Robert Bogdanowicz

List of Publications by Year
in descending order

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51 papers	906 citations	516710 16 h-index	501196 28 g-index
51 all docs	51 docs citations	51 times ranked	928 citing authors

#	Article	IF	Citations
1	A rapid-response ultrasensitive biosensor for influenza virus detection using antibody modified boron-doped diamond. Scientific Reports, 2017, 7, 15707.	3.3	107
2	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
3	Study on surface termination of boron-doped diamond electrodes under anodic polarization in H2SO4 by means of dynamic impedance technique. Carbon, 2016, 96, 1093-1105.	10.3	58
4	Self-organized multi-layered grapheneâ€“boron-doped diamond hybrid nanowalls for high-performance electron emission devices. Nanoscale, 2018, 10, 1345-1355.	5.6	57
5	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
6	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
7	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
8	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
9	Dynamic Electrochemical Impedance Spectroscopy (DEIS) as a Tool for Analyzing Surface Oxidation Processes on Boron-Doped Diamond Electrodes. Journal of the Electrochemical Society, 2014, 161, H359-H364.	2.9	31
10	Electrochemical performance of indium-tin-oxide-coated lossy-mode resonance optical fiber sensor. Sensors and Actuators B: Chemical, 2019, 301, 127043.	7.8	25
11	Characterization of Optical and Electrical Properties of Transparent Conductive Boron-Doped Diamond thin Films Grown on Fused Silica. Metrology and Measurement Systems, 2014, 21, 685-698.	1.4	24
12	Electrochemical performance of thin free-standing boron-doped diamond nanosheet electrodes. Journal of Electroanalytical Chemistry, 2020, 862, 114016.	3.8	23
13	Single-step grown boron doped nanocrystalline diamond-carbon nanograss hybrid as an efficient supercapacitor electrode. Nanoscale, 2020, 12, 10117-10126.	5.6	23
14	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
15	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
16	Multisine impedimetric probing of biocatalytic reactions for label-free detection of DEFB1 gene: How to verify that your dog is not human?. Sensors and Actuators B: Chemical, 2020, 323, 128664.	7.8	19
17	Electrochemical oxidation of sulphamerazine at boronâ€doped diamond electrodes: Influence of boron concentration. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2040-2047.	1.8	16
18	Enhanced electrochemical kinetics of highly-oriented (111)-textured boron-doped diamond electrodes induced by deuterium plasma chemistry. Carbon, 2021, 174, 594-604.	10.3	16

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19	Enhancing electrochemical properties of an ITO-coated lossy-mode resonance optical fiber sensor by electrodeposition of PEDOT:PSS. Optical Materials Express, 2019, 9, 3069.	3.0	16
20	Tailoring Electro/Optical Properties of Transparent Boron-Doped Carbon Nanowalls Grown on Quartz. Materials, 2019, 12, 547.	2.9	15
21	Highly selective impedimetric determination of Haemophilus influenzae protein D using maze-like boron-doped carbon nanowall electrodes. Talanta, 2021, 221, 121623.	5.5	15
22	Simultaneous opto-electrochemical monitoring of carbamazepine and its electro-oxidation by-products in wastewater. Journal of Hazardous Materials, 2021, 419, 126509.	12.4	15
23	The electrochemical determination of isatin at nanocrystalline boron-doped diamond electrodes: Stress monitoring of animals. Sensors and Actuators B: Chemical, 2020, 306, 127592.	7.8	14
24	High-Temperature Oxidation of Heavy Boron-Doped Diamond Electrodes: Microstructural and Electrochemical Performance Modification. Materials, 2020, 13, 964.	2.9	14
25	Boron-Doped Nanocrystalline Diamondâ€“Carbon Nanospike Hybrid Electron Emission Source. ACS Applied Materials & Interfaces, 2019, 11, 48612-48623.	8.0	13
26	Chemical-Assisted Mechanical Lapping of Thin Boron-Doped Diamond Films: A Fast Route Toward High Electrochemical Performance for Sensing Devices. Electrochimica Acta, 2017, 242, 268-279.	5.2	12
27	Multifrequency nanoscale impedance microscopy (m-NIM): A novel approach towards detection of selective and subtle modifications on the surface of polycrystalline boron-doped diamond electrodes. Ultramicroscopy, 2019, 199, 34-45.	1.9	12
28	Heterogeneous distribution of surface electrochemical activity in polycrystalline highly boron-doped diamond electrodes under deep anodic polarization. Electrochemistry Communications, 2017, 83, 41-45.	4.7	11
29	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
30	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
31	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
32	Nitrogen-Incorporated Boron-Doped Nanocrystalline Diamond Nanowires for Microplasma Illumination. ACS Applied Materials & Interfaces, 2021, 13, 55687-55699.	8.0	9
33	DFT studies of refractive index of boron-doped diamond. Photonics Letters of Poland, 2018, 10, 39.	0.4	8
34	Multi-pathway mechanism of polydopamine film formation at vertically aligned diamondised boron-doped carbon nanowalls. Electrochimica Acta, 2022, 409, 140000.	5.2	8
35	Charge-based deep level transient spectroscopy of B-doped and undoped polycrystalline diamond films. Journal of Materials Science, 2017, 52, 10119-10126.	3.7	7
36	Enhanced photocatalytic activity of transparent carbon nanowall/TiO2 heterostructures. Materials Letters, 2020, 262, 127155.	2.6	7

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37	Experiments in Benchmarking Relational Database Machines. , 1983, , 106-134.		7
38	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
39	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
40	Influence of B/N co-doping on electrical and photoluminescence properties of CVD grown homoepitaxial diamond films. Nanotechnology, 2022, 33, 125603.	2.6	5
41	Ligand-Modified Boron-Doped Diamond Surface: DFT Insights into the Electronic Properties of Biofunctionalization. Materials, 2019, 12, 2910.	2.9	4
42	In-situ monitoring of electropolymerization processes at boron-doped diamond electrodes by Mach-Zehnder interferometer. Sensors and Actuators B: Chemical, 2020, 304, 127315.	7.8	4
43	Nanolayers in Fiber-Optic Biosensing. , 2018, , 395-426.		3
44	Studies on optical transmittance of boron-doped nanocrystalline diamond films. Photonics Letters of Poland, 2018, 10, 88.	0.4	2
45	Development of novel (BiO)2OHCl/BiOBr enriched with boron doped-carbon nanowalls for photocatalytic cytostatic drug degradation: assessing photocatalytic process utilization in environmental condition. Applied Surface Science, 2022, , 152664.	6.1	2
46	Ab-initio study of electrical and optical properties of allylamine. Photonics Letters of Poland, 2018, 10, 94.	0.4	1
47	pH-Dependency of the Physical Properties of the Nitrogen-Vacancy Centers in Diamonds. , 2020, , .		1
48	Chromatic monitoring technique for thickness measurement of thin transparent films. , 2003, , .		0
49	Smart Engineering of New Materials. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1107-1108.	1.8	0
50	Preparation of fluorescent nanodiamond suspensions using bead-assisted ultrasonic disintegration. , 2017, , .		0
51	Electrochemical Detection of Plant Pathogens Using Boron-Doped Carbon Nanowalls Immunosensor. IEEE Sensors Journal, 2022, 22, 7562-7571.	4.7	0