Mateusz Ficek

List of Publications by Year in descending order

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65	1,067	331670	454955
papers	citations	21 h-index	30 g-index

66	66	66	1000
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Focused ion beam-based microfabrication of boron-doped diamond single-crystal tip cantilevers for electrical and mechanical scanning probe microscopy. Measurement: Journal of the International Measurement Confederation, 2022, 188, 110373.	5.0	4
2	Multi-pathway mechanism of polydopamine film formation at vertically aligned diamondised boron-doped carbon nanowalls. Electrochimica Acta, 2022, 409, 140000.	5.2	8
3	Fluorescence of nanodiamond cocktails: pH-induced effects through interactions with comestible liquids. Food Chemistry, 2022, 381, 132206.	8.2	3
4	Electrochemical Detection of Plant Pathogens Using Boron-Doped Carbon Nanowalls Immunosensor. IEEE Sensors Journal, 2022, 22, 7562-7571.	4.7	0
5	Performance of electrochemical immunoassays for clinical diagnostics of SARS-CoV-2 based on selective nucleocapsid N protein detection: Boron-doped diamond, gold and glassy carbon evaluation. Biosensors and Bioelectronics, 2022, 209, 114222.	10.1	23
6	Influence of B/N co-doping on electrical and photoluminescence properties of CVD grown homoepitaxial diamond films. Nanotechnology, 2022, 33, 125603.	2.6	5
7	Volumetric incorporation of NV diamond emitters in nanostructured F2 glass magneto-optical fiber probes. Carbon, 2022, 196, 10-19.	10.3	11
8	Tuning the Laserâ€Induced Processing of 3D Porous Graphenic Nanostructures by Boronâ€Doped Diamond Particles for Flexible Microsupercapacitors. Advanced Functional Materials, 2022, 32, .	14.9	25
9	Conductive printable electrodes tuned by boron-doped nanodiamond foil additives for nitroexplosive detection. Mikrochimica Acta, 2022, 189, .	5.0	6
10	The effect of boron concentration on the electrical, morphological and optical properties of boron-doped nanocrystalline diamond sheets: Tuning the diamond-on-graphene vertical junction. Diamond and Related Materials, 2022, 128, 109225.	3.9	7
11	Highly selective impedimetric determination of Haemophilus influenzae protein D using maze-like boron-doped carbon nanowall electrodes. Talanta, 2021, 221, 121623.	5.5	15
12	Low-strain sensor based on the flexible boron-doped diamond-polymer structures. Carbon, 2021, 173, 832-841.	10.3	13
13	Self-assembly of vertically orientated graphene nanostructures: Multivariate characterisation by Minkowski functionals and fractal geometry. Acta Materialia, 2021, 214, 116989.	7.9	24
14	Diamond Nanofilm Normalizes Proliferation and Metabolism in Liver Cancer Cells. Nanotechnology, Science and Applications, 2021, Volume 14, 115-137.	4.6	3
15	Stable Field Electron Emission and Plasma Illumination from Boron and Nitrogen Coâ€Doped Edgeâ€Rich Diamondâ€Enhanced Carbon Nanowalls. Advanced Materials Interfaces, 2021, 8, 2100464.	3.7	9
16	Quantitative fluorescent determination of DNA â€“ Ochratoxin a interactions supported by nitrogen-vacancy rich nanodiamonds. Journal of Molecular Liquids, 2021, 342, 117338.	4.9	5
17	Integration of Fluorescent, NV-Rich Nanodiamond Particles with AFM Cantilevers by Focused Ion Beam for Hybrid Optical and Micromechanical Devices. Coatings, 2021, 11, 1332.	2.6	5
18	Nitrogen-Incorporated Boron-Doped Nanocrystalline Diamond Nanowires for Microplasma Illumination. ACS Applied Materials & Interfaces, 2021, 13, 55687-55699.	8.0	9

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19	Implementation of SiN thin film in fiber-optic sensor working in telecommunication range of wavelengths. Scientific Reports, 2021, 11, 22402.	3.3	0
20	Nanocrystalline diamond sheets as protective coatings for fiber-optic measurement head. Carbon, 2020, 156, 104-109.	10.3	9
21	Electrochemical determination of nitroaromatic explosives at boron-doped diamond/graphene nanowall electrodes: 2,4,6-trinitrotoluene and 2,4,6-trinitroanisole in liquid effluents. Journal of Hazardous Materials, 2020, 387, 121672.	12.4	59
22	Electrochemical performance of thin free-standing boron-doped diamond nanosheet electrodes. Journal of Electroanalytical Chemistry, 2020, 862, 114016.	3.8	23
23	Single-step grown boron doped nanocrystalline diamond-carbon nanograss hybrid as an efficient supercapacitor electrode. Nanoscale, 2020, 12, 10117-10126.	5.6	23
24	Enhanced Charge Storage Mechanism and Long-Term Cycling Stability in Diamondized Titania Nanocomposite Supercapacitors Operating in Aqueous Electrolytes. Journal of Physical Chemistry C, 2020, 124, 15698-15712.	3.1	11
25	High-Temperature Oxidation of Heavy Boron-Doped Diamond Electrodes: Microstructural and Electrochemical Performance Modification. Materials, 2020, 13, 964.	2.9	14
26	Electrochemical Detection of 4,4â€™,5,5â€™-Tetranitro-1H,1â€™H-2,2â€™-Biimidazole on Boron-Doped Diamond/Graphene Nanowall Electrodes. IEEE Sensors Journal, 2020, 20, 9637-9643.	4.7	6
27	Physicochemical and Mechanical Performance of Freestanding Boron-Doped Diamond Nanosheets Coated with C:H:N:O Plasma Polymer. Materials, 2020, 13, 1861.	2.9	2
28	Nanodiamond phantoms mimicking human liver: perspective to calibration of T1 relaxation time in magnetic resonance imaging. Scientific Reports, 2020, 10, 6446.	3.3	5
29	Studies of free-standing boron-doped diamond sheets using optical coherence tomography. , 2020, , .		0
30	Doped Nanocrystalline Diamond Films as Reflective Layers for Fiber-Optic Sensors of Refractive Index of Liquids. Materials, 2019, 12, 2124.	2.9	16
31	Optical Magnetometry Based on Nanodiamonds with Nitrogen-Vacancy Color Centers. Materials, 2019, 12, 2951.	2.9	20
32	3D Hierarchical Boron-Doped Diamond-Multilayered Graphene Nanowalls as an Efficient Supercapacitor Electrode. Journal of Physical Chemistry C, 2019, 123, 15458-15466.	3.1	35
33	Enhanced boron doping of thin diamond films grown in deuterium-rich microwave plasma. Diamond and Related Materials, 2019, 96, 198-206.	3.9	5
34	Tailoring Electro/Optical Properties of Transparent Boron-Doped Carbon Nanowalls Grown on Quartz. Materials, 2019, 12, 547.	2.9	15
35	Boron-Doped Nanocrystalline Diamondâ€“Carbon Nanospike Hybrid Electron Emission Source. ACS Applied Materials & Interfaces, 2019, 11, 48612-48623.	8.0	13
36	Heterogeneous oxidation of highly boron-doped diamond electrodes and its influence on the surface distribution of electrochemical activity. Electrochimica Acta, 2019, 297, 1018-1027.	5.2	37

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37	Growth and Isolation of Large Area Boronâ€Doped Nanocrystalline Diamond Sheets: A Route toward Diamondâ€onâ€Graphene Heterojunction. Advanced Functional Materials, 2019, 29, 1805242.	14.9	22
38	Comparison of the paracetamol electrochemical determination using boron-doped diamond electrode and boron-doped carbon nanowalls. Biosensors and Bioelectronics, 2019, 126, 308-314.	10.1	56
39	Triboenvironment Dependent Chemical Modification of Sliding Interfaces in Ultrananocrystalline Diamond Nanowall Film: Correlation with Friction and Wear. Journal of Physical Chemistry C, 2018, 122, 945-956.	3.1	22
40	Influence of the boron doping level on the electrochemical oxidation of raw landfill leachates: Advanced pre-treatment prior to the biological nitrogen removal. Chemical Engineering Journal, 2018, 334, 1074-1084.	12.7	49
41	Self-organized multi-layered grapheneâ€“boron-doped diamond hybrid nanowalls for high-performance electron emission devices. Nanoscale, 2018, 10, 1345-1355.	5.6	57
42	Lowâ€Coherence Interferometer with Nanocrystalline Diamond Films with Potential Application to Measure Small Biological Samples. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800244.	1.8	0
43	Gas Composition Influence on the Properties of Boron-Doped Diamond Films Deposited on the Fused Silica. Materials Science-Poland, 2018, 36, 288-296.	1.0	6
44	Preparation and characterization of TiO2/carbon nanowall composite on a transparent substrate. Photonics Letters of Poland, 2018, 10, 54.	0.4	4
45	Nitrogen-doped diamond thin films: potential application in Fabry-PÃ©rot interferometer. , 2018, , .		0
46	Carbon nanowalls: a new versatile graphene based interface for the laser desorption/ionization-mass spectrometry detection of small compounds in real samples. Nanoscale, 2017, 9, 9701-9715.	5.6	32
47	Boron-Enhanced Growth of Micron-Scale Carbon-Based Nanowalls: A Route toward High Rates of Electrochemical Biosensing. ACS Applied Materials & Interfaces, 2017, 9, 12982-12992.	8.0	75
48	Low-coherence sensors with nanolayers for biomedical sensing. , 2017, , .		0
49	Diamond Phase (sp³-C) Rich Boron-Doped Carbon Nanowalls (sp²-C): Physicochemical and Electrochemical Properties. Journal of Physical Chemistry C, 2017, 121, 20821-20833.	3.1	53
50	Linear antenna microwave chemical vapour deposition of diamond films on long-period fiber gratings for bio-sensing applications. Optical Materials Express, 2017, 7, 3952.	3.0	8
51	Haemocompatibility of Modified Nanodiamonds. Materials, 2017, 10, 352.	2.9	30
52	Computed aided system for separation and classification of the abnormal erythrocytes in human blood. , 2017, , .		3
53	Preparation of fluorescent nanodiamond suspensions using bead-assisted ultrasonic disintegration. , 2017, , .		0
54	Optical and electrical properties of boron doped diamond thin conductive films deposited on fused silica glass substrates. Applied Surface Science, 2016, 387, 846-856.	6.1	43

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55	Ellipsometric investigation of nitrogen doped diamond thin films grown in microwave CH4/H2/N2 plasma enhanced chemical vapor deposition. Applied Physics Letters, 2016, 108, .	3.3	32
56	Fabrication and characterization of boron-doped nanocrystalline diamond-coated MEMS probes. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	18
57	Optoelectronic investigation of nanodiamond interactions with human blood. Proceedings of SPIE, 2016, , .	0.8	0
58	Low temperature growth of diamond films on optical fibers using Linear Antenna CVD system. IOP Conference Series: Materials Science and Engineering, 2016, 104, 012025.	0.6	3
59	Diamond-based protective layer for optical biosensors. , 2016, , .		1
60	Improved surface coverage of an optical fibre with nanocrystalline diamond by the application of dip-coating seeding. Diamond and Related Materials, 2015, 55, 52-63.	3.9	37
61	Nanocrystalline CVD Diamond Coatings on Fused Silica Optical Fibres: Optical Properties Study. Acta Physica Polonica A, 2015, 127, 868-873.	0.5	12
62	Nanocrystalline diamond microelectrode on fused silica optical fibers for electrochemical and optical sensing. Proceedings of SPIE, 2015, , .	0.8	1
63	Optimization of Polycrystalline CVD Diamond Seeding with the Use of sp³/sp²Raman Band Ratio. Acta Physica Polonica A, 2015, 128, 136-140.	0.5	3
64	Opto-Electrochemical Sensing Device Based on Long-Period Grating Coated with Boron-Doped Diamond Thin Film. Journal of the Optical Society of Korea, 2015, 19, 705-710.	0.6	11
65	Nucleation and growth of <scp>CVD</scp> diamond on fused silica optical fibres with titanium dioxide interlayer. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1991-1997.	1.8	21