticles Assume Electrical Potential According to Substrate, Size, and Surface Termination. Langmuir, 2013, 29, 1634-1641.	3.5	41
27	Osteogenic cell differentiation on H-terminated and O-terminated nanocrystalline diamond films. International Journal of Nanomedicine, 2015, 10, 869.	6.7	41
28	Development of Composite Poly(Lactide-<I>co</I>-Glycolide)-Nanodiamond Scaffolds for Bone Cell Growth. Journal of Nanoscience and Nanotechnology, 2015, 15, 1060-1069.	0.9	38
29	Covalent Diamondâ€"Graphite Bonding: Mechanism of Catalytic Transformation. ACS Nano, 2019, 13, 4621-4630.	14.6	38
30	Effects of protein inter-layers on cellâ€"diamond FET characteristics. Biosensors and Bioelectronics, 2010, 26, 1307-1312.	10.1	37
31	Adhesion of osteoblasts on chemically patterned nanocrystalline diamonds. Physica Status Solidi (B): Basic Research, 2008, 245, 2124-2127.	1.5	36
32	Selective detection of phosgene by nanocrystalline diamond layer. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2070-2073.	1.8	36
33	Polylactide nanofibers with hydroxyapatite as growth substrates for osteoblast-like cells. Journal of Biomedical Materials Research - Part A, 2014, 102, 3918-3930.	4.0	36
34	Bone cells in cultures on nanocarbon-based materials for potential bone tissue engineering: A review. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2688-2702.	1.8	36
35	Antibacterial behavior of diamond nanoparticles against <i>Escherichia coli</i>. Physica Status Solidi (B): Basic Research, 2012, 249, 2581-2584.	1.5	35
36	Inhibition of E. coli Growth by Nanodiamond and Graphene Oxide Enhanced by Luria-Bertani Medium. Nanomaterials, 2018, 8, 140.	4.1	35

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37	Identification of carbon phases and analysis of diamond/substrate interfaces by Raman spectroscopy. Carbon, 2005, 43, 425-429.	10.3	34
38	Adsorption of fetal bovine serum on H/O-terminated diamond studied by atomic force microscopy. Diamond and Related Materials, 2009, 18, 918-922.	3.9	34
39	Diamond film coated on WC/Co tools by double bias-assisted hot filament CVD. Current Applied Physics, 2002, 2, 201-204.	2.4	33
40	Spectroscopic studies of nanocrystalline diamond materials. Diamond and Related Materials, 2007, 16, 1463-1470.	3.9	32
41	Photovoltage effects in polypyrroleâ€“diamond nanosystem. Diamond and Related Materials, 2009, 18, 249-252.	3.9	32
42	Polydopamine-modified nanocrystalline diamond thin films as a platform for bio-sensing applications. Thin Solid Films, 2013, 543, 180-186.	1.8	32
43	Chemical modifications and stability of diamond nanoparticles resolved by infrared spectroscopy and Kelvin force microscopy. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	31
44	Effect of Nanodiamond Particles on Properties of Epoxy Composites. Advanced Composites Letters, 2008, 17, 096369350801700.	1.3	30
45	Gas sensing properties of nanocrystalline diamond films. Diamond and Related Materials, 2010, 19, 196-200.	3.9	30
46	Longâ€term adsorption of fetal bovine serum on H/Oâ€terminated diamond studied <i>in situ</i> by atomic force microscopy. Physica Status Solidi (B): Basic Research, 2009, 246, 2832-2835.	1.5	29
47	Detecting sp2 phase on diamond surfaces by atomic force microscopy phase imaging and its effects on surface conductivity. Diamond and Related Materials, 2009, 18, 722-725.	3.9	27
48	Nanocarbon Allotropes-Graphene and Nanocrystalline Diamond-Promote Cell Proliferation. Small, 2016, 12, 2499-2509.	10.0	27
49	Gas-sensing behaviour of ZnO/diamond nanostructures. Beilstein Journal of Nanotechnology, 2018, 9, 22-29.	2.8	27
50	Voltammetric characterization of boron-doped diamond electrodes for electroanalytical applications. Journal of Electroanalytical Chemistry, 2020, 862, 114020.	3.8	27
51	Molecular markers of adhesion, maturation and immune activation of human osteoblast-like MG 63 cells on nanocrystalline diamond films. Diamond and Related Materials, 2009, 18, 258-263.	3.9	26
52	Effective Extraction of Photoluminescence from a Diamond Layer with a Photonic Crystal. ACS Nano, 2011, 5, 346-350.	14.6	26
53	Comparative study on dry etching of polycrystalline diamond thin films. Vacuum, 2012, 86, 799-802.	3.5	26
54	Diamond Seeding and Growth of Hierarchically Structured Films for Tissue Engineering. Advanced Engineering Materials, 2009, 11, B71.	3.5	25

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55	Semiconducting to metallic-like boron doping of nanocrystalline diamond films and its effect on osteoblastic cells. Diamond and Related Materials, 2010, 19, 190-195.	3.9	25
56	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
57	Size Effects on Surface Chemistry and Raman Spectra of Sub-5 nm Oxidized High-Pressure High-Temperature and Detonation Nanodiamonds. Journal of Physical Chemistry C, 2021, 125, 5647-5669.	3.1	25
58	Investigation of diamond growth at high pressure by microwave plasma chemical vapor deposition. Diamond and Related Materials, 2004, 13, 604-609.	3.9	24
59	Seeding of polymer substrates for nanocrystalline diamond film growth. Diamond and Related Materials, 2009, 18, 734-739.	3.9	24
60	Synthesis, structure, and opto-electronic properties of organic-based nanoscale heterojunctions. Nanoscale Research Letters, 2011, 6, 238.	5.7	24
61	Transport properties of hydrogen-terminated nanocrystalline diamond films. Diamond and Related Materials, 2012, 24, 63-68.	3.9	24
62	Electron Spectra Line Shape Analysis of Highly Oriented Pyrolytic Graphite and Nanocrystalline Diamond. Analytical Sciences, 2010, 26, 217-222.	1.6	23
63	H-terminated diamond as optically transparent impedance sensor for real-time monitoring of cell growth. Physica Status Solidi (B): Basic Research, 2013, 250, 2741-2746.	1.5	23
64	Preparation and optical properties of nanocrystalline diamond coatings for infrared planar waveguides. Thin Solid Films, 2016, 618, 130-133.	1.8	23
65	Design and fabrication of piezoresistive strain gauges based on nanocrystalline diamond layers. Vacuum, 2012, 86, 689-692.	3.5	22
66	Design and investigation of properties of nanocrystalline diamond optical planar waveguides. Optics Express, 2013, 21, 8417.	3.4	22
67	Study of Ni-Catalyzed Graphitization Process of Diamond by <i>in Situ</i> X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 6629-6636.	3.1	22
68	Diamond-like carbon thin films for high-temperature applications prepared by filtered pulsed laser deposition. Vacuum, 2005, 80, 163-167.	3.5	21
69	The RF plasma surface chemical modification of nanodiamond films grown on glass and silicon at low temperature. Diamond and Related Materials, 2007, 16, 671-674.	3.9	21
70	Fabrication of diamond nanorods for gas sensing applications. Applied Surface Science, 2010, 256, 5602-5605.	6.1	21
71	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
72	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

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73	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
74	Function of thin film nanocrystalline diamondâ€“protein SGFET independent of grain size. Sensors and Actuators B: Chemical, 2012, 166-167, 239-245.	7.8	20
75	Gas sensing properties of nanocrystalline diamond at room temperature. Beilstein Journal of Nanotechnology, 2014, 5, 2339-2345.	2.8	20
76	Amination of NCD Films for Possible Application in Biosensing. Plasma Processes and Polymers, 2015, 12, 336-346.	3.0	20
77	Determination of tumour biomarkers homovanillic and vanillylmandelic acid using flow injection analysis with amperometric detection at a boron doped diamond electrode. Analytica Chimica Acta, 2019, 1087, 44-50.	5.4	20
78	Cyclic Changes in the Amide Bands Within <i>Escherichia coli</i> Biofilms Monitored Using Real-Time Infrared Attenuated Total Reflection Spectroscopy (IR-ATR). Applied Spectroscopy, 2019, 73, 424-432.	2.2	20
79	Strong influence of hierarchically structured diamond nanotopography on adhesion of human osteoblasts and mesenchymal cells. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2038-2041.	1.8	19
80	Electrochemical synthesis and electronic properties of polypyrrole on intrinsic diamond. Diamond and Related Materials, 2009, 18, 1098-1101.	3.9	19
81	Diamond photonic crystal slab: Leaky modes and modified photoluminescence emission of surface-deposited quantum dots. Scientific Reports, 2012, 2, 914.	3.3	19
82	Influence of non-diamond carbon phase on recombination mechanisms of photoexcited charge carriers in microcrystalline and nanocrystalline diamond studied by time resolved photoluminescence spectroscopy. Optical Materials Express, 2014, 4, 624.	3.0	19
83	Bacterial response to nanodiamonds and graphene oxide sheets. Physica Status Solidi (B): Basic Research, 2016, 253, 2481-2485.	1.5	19
84	Carbide-free one-zone sulfurization method grows thin MoS2 layers on polycrystalline CVD diamond. Scientific Reports, 2019, 9, 2001.	3.3	19
85	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
86	Nanocrystalline diamond piezoresistive sensor. Vacuum, 2009, 84, 53-56.	3.5	18
87	Assembly of osteoblastic cell micro-arrays on diamond guided by protein pre-adsorption. Diamond and Related Materials, 2010, 19, 153-157.	3.9	18
88	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
89	Sensing of phosgene by a porous-like nanocrystalline diamond layer with buried metallic electrodes. Sensors and Actuators B: Chemical, 2013, 188, 675-680.	7.8	18
90	Low-Temperature hydrogenation of diamond nanoparticles using diffuse coplanar surface barrier discharge at atmospheric pressure. Physica Status Solidi (B): Basic Research, 2015, 252, 2602-2607.	1.5	18

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91	Erbium ion implantation into diamond â€“ measurement and modelling of the crystal structure. Physical Chemistry Chemical Physics, 2017, 19, 6233-6245.	2.8	18
92	Nanosphere Lithography for Structuring Polycrystalline Diamond Films. Crystals, 2020, 10, 118.	2.2	18
93	Enhancing nanocrystalline diamond surface conductivity by deposition temperature and chemical postâ€processing. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 276-280.	1.8	17
94	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
95	Simplified procedure for patterned growth of nanocrystalline diamond micro-structures. Thin Solid Films, 2009, 518, 343-347.	1.8	17
96	High optical quality nanocrystalline diamond with reduced non-diamond contamination. Diamond and Related Materials, 2010, 19, 453-456.	3.9	17
97	ZnO hedgehog-like structures for control cell cultivation. Applied Surface Science, 2012, 258, 3485-3489.	6.1	17
98	Diamond-coated ATR prism for infrared absorption spectroscopy of surface-modified diamond nanoparticles. Applied Surface Science, 2013, 270, 411-417.	6.1	17
99	Coherent phonon dynamics in micro- and nanocrystalline diamond. Optics Express, 2013, 21, 31521.	3.4	17
100	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
101	Size and nitrogen inhomogeneity in detonation and laser synthesized primary nanodiamond particles revealed via salt-assisted deaggregation. Carbon, 2021, 171, 230-239.	10.3	17
102	Directly Grown Nanocrystalline Diamond Field-Effect Transistor Microstructures. Sensor Letters, 2010, 8, 482-487.	0.4	17
103	Structural, optical, and electronic properties of nanocrystalline and ultrananocrystalline diamond thin films. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2874-2880.	1.8	16
104	Novel plasma treatment in linear antenna microwave PECVD system. Vacuum, 2012, 86, 603-607.	3.5	16
105	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
106	Expanding the Scope of Diamond Surface Chemistry: Stille and Sonogashira Cross-Coupling Reactions. Journal of Physical Chemistry C, 2017, 121, 23446-23454.	3.1	16
107	Anti-adhesive properties of nanocrystalline diamond films against Escherichia coli bacterium: Influence of surface termination and cultivation medium. Diamond and Related Materials, 2018, 83, 87-93.	3.9	16
108	Silicon nanocrystals and nanodiamonds in live cells: photoluminescence characteristics, cytotoxicity and interaction with cell cytoskeleton. RSC Advances, 2014, 4, 10334-10342.	3.6	15

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109	Selective area deposition of diamond films on AlGaN/GaN heterostructures. Physica Status Solidi (B): Basic Research, 2014, 251, 2574-2580.	1.5	15
110	Templated diamond growth on porous carbon foam decorated with polyvinyl alcohol-nanodiamond composite. Carbon, 2017, 119, 124-132.	10.3	15
111	Structured and graphitized boron doped diamond electrodes: Impact on electrochemical detection of Cd2+ and Pb2+ ions. Vacuum, 2019, 170, 108953.	3.5	15
112	Electrical characterization of locally charged oxidized nanocrystalline diamond films by Kelvin force microscopy. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2136-2140.	1.8	14
113	The infrared optical absorption spectra of the functionalized nanocrystalline diamond surface. Diamond and Related Materials, 2009, 18, 772-775.	3.9	14
114	Enhanced photoluminescence extraction efficiency from a diamond photonic crystal via leaky modes. New Journal of Physics, 2011, 13, 063005.	2.9	14
115	Investigation of residual stress in structured diamond films grown on silicon. Thin Solid Films, 2015, 589, 857-863.	1.8	14
116	Catalyst-free site-specific surface modifications of nanocrystalline diamond films via microchannel cantilever spotting. RSC Advances, 2016, 6, 57820-57827.	3.6	14
117	Occurrence of pharmaceuticals, illicit drugs, and resistant types of bacteria in hospital effluent and their effective degradation by boron-doped diamond electrodes. Monatshefte FÃ¼r Chemie, 2016, 147, 97-103.	1.8	14
118	Silicon nanocrystal-based photonic crystal slabs with broadband and efficient directional light emission. Scientific Reports, 2017, 7, 5763.	3.3	14
119	Diamond nucleation and growth on horizontally and vertically aligned Si substrates at low pressure in a linear antenna microwave plasma system. Diamond and Related Materials, 2018, 82, 41-49.	3.9	14
120	Microsphere lithography for scalable polycrystalline diamond-based near-infrared photonic crystals fabrication. Materials and Design, 2018, 139, 363-371.	7.0	14
121	Electron affinity of undoped and boron-doped polycrystalline diamond films. Diamond and Related Materials, 2018, 87, 208-214.	3.9	14
122	Boron doped diamond electrode â€“ The elimination of psychoactive drugs and resistant bacteria from wastewater. Vacuum, 2020, 171, 108957.	3.5	14
123	Flexoelectricity in polycrystalline TiO2 thin films. Acta Materialia, 2020, 190, 124-129.	7.9	14
124	New chemical pathway for large-area deposition of doped diamond films by linear antenna microwave plasma chemical vapor deposition. Diamond and Related Materials, 2022, 126, 109111.	3.9	14
125	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
126	Grazing angle reflectance spectroscopy of organic monolayers on nanocrystalline diamond films. Diamond and Related Materials, 2011, 20, 882-885.	3.9	13

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127	Guided assembly of nanoparticles on electrostatically charged nanocrystalline diamond thin films. Nanoscale Research Letters, 2011, 6, 144.	5.7	13
128	Temperature enhanced gas sensing properties of diamond films. Vacuum, 2012, 86, 599-602.	3.5	13
129	Influence of gas chemistry on Si-V color centers in diamond films. Physica Status Solidi (B): Basic Research, 2015, 252, 2580-2584.	1.5	13
130	Plasma treatment of detonation and HPHT nanodiamonds in diffuse coplanar surface barrier discharge in H₂/N₂ flow. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2680-2686.	1.8	13
131	Osteoblast adhesion, migration, and proliferation variations on chemically patterned nanocrystalline diamond films evaluated by liveâ€cell imaging. Journal of Biomedical Materials Research - Part A, 2017, 105, 1469-1478.	4.0	13
132	Functionalization of boron-doped diamond with a pushâ€“pull chromophore <i>via</i> Sonogashira and CuAAC chemistry. RSC Advances, 2018, 8, 33276-33290.	3.6	13
133	Preparation and characterization of alumina submicron fibers by plasma assisted calcination. Ceramics International, 2020, 46, 22774-22780.	4.8	13
134	Photonic crystal cavity-enhanced emission from silicon vacancy centers in polycrystalline diamond achieved without postfabrication fine-tuning. Nanoscale, 2020, 12, 13055-13063.	5.6	13
135	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
136	Ultrafast photoluminescence of nanocrystalline diamond films. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2154-2157.	1.8	12
137	Laser-induced refractive index changes in nanocrystalline diamond membranes. Optics Letters, 2010, 35, 577.	3.3	12
138	bOptimizing atomic force microscopy for characterization of diamond-protein interfaces. Nanoscale Research Letters, 2011, 6, 337.	5.7	12
139	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
140	HFCVD growth of various carbon nanostructures on SWCNT paper controlled by surface treatment. Physica Status Solidi (B): Basic Research, 2012, 249, 2399-2403.	1.5	12
141	Influence of surface wave plasma deposition conditions on diamond growth regime. Surface and Coatings Technology, 2015, 271, 74-79.	4.8	12
142	Osteoblastic cells trigger gate currents on nanocrystalline diamond transistor. Colloids and Surfaces B: Biointerfaces, 2015, 129, 95-99.	5.0	12
143	Oxidation and reduction of nanodiamond particles in colloidal solutions by laser irradiation or radio-frequency plasma treatment. Vibrational Spectroscopy, 2016, 83, 108-114.	2.2	12
144	Ultrafast dynamics of photoexcited charge carriers in nanocrystalline diamond. Applied Physics Letters, 2008, 93, 083102.	3.3	11

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145	Nanostructuring of diamond films using self-assembled nanoparticles. Open Physics, 2009, 7, .	1.7	11
146	Study of diamond film nucleation by ultrasonic seeding in different solutions. Open Physics, 2012, 10, .	1.7	11
147	Direct growth of sub-micron diamond structures. Vacuum, 2012, 86, 693-695.	3.5	11
148	Nanostructured Diamond Layers Enhance the Infrared Spectroscopy of Biomolecules. Langmuir, 2014, 30, 2054-2060.	3.5	11
149	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
150	Ferromagnetism appears in nitrogen implanted nanocrystalline diamond films. Journal of Magnetism and Magnetic Materials, 2015, 394, 477-480.	2.3	11
151	Polymerâ€based nucleation for chemical vapour deposition of diamond. Journal of Applied Polymer Science, 2016, 133, .	2.6	11
152	Hydroxylation and self-assembly of colloidal hydrogenated nanodiamonds by aqueous oxygen radicals from atmospheric pressure plasma jet. RSC Advances, 2018, 8, 37681-37692.	3.6	11
153	Silicon-Vacancy Centers in Ultra-Thin Nanocrystalline Diamond Films. Micromachines, 2018, 9, 281.	2.9	11
154	Comparison of diamond nucleation in DC and AC substrate bias mode. Thin Solid Films, 2003, 433, 73-77.	1.8	10
155	Sensitivity of Diamond-Capped Impedance Transducer to TrÃ¶gerâ€™s Base Derivative. ACS Applied Materials & Interfaces, 2012, 4, 3860-3865.	8.0	10
156	Two-dimensional photonic crystal slab with embedded silicon nanocrystals: Efficient photoluminescence extraction. Applied Physics Letters, 2013, 102, .	3.3	10
157	Enhanced spontaneous nucleation of diamond nuclei in hot and cold microwave plasma systems. Physica Status Solidi (B): Basic Research, 2013, 250, 2753-2758.	1.5	10
158	Fabrication of periodically ordered diamond nanostructures by microsphere lithography. Physica Status Solidi (B): Basic Research, 2014, 251, 2587-2592.	1.5	10
159	Electrochemically grafted polypyrrole changes photoluminescence of electronic states inside nanocrystalline diamond. Journal of Applied Physics, 2014, 116, 223103.	2.5	10
160	Surface potential of diamond and gold nanoparticles can be locally switched by surrounding materials or applied voltage. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	10
161	Quartz crystal microbalance gas sensor with nanocrystalline diamond sensitive layer. Physica Status Solidi (B): Basic Research, 2015, 252, 2591-2597.	1.5	10
162	The influence of selected nanomaterials on microorganisms. Monatshefte FÃ¼r Chemie, 2017, 148, 525-530.	1.8	10

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163	Atomic force microscopy investigations of rapid thermal carbonized silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 47, 274-278.	3.5	9
164	Detection of residual molybdenum impurity in CVD diamond. Physica Status Solidi A, 2003, 199, 108-112.	1.7	9
165	CVD diamond films with hydrophilic micro-patterns for self-organisation of human osteoblasts. Vacuum, 2009, 84, 61-64.	3.5	9
166	Subgap photoluminescence spectroscopy of nanocrystalline diamond films. Diamond and Related Materials, 2009, 18, 776-778.	3.9	9
167	On the reduction of the non-diamond phase in nanocrystalline CVD diamond films. Diamond and Related Materials, 2009, 18, 726-729.	3.9	9
168	Photo-conductivity and Hall mobility of holes at polypyrroleâ€“diamond interface. Diamond and Related Materials, 2010, 19, 174-177.	3.9	9
169	Optical characterisation of organosilane-modified nanocrystalline diamond films. Chemical Papers, 2011, 65, .	2.2	9
170	Tailoring morphologies of diamond thin films for neural stem cells culturing. Physica Status Solidi (B): Basic Research, 2013, 250, 2717-2722.	1.5	9
171	Diamond growth on copper rods from polymer composite nanofibres. Applied Surface Science, 2014, 312, 220-225.	6.1	9
172	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
173	Stability of the surface termination of nanocrystalline diamond and diamond-like carbon films exposed to open air conditions. Diamond and Related Materials, 2019, 100, 107562.	3.9	9
174	Infrared Absorption Spectroscopy of Albumin Binding with Amine-Containing Plasma Polymer Coatings on Nanoporous Diamond Surfaces. Langmuir, 2019, 35, 13844-13852.	3.5	9
175	Alterations to the adhesion, growth and osteogenic differentiation of human osteoblast-like cells on nanofibrous polylactide scaffolds with diamond nanoparticles. Diamond and Related Materials, 2019, 97, 107421.	3.9	9
176	Photocurrent study of electronic defects in nanocrystalline diamond. Diamond and Related Materials, 2008, 17, 1311-1315.	3.9	8
177	Towards opticalâ€quality nanocrystalline diamond with reduced nonâ€diamond content. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2004-2008.	1.8	8
178	Illumination-induced charge transfer in polypyrroleâ€“diamond nanosystem. Diamond and Related Materials, 2009, 18, 800-803.	3.9	8
179	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
180	Local electrostatic charging differences of subâ€100â€‰nm nanocrystalline diamond films. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2040-2044.	1.8	8

#	Article	IF	Citations
181	How nanocrystalline diamond films become charged in nanoscale. Diamond and Related Materials, 2012, 24, 39-43.	3.9	8
182	Optical harmonic generation in nanocrystalline diamond. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 1300-1303.	2.7	8
183	Diamond-coated field-effect sensor for DNA recognition â€" Influence of material and morphology. Diamond and Related Materials, 2015, 60, 87-93.	3.9	8
184	Temperature-dependent stress in diamond-coated AlGaN/GaN heterostructures. Materials and Design, 2016, 106, 305-312.	7.0	8
185	Microscopic Electrical Conductivity of Nanodiamonds after Thermal and Plasma Treatments. MRS Advances, 2016, 1, 1105-1111.	0.9	8
186	Uptake and intracellular accumulation of diamond nanoparticles â€" a metabolic and cytotoxic study. Beilstein Journal of Nanotechnology, 2017, 8, 1649-1657.	2.8	8
187	Diamond nanoparticles suppress lateral growth of bacterial colonies. Colloids and Surfaces B: Biointerfaces, 2018, 170, 544-552.	5.0	8
188	Electron emission from H-terminated diamond enhanced by polypyrrole grafting. Carbon, 2021, 176, 642-649.	10.3	8
189	Adhesion and Growth of Human Osteoblast-Like Cell in Cultures on Nanocomposite Carbon-Based Materials. Nanoscience and Nanotechnology Letters, 2011, 3, 99-109.	0.4	8
190	AFM induced electrostatic charging of nanocrystalline diamond on silicon. Physica Status Solidi (B): Basic Research, 2009, 246, 2798-2801.	1.5	7
191	Hydrogen-Terminated Diamond Sensors for Electrical Monitoring of Cells. Key Engineering Materials, 2014, 605, 577-580.	0.4	7
192	Transformation of polymer composite nanofibers to diamond fibers and films by microwave plasma-enhanced CVD process. Applied Surface Science, 2014, 312, 188-191.	6.1	7
193	Optically transparent diamondâ€"PDMS microfluidic system for electronic monitoring of cells. Physica Status Solidi (B): Basic Research, 2014, 251, 2593-2598.	1.5	7
194	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
195	Influence of Diamond CVD Growth Conditions and Interlayer Material on Diamond/GaN Interface. Materials Science Forum, 2015, 821-823, 982-985.	0.3	7
196	Size decrease of detonation nanodiamonds by air annealing investigated by AFM. MRS Advances, 2016, 1, 1067-1073.	0.9	7
197	Influence of non-adherent yeast cells on electrical characteristics of diamond-based field-effect transistors. Applied Surface Science, 2017, 395, 214-219.	6.1	7
198	Coâ€implantation of Er and Yb ions into singleâ€crystalline and nanoâ€crystalline diamond. Surface and Interface Analysis, 2018, 50, 1218-1223.	1.8	7

#	Article	IF	Citations
199	Influence of the growth temperature on the Si-V photoluminescence in diamond thin films. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	7
200	Photogenerated charge collection on diamond electrodes with covalently linked chromophore monolayers. Electrochimica Acta, 2020, 337, 135762.	5.2	7
201	Influence of nucleation parameters on growth of diamond thin films by hybrid hot filament CVD. Diamond and Related Materials, 2003, 12, 356-360.	3.9	6
202	Nondestructive Dynamic Characterization of Nanocrystalline Diamond Membranes for Flexural Plate Wave Sensors. IEEE Sensors Journal, 2006, 6, 916-923.	4.7	6
203	Comparative study of electrical properties of nano to polycrystalline diamond films. Journal of Physics: Conference Series, 2008, 100, 052097.	0.4	6
204	Light-assisted adsorption processes in nanocrystalline diamond membranes studied by femtosecond laser spectroscopy. Diamond and Related Materials, 2010, 19, 918-922.	3.9	6
205	Controlling Electrostatic Charging of Nanocrystalline Diamond at Nanoscale. Langmuir, 2013, 29, 7111-7117.	3.5	6
206	Diamond nucleation and seeding techniques for tissue regeneration. , 2013, , 206-255.		6
207	Siâ€related color centers in nanocrystalline diamond thin films. Physica Status Solidi (B): Basic Research, 2014, 251, 2603-2606.	1.5	6
208	Carbon nanotubes overgrown and ingrown with nanocrystalline diamond deposited by different CVD plasma systems. Physica Status Solidi (B): Basic Research, 2014, 251, 2413-2419.	1.5	6
209	Filamentation of diamond nanoparticles treated in underwater corona discharge. RSC Advances, 2016, 6, 2352-2360.	3.6	6
210	Determination of temperature dependent parameters of zero-phonon line in photo-luminescence spectrum of silicon-vacancy centre in CVD diamond thin films. Journal of Electrical Engineering, 2017, 68, 74-78.	0.7	6
211	Surface chemistry of water-dispersed detonation nanodiamonds modified by atmospheric DC plasma afterglow. RSC Advances, 2017, 7, 38973-38980.	3.6	6
212	Ni-mediated reactions in nanocrystalline diamond on Si substrates: the role of the oxide barrier. RSC Advances, 2020, 10, 8224-8232.	3.6	6
213	Hydrogen-Terminated Diamond Surface as a Gas Sensor: A Comparative Study of Its Sensitivities. Sensors, 2021, 21, 5390.	3.8	6
214	Modeling of Thermal Stress Induced During the Diamond-Coating of AlGaN/GaN High Electron Mobility Transistors. Advanced Science, Engineering and Medicine, 2013, 5, 522-526.	0.3	6
215	Influence of Substrate Bias Pretreatment on Growth of Diamond Films By HFCVD. Surface Engineering, 2003, 19, 417-420.	2.2	5
216	Stabilizing diamond surface conductivity by phenol-formaldehyde and acrylate resins. Thin Solid Films, 2009, 517, 3738-3741.	1.8	5

#	Article	IF	Citations
217	Ultrafast photoluminescence spectroscopy of H- and O-terminated nanocrystalline diamond films. Diamond and Related Materials, 2011, 20, 1155-1159.	3.9	5
218	Artifacts in Atomic Force Microscopy of Biological Samples. , 2012, , .		5
219	Mechanical Properties of Single and Double-Layered PVA Nanofibers. Key Engineering Materials, 0, 586, 261-264.	0.4	5
220	Fabrication of Diamond Based Quartz Crystal Microbalance Gas Sensor. Key Engineering Materials, 0, 605, 589-592.	0.4	5
221	The Application of Nanodiamond in Biotechnology and Tissue Engineering. , 0, , .		5
222	Gamma radiation effects on hydrogen-terminated nanocrystalline diamond bio-transistors. Diamond and Related Materials, 2016, 63, 186-191.	3.9	5
223	Erbium Luminescence Centres in Single- and Nano-Crystalline Diamondâ€"Effects of Ion Implantation Fluence and Thermal Annealing. Micromachines, 2018, 9, 316.	2.9	5
224	Maximized vertical photoluminescence from optical material with losses employing resonant excitation and extraction of photonic crystal modes. Nanophotonics, 2019, 8, 1041-1050.	6.0	5
225	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
226	Gamma radiation effects on diamond field-effect biosensors with fibroblasts and extracellular matrix. Colloids and Surfaces B: Biointerfaces, 2021, 204, 111689.	5.0	5
227	Growth Rate Enhancement and Morphology Engineering of Diamond Films by Adding CO₂ or N₂ in Hydrogen Rich Gas Chemistry. Advanced Science, Engineering and Medicine, 2014, 6, 749-755.	0.3	5
228	Surface Treatment of Diamond Films Grown on Glass by Different Microwave Plasma Systems. Advanced Science, Engineering and Medicine, 2014, 6, 802-808.	0.3	5
229	The influence of thermal annealing on the electronic defect states in nanocrystalline CVD diamond films. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2158-2162.	1.8	4
230	STRUCTURING OF DIAMOND FILMS USING MICROSPHERE LITHOGRAPHY. Acta Polytechnica, 2014, 54, 320-324.	0.6	4
231	Influence of the selected nanomaterials and micro-pollutants on the environment. Toxicology Letters, 2017, 280, S213.	0.8	4
232	Nucleation of diamond micro-patterns with photoluminescent SiV centers controlled by amorphous silicon thin films. Applied Surface Science, 2019, 480, 1008-1013.	6.1	4
233	Nanocomposite and Nanostructured Carbon-based Films as Growth Substrates for Bone Cells. , 0, , .		4
234	Hydrogen on nanocrystalline diamond film surfaces. Diamond and Related Materials, 2012, 26, 66-70.	3.9	3

#	Article	IF	Citations
235	Fabrication of free-standing pure carbon-based composite material with the combination of sp2â€“sp3 hybridizations. Applied Surface Science, 2014, 308, 211-215.	6.1	3
236	Fabrication and Characterization of N-Type Zinc Oxide/P-Type Boron Doped Diamond Heterojunction. Journal of Electrical Engineering, 2015, 66, 277-281.	0.7	3
237	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
238	Nanofibrous Scaffolds as Promising Cell Carriers for Tissue Engineering. , 0, , .		3
239	Diamond Functional Layers for Cell-based Impedance Spectroscopy. Procedia Engineering, 2016, 168, 614-617.	1.2	3
240	Fabrication of diamond-coated germanium ATR prisms for IR-spectroscopy. Vibrational Spectroscopy, 2016, 84, 67-73.	2.2	3
241	Non-conducting polyaniline nanofibrils and their physico-chemical behavior. Vacuum, 2020, 171, 108955.	3.5	3
242	Optical emission spectroscopy of radio frequency inductively coupled plasma for cold hydrogenation of nanoparticles. IOP Conference Series: Materials Science and Engineering, 2021, 1050, 012012.	0.6	3
243	Laser-Induced Modification of Hydrogenated Detonation Nanodiamonds in Ethanol. Nanomaterials, 2021, 11, 2251.	4.1	3
244	Spectral tuning of diamond photonic crystal slabs by deposition of a thin layer with silicon vacancy centers. Nanophotonics, 2021, 10, 3895-3905.	6.0	3
245	CHAPTER 13. Low Temperature Diamond Growth. RSC Nanoscience and Nanotechnology, 2014, , 290-342.	0.2	3
246	Diamond Films Deposited by Oxygen-Enhanced Linear Plasma Chemistry. Advanced Science, Engineering and Medicine, 2013, 5, 509-514.	0.3	3
247	Temperature and ambient atmosphere dependent electrical characterization of sputtered IrO2/TiO2/IrO2 capacitors. Journal of Applied Physics, 2022, 131, .	2.5	3
248	Micro-Raman study of InGaP composition grown on V-grooved substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 113, 111-116.	3.5	2
249	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
250	Stochastic model explains formation of cell arrays on H/O-diamond patterns. Biointerphases, 2015, 10, 041006.	1.6	2
251	Nanocrystalline diamond films for electronic monitoring of gas and organic molecules. , 2016, , .		2
252	Influence of substrate material on spectral properties and thermal quenching of photoluminescence of silicon vacancy colour centres in diamond thin films. Journal of Electrical Engineering, 2017, 68, 3-9.	0.7	2

#	Article	IF	Citations
253	Nanocrystalline diamond-based impedance sensors for real-time monitoring of adipose tissue-derived stem cells. Colloids and Surfaces B: Biointerfaces, 2019, 177, 130-136.	5.0	2
254	Sub-picosecond electron dynamics in polycrystalline diamond films. Diamond and Related Materials, 2020, 108, 107935.	3.9	2
255	Mask-Free Surface Structuring of Micro- and Nanocrystalline Diamond Films by Reactive Ion Plasma Etching. Advanced Science, Engineering and Medicine, 2014, 6, 780-784.	0.3	2
256	Diamond as functional material for bioelectronics and biotechnology. , 0, , .		2
257	Impact of electrolyte solution on electrochemical oxidation treatment of Escherichia coli K-12 by boron-doped diamond electrodes. Letters in Applied Microbiology, 2022, 74, 924-931.	2.2	2
258	Detection of globular and fibrillar proteins by quartz crystal microbalance sensor coated with a functionalized diamond thin film. Applied Surface Science, 2022, 589, 153017.	6.1	2
259	Rapid investigation of nanocrystalline diamond vibrating membranes with a stroboscopic interferometer. , 0, , .		1
260	Design and characterization of NCD piezoresistive strain sensor. , 2009, , .		1
261	Erratum to â€œStudy of diamond film nucleation by ultrasonic seeding in different solutionsâ€•by MariÃ¡n Varga, Tibor IÅ¾Ã¡k, Alexander Kromka, Marian VeselÃ½, Karel HruÅ¡ka and Miroslav Michalka. Open Physics, 2012, 10, .	1.7	1
262	Real-time Monitoring of Cell Activities by Diamond Solution-gated Field Effect Transistors. Procedia Engineering, 2016, 168, 469-472.	1.2	1
263	Microcrystalline Diamond Membrane for Electronic Monitoring of Cells in Microfluidic Perfusion Systems. Procedia Engineering, 2016, 168, 1442-1445.	1.2	1
264	Real-Time Monitoring of Stem Cells by Diamond-Based Impedance Sensors â€. Proceedings (mdpi), 2017, 1, 515.	0.2	1
265	Two-dimensional photonic crystals increasing vertical light emission from Si nanocrystal-rich thin layers. Beilstein Journal of Nanotechnology, 2018, 9, 2287-2296.	2.8	1
266	Diamond Structures Grown from Polymer Composite Nanofibers. Advanced Science, Engineering and Medicine, 2013, 5, 519-521.	0.3	1
267	Real-Time Monitoring of Stem Cells by Diamond-Based Impedance Sensors. Proceedings (mdpi), 2017, 1, 515.	0.2	1
268	Changes of morphological, optical and electrical properties induced by hydrogen plasma on (0001) ZnO Surface. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100427.	1.8	1
269	<title>Application of lasers in diamond film processing</title>. , 1999, , .		0
270	Optical properties of GaAs based layers characterised by Raman spectroscopy and photoluminescence. , 0, , .		0

#	Article	IF	Citations
271	Study of diamond films prepared by hot filament chemical vapor deposition. , 0, , .		0
272	Growth of polycrystalline diamond-films for low field electron emission. , 0, , .		0
273	Stimulation of diamond growth on optically transparent non-conductive substrates. , 0, , .		0
274	Electron emission from diamond layer on tungsten wire measured in cylindrical electrode configuration. , 0, , .		0
275	Comparison Between Chemical and Plasmatic Treatment of Seeding Layer for Patterned Diamond Growth. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	0
276	Optical Monitoring of Nanocrystalline Diamond with Reduced Non-diamond Contamination. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	0
277	Switching polarity of oxidized detonation diamond nanoparticles on substrates. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2095-2099.	1.8	0
278	DEPOSITION CARBON NANOSTRUCTURES BY SURFATRON GENERATED DISCHARGE. Acta Polytechnica, 2014, 54, 389-393.	0.6	0
279	HYDRATION OF PLASMA-TREATED ALUMOSILICATE BINDERS. Acta Polytechnica, 2014, 54, 348-351.	0.6	0
280	Bone cells in cultures on nanocarbon-based materials for potential bone tissue engineering: A review (Phys. Status Solidi A 12â˘•2014). Physica Status Solidi (A) Applications and Materials Science, 2014, 211, n/a-n/a.	1.8	0
281	Electrical characterization of diamond films deposited in nitrogen and oxygen containing gas mixture. , 2014, , .		0
282	Influence of nanocrystalline diamond on resonant properties of gold plasmonic antennas. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1564-1571.	1.8	0
283	Schottky contact metallization stability on AlGaN/GaN heterostructure during the diamond deposition process. , 2016, , .		0
284	Visible Light Photodiodes and Photovoltages from Detonation Nanodiamonds. MRS Advances, 2016, 1, 971-975.	0.9	0
285	Multimodal Analysis of Diamond Crystals and Layers Using RISE Microscopy. Microscopy and Microanalysis, 2017, 23, 2280-2281.	0.4	0
286	Influence of Buffers and Culture Media on Diamond Solution-Gated Field Effect Transistors Regarding Stability and Memory Effect. Proceedings (mdpi), 2017, 1, .	0.2	0
287	Fabrication of Structured Boron-Doped Diamond Films for Electrochemical Applications. Proceedings (mdpi), 2018, 2, 984.	0.2	0
288	Fabrication of Diamond Membranes by Femtosecond Laser Ablation for MEMS Sensor Applications. Proceedings (mdpi), 2020, 56, .	0.2	0

#	Article	IF	Citations
289	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
290	Direct Deposition of CVD Diamond Layers on Top of GaN Membranes. Proceedings (mdpi), 2020, 56, .	0.2	0
291	Optimization of diamond growth on structured, soft and brittle substrates. , 2020, , .		0
292	Front-side diamond deposition on the GaN membranes. , 2020, , .		0