

# Giuseppe Prestopino

## List of Publications by Year in descending order

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85  
papers

1,549  
citations

304743

22  
h-index

361022

35  
g-index

86  
all docs

86  
docs citations

86  
times ranked

1535  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dosimetric characterization of a synthetic single crystal diamond detector in clinical radiation therapy small photon beams. <i>Medical Physics</i> , 2012, 39, 4493-4501.	3.0	91
2	Chemical vapor deposition diamond based multilayered radiation detector: Physical analysis of detection properties. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	76
3	Overview of the JET results with the ITER-like wall. <i>Nuclear Fusion</i> , 2013, 53, 104002.	3.5	70
4	Thermal and fast neutron detection in chemical vapor deposition single-crystal diamond detectors. <i>Journal of Applied Physics</i> , 2008, 103, 054501.	2.5	63
5	High performance Li <sup>6</sup> F-diamond thermal neutron detectors. <i>Applied Physics Letters</i> , 2006, 89, 143509.	3.3	61
6	Layered Double Hydroxides: A Toolbox for Chemistry and Biology. <i>Crystals</i> , 2019, 9, 361.	2.2	61
7	Characterization of a synthetic single crystal diamond Schottky diode for radiotherapy electron beam dosimetry. <i>Medical Physics</i> , 2013, 40, 021712.	3.0	50
8	Experimental determination of the PTW 60019 microDiamond dosimeter active area and volume. <i>Medical Physics</i> , 2016, 43, 5205-5212.	3.0	49
9	Is the PTW 60019 microDiamond a suitable candidate for small field reference dosimetry?. <i>Physics in Medicine and Biology</i> , 2017, 62, 7036-7055.	3.0	46
10	Extreme UV photodetectors based on CVD single crystal diamond in a p-type/intrinsic/metal configuration. <i>Diamond and Related Materials</i> , 2009, 18, 101-105.	3.9	41
11	Evaluation of the dosimetric properties of a synthetic single crystal diamond detector in high energy clinical proton beams. <i>Medical Physics</i> , 2013, 40, 121702.	3.0	39
12	Radiation tolerance of a high quality synthetic single crystal chemical vapor deposition diamond detector irradiated by 14.8 MeV neutrons. <i>Journal of Applied Physics</i> , 2008, 104, 054513.	2.5	35
13	Analysis of laser-generated plasma ionizing radiation by synthetic single crystal diamond detectors. <i>Applied Surface Science</i> , 2013, 272, 104-108.	6.1	34
14	Single crystal CVD diamonds as neutron detectors at JET. <i>Fusion Engineering and Design</i> , 2009, 84, 1156-1159.	1.9	33
15	Synthetic single crystal diamond as a fission reactor neutron flux monitor. <i>Applied Physics Letters</i> , 2007, 90, 183509.	3.3	31
16	Synthetic single crystal diamond dosimeters for Intensity Modulated Radiation Therapy applications. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 608, 191-194.	1.6	31
17	Emerging switchable ultraviolet photoluminescence in dehydrated Zn/Al layered double hydroxide nanoplatelets. <i>Scientific Reports</i> , 2019, 9, 11498.	3.3	30
18	Dosimetric characterization of a microDiamond detector in clinical scanned carbon ion beams. <i>Medical Physics</i> , 2015, 42, 2085-2093.	3.0	29

#	ARTICLE	IF	CITATIONS
19	Design, realization, and characterization of a novel diamond detector prototype for FLASH radiotherapy dosimetry. <i>Medical Physics</i> , 2022, 49, 1902-1910.	3.0	29
20	Neutron Detectors Based Upon Artificial Single Crystal Diamond. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 2275-2279.	2.0	25
21	Single crystal artificial diamond detectors for VUV and soft X-rays measurements on JET thermonuclear fusion plasma. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 623, 726-730.	1.6	25
22	Trapping-detrapping defects in single crystal diamond films grown by chemical vapor deposition. <i>Applied Physics Letters</i> , 2005, 87, 222101.	3.3	24
23	Influence of surface crystal-orientation on transfer doping of V2O5/H-terminated diamond. <i>Applied Physics Letters</i> , 2018, 112, 181602.	3.3	23
24	Fission diamond detector tests at the ISIS spallation neutron source. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2011, 215, 313-315.	0.4	22
25	Influence of the metallic contact in extreme-ultraviolet and soft x-ray diamond based Schottky photodiodes. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	21
26	Spectrometric Performances of Monocrystalline Artificial Diamond Detectors Operated at High Temperature. <i>IEEE Transactions on Nuclear Science</i> , 2012, 59, 2416-2423.	2.0	20
27	A Novel Microdosimeter Based Upon Artificial Single Crystal Diamond. <i>IEEE Transactions on Nuclear Science</i> , 2012, 59, 2409-2415.	2.0	20
28	A synthetic diamond diode in volumetric modulated arc therapy dosimetry. <i>Medical Physics</i> , 2013, 40, 092103.	3.0	20
29	Development and high temperature testing by 14 MeV neutron irradiation of single crystal diamond detectors. <i>Journal of Instrumentation</i> , 2016, 11, C06008-C06008.	1.2	19
30	Extreme UV single crystal diamond Schottky photodiode in planar and transverse configuration. <i>Diamond and Related Materials</i> , 2010, 19, 78-82.	3.9	18
31	Raman scattering in boron-doped single-crystal diamond used to fabricate Schottky diode detectors. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 2476-2481.	2.3	17
32	High-temperature long-lasting stability assessment of a single-crystal diamond detector under high-flux neutron irradiation. <i>Europhysics Letters</i> , 2016, 116, 42001.	2.0	17
33	Characterization of damage induced by heavy neutron irradiation on multilayered L6iF-single crystal chemical vapor deposition diamond detectors. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	16
34	Improved performance in synthetic diamond neutron detectors: Application to boron neutron capture therapy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 612, 580-582.	1.6	16
35	Performance analysis of poly-, nano- and single-crystalline diamond-based photocathodes. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 595, 131-135.	1.6	15
36	Layered Double Hydroxides in Bioinspired Nanotechnology. <i>Crystals</i> , 2020, 10, 602.	2.2	15

#	ARTICLE	IF	CITATIONS
37	Application of a novel diamond detector for commissioning of FLASH radiotherapy electron beams. <i>Medical Physics</i> , 2022, 49, 5513-5522.	3.0	15
38	Radiotherapy electron beams collimated by small tubular applicators: characterization by silicon and diamond diodes. <i>Physics in Medicine and Biology</i> , 2013, 58, 8121-8133.	3.0	14
39	Dosimetric characterization of a synthetic single crystal diamond detector in a clinical 62 MeV ocular therapy proton beam. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 767, 310-317.	1.6	14
40	Transient lateral photovoltaic effect in synthetic single crystal diamond. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	14
41	Printing ZnO Inks: From Principles to Devices. <i>Crystals</i> , 2020, 10, 449.	2.2	14
42	X-Ray Detection by Using CVD Single Crystal Diamond Detector. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 849-852.	2.0	13
43	Synthetic single crystal diamond dosimeters for conformal radiation therapy application. <i>Diamond and Related Materials</i> , 2010, 19, 217-220.	3.9	13
44	Photo-physical properties of He-related color centers in diamond. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	13
45	Proton stopping measurements at low velocity in warm dense carbon. <i>Nature Communications</i> , 2022, 13, .	12.8	13
46	Thermal and fast neutron dosimetry using artificial single crystal diamond detectors. <i>Radiation Measurements</i> , 2011, 46, 1686-1689.	1.4	12
47	Artificial Intelligence Algorithm Enabled Industrial-Scale Graphene Characterization. <i>Crystals</i> , 2020, 10, 308.	2.2	12
48	Extreme UV single crystal diamond photodetectors by chemical vapor deposition. <i>Diamond and Related Materials</i> , 2005, 14, 1980-1983.	3.9	11
49	Fabrication and characterization of a Layered Double Hydroxide based catalase biosensor and a catalytic sensor for hydrogen peroxide determination. <i>Microchemical Journal</i> , 2021, 170, 106700.	4.5	11
50	Exciton condensation in homoepitaxial chemical vapor deposition diamond. <i>Journal of Applied Physics</i> , 2009, 106, 053528.	2.5	10
51	Lateral IBIC characterization of single crystal synthetic diamond detectors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 80-82.	2.4	10
52	Thermal neutron dosimeter by synthetic single crystal diamond devices. <i>Applied Radiation and Isotopes</i> , 2009, 67, S183-S185.	1.5	9
53	Development of On-Line Tritium Monitor Based Upon Artificial Diamond for Fusion Applications. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 1141-1144.	2.0	9
54	A novel synthetic single crystal diamond device for <i>in vivo</i> dosimetry. <i>Medical Physics</i> , 2015, 42, 4636-4644.	3.0	9

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55	X-ray beam monitor made by thin-film CVD single-crystal diamond. Journal of Synchrotron Radiation, 2012, 19, 1015-1020.	2.4	8
56	Analysis of the Response of CVD Diamond Detectors for UV and sX-Ray Plasma Diagnostics Installed at JET. Physics Procedia, 2015, 62, 79-83.	1.2	7
57	Systematic study of the response of single crystal diamond neutron detectors at high temperature. Journal of Instrumentation, 2020, 15, P03031-P03031.	1.2	7
58	A New Clark-Type Layered Double Hydroxides-Enzyme Biosensor for H <sub>2</sub> O <sub>2</sub> Determination in Highly Diluted Real Matrices: Milk and Cosmetics. Processes, 2021, 9, 1878.	2.8	7
59	Secondary electron emission in extreme-UV detectors: Application to diamond based devices. Journal of Applied Physics, 2011, 110, 014501.	2.5	6
60	Electrical conductivity of double textured black diamond films from RT to 800â€°K. Diamond and Related Materials, 2019, 93, 1-7.	3.9	6
61	On the Interaction between 1D Materials and Living Cells. Journal of Functional Biomaterials, 2020, 11, 40.	4.4	6
62	Metal-diamond-metal planar structures for off-angle UV beam positioning with high lateral resolution. Sensors and Actuators A: Physical, 2005, 123-124, 199-203.	4.1	4
63	Fission reactor flux monitors based on singleâ€crystal CVD diamond films. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2991-2996.	1.8	4
64	Diamond detectors for time-of-flight measurements in laser-generated plasmas. Radiation Effects and Defects in Solids, 2009, 164, 369-375.	1.2	4
65	Multistrip synthetic single-crystal-diamond photodiode based on a p-type/intrinsic/Schottky metal transverse configuration. Europhysics Letters, 2011, 94, 28004.	2.0	4
66	Transport and photo-conduction in carbon nanotube fibers. Applied Physics Letters, 2019, 115, .	3.3	4
67	Layered Double Hydroxides. Crystals, 2020, 10, 1050.	2.2	4
68	Layered Double Hydroxides as a Drug Delivery Vehicle for S-Allyl-Mercapto-Cysteine (SAMC). Processes, 2021, 9, 1819.	2.8	4
69	Analysis of trappingâ€detrapping defects in high quality single crystal diamond films grown by Chemical Vapor Deposition. Diamond and Related Materials, 2006, 15, 1878-1881.	3.9	3
70	Surface acoustic wave devices on AlN/single-crystal diamond for high frequency and high performances operation. , 2008, , .		3
71	Development of on-line tritium monitor based upon artificial diamond for fusion applications. , 2009, , .		3
72	High temperature operation of single crystal diamond detectors. , 2016, , .		3

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73	Thin-film CVD single-crystal diamonds for high-energy ion beam detection. Radiation Effects and Defects in Solids, 2009, 164, 363-368.	1.2	2
74	Neutron spectroscopy by means of artificial diamond detectors using a remote read out scheme. , 2009, , .		2
75	Diamond Based Schottky Photodiode for Radiation Therapy & In Vivo Dosimetry. Materials Science Forum, 0, 879, 95-100.	0.3	2
76	$^{13}\text{C}$ -E single crystal diamond based telescope. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 947, 162744.	1.6	2
77	Neutron Spectroscopy by Means of Artificial Diamond Detectors Using a Remote Read Out Scheme. IEEE Transactions on Nuclear Science, 2010, , .	2.0	1
78	Spectrometric performances of monocrystalline artificial diamond detectors operated at high temperature. , 2011, , .		1
79	Response to "Comment on "Experimental determination of the PTW 60019 microDiamond dosimeter active area and volume" [Med. Phys. 43, 6667 (2016)]. Medical Physics, 2016, 43, 6668-6668.	3.0	1
80	Length measurement and spatial orientation reconstruction of single nanowires. Nanotechnology, 2018, 29, 375704.	2.6	1
81	Simulation and test of a new MicroDosimeter based upon Single Crystal Diamond. , 2011, , .		0
82	Evaluation of a novel synthetic single crystal diamond device for in-vivo dosimetry. Physica Medica, 2014, 30, e67-e68.	0.7	0
83	Synthetic single crystal diamond diodes for radiotherapy dosimetry. , 2015, , .		0
84	EP-1730: Small field dosimetry by the PTW microDiamond: multicenter experimental study and MC simulations. Radiotherapy and Oncology, 2018, 127, S925.	0.6	0
85	OC-0284 Development of a novel diamond based Schottky diode detector for FLASH radiotherapy dosimetry. Radiotherapy and Oncology, 2022, 170, S244-S245.	0.6	0