Paul May

List of Publications by Year
in descending order

110 papers	4,458 citations	71102 41 h-index	110387 64 g-index
112 all docs	112 docs citations	112 times ranked	4502 citing authors

#	Article	IF	Citations
1	Ab initio study of negative electron affinity on the scandium-terminated diamond (100) surface for electron emission devices. Carbon, 2022, 196, 176-185.	10.3	6
2	Hunting the elusive shallow n-type donor â€“ An ab initio study of Li and N co-doped diamond. Carbon, 2021, 171, 857-868.	10.3	9
3	A review of surface functionalisation of diamond for thermionic emission applications. Carbon, 2021, 171, 532-550.	10.3	26
4	Hydrophobic behaviour of reduced graphene oxide thin film fabricated via electrostatic spray deposition. Bulletin of Materials Science, 2021, 44, 1.	1.7	8
5	Experimental Studies of Electron Affinity and Work Function from Aluminium on Oxidized Diamond (100) and (111) Surfaces. Physica Status Solidi (B): Basic Research, 2021, 258, 2100027.	1.5	5
6	Resolving physical interactions between bacteria and nanotopographies with focused ion beam scanning electron microscopy. IScience, 2021, 24, 102818.	4.1	8
7	Hydrophobicity and Adhesion of Aggregated Diamond Particles. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, .	1.8	1
8	Yu-Shiba-Rusinov bands in ferromagnetic superconducting diamond. Science Advances, 2020, 6, eaaz2536.	10.3	9
9	Nitrogen in Diamond. Chemical Reviews, 2020, 120, 5745-5794.	47.7	133
10	CVD Diamond and Nanodiamond: Versatile Materials for Countering a Wide Range of CBRN Threats. NATO Science for Peace and Security Series B: Physics and Biophysics, 2020, , 141-170.	0.3	0
11	Studies of Black Diamond as an antibacterial surface for Gram Negative bacteria: the interplay between chemical and mechanical bactericidal activity. Scientific Reports, 2019, 9, 8815.	3.3	29
12	<i>Ab initio</i> study of negative electron affinity from light metals on the oxygen-terminated diamond (1â€‰1â€‰1) surface. Journal of Physics Condensed Matter, 2019, 31, 295002.	1.8	10
13	Anomalous Anisotropy in Superconducting Nanodiamond Films Induced by Crystallite Geometry. Physical Review Applied, 2019, 12, .	3.8	5
14	Superconductor-insulator transition driven by pressure-tuned intergrain coupling in nanodiamond films. Physical Review Materials, 2019, 3, .	2.4	5
15	Studies of black silicon and black diamond as materials for antibacterial surfaces. Biomaterials Science, 2018, 6, 1424-1432.	5.4	64
16	Negative electron affinity from aluminium on the diamond (1â€‰0â€‰0) surface: a theoretical study. Journal of Physics Condensed Matter, 2018, 30, 235002.	1.8	15
17	Superconducting Ferromagnetic Nanodiamond. ACS Nano, 2017, 11, 5358-5366.	14.6	25
18	Direct observation of electron emission from CVD diamond grain boundaries by tunnelling atomic force microscopy independent of surface morphology. Diamond and Related Materials, 2017, 80, 147-152.	3.9	7

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19	Diamond thin films: giving biomedical applications a new shine. Journal of the Royal Society Interface, 2017, 14, 20170382.	3.4	69
20	Bosonic Confinement and Coherence in Disordered Nanodiamond Arrays. ACS Nano, 2017, 11, 11746-11754.	14.6	16
21	The â€˜Molecule of the Monthâ€™ Websiteâ€"An Extraordinary Chemistry Educational Resource Online for over 20 Years. Molecules, 2017, 22, 549.	3.8	4
22	High-pressure dc glow discharges in hollow diamond cathodes. Plasma Sources Science and Technology, 2016, 25, 025005.	3.1	4
23	Diamond-coated â€˜black siliconâ€™ as a promising material for high-surface-area electrochemical electrodes and antibacterial surfaces. Journal of Materials Chemistry B, 2016, 4, 5737-5746.	5.8	86
24	Promising electrochemical performance of high-surface-area boron-doped diamond/carbon nanotube electroanalytical sensors. Journal of Solid State Electrochemistry, 2016, 20, 2403-2409.	2.5	25
25	Photochemically modified diamond-like carbon surfaces for neural interfaces. Materials Science and Engineering C, 2016, 58, 1199-1206.	7.3	8
26	Direct observation of electron emission from grain boundaries in CVD diamond by PeakForce-controlled tunnelling atomic force microscopy. Carbon, 2015, 94, 386-395.	10.3	56
27	Deposition of CVD diamond onto Zirconium. Materials Research Society Symposia Proceedings, 2015, 1734, 13.	0.1	0
28	Long-term culture of pluripotent stem-cell-derived human neurons on diamond â€" A substrate for neurodegeneration research and therapy. Biomaterials, 2015, 61, 139-149.	11.4	47
29	Assisted deposition of nano-hydroxyapatite onto exfoliated carbon nanotube oxide scaffolds. Nanoscale, 2015, 7, 10218-10232.	5.6	54
30	Three-dimensional kinetic Monte Carlo simulations of diamond chemical vapor deposition. Journal of Chemical Physics, 2015, 142, 214707.	3.0	26
31	Nanofocusing optics for synchrotron radiation made from polycrystalline diamond. Optics Express, 2014, 22, 7657.	3.4	22
32	Direct observation of electron emission from the grain boundaries of chemical vapour deposition diamond films by tunneling atomic force microscopy. Applied Physics Letters, 2014, 104, .	3.3	26
33	Effect of Multi-Walled Carbon Nanotubes Incorporation on the Structure, Optical and Electrochemical Properties of Diamond-Like Carbon Thin Films. Journal of the Electrochemical Society, 2014, 161, H290-H295.	2.9	22
34	Incorporation of lithium and nitrogen into CVD diamond thin films. Diamond and Related Materials, 2014, 44, 1-7.	3.9	23
35	Porous Boron-Doped Diamond/Carbon Nanotube Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 990-995.	8.0	134
36	Electrochemical Performance of Porous Diamond-like Carbon Electrodes for Sensing Hormones, Neurotransmitters, and Endocrine Disruptors. ACS Applied Materials & Interfaces, 2014, 6, 21086-21092.	8.0	42

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37	Amine functionalized nanodiamond promotes cellular adhesion, proliferation and neurite outgrowth. Biomedical Materials (Bristol), 2014, 9, 045009.	3.3	56
38	Towards new binary compounds: Synthesis of amorphous phosphorus carbide by pulsed laser deposition. Journal of Solid State Chemistry, 2013, 198, 466-474.	2.9	53
39	Deep reactive ion etching of silicon moulds for the fabrication of diamond x-ray focusing lenses. Journal of Micromechanics and Microengineering, 2013, 23, 125018.	2.6	10
40	Field Emission from Hybrid Diamond-like Carbon and Carbon Nanotube Composite Structures. ACS Applied Materials & Interfaces, 2013, 5, 12238-12243.	8.0	69
41	Metalâ€"Bosonic Insulatorâ€"Superconductor Transition in Boron-Doped Granular Diamond. Physical Review Letters, 2013, 110, 077001.	7.8	44
42	In-situ Incorporation of Lithium and Nitrogen into CVD Diamond Thin Films. Materials Research Society Symposia Proceedings, 2012, 1511, 1.	0.1	1
43	Field emission from diamond-coated multiwalled carbon nanotube â€œteepeeâ€• structures. Journal of Applied Physics, 2012, 112, .	2.5	33
44	Effect of doping on electronic states in B-doped polycrystalline CVD diamond films. Semiconductor Science and Technology, 2012, 27, 065019.	2.0	9
45	Scaling of Hydrogen-Terminated Diamond FETs to Sub-100-nm Gate Dimensions. IEEE Electron Device Letters, 2011, 32, 599-601.	3.9	40
46	Intrinsic DC operation and performance potential of 50nm gate length hydrogen-terminated diamond field effect transistors. , 2011, , .		0
47	Spatially Controlling Neuronal Adhesion and Inflammatory Reactions on Implantable Diamond. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2011, 1, 557-565.	3.6	7
48	Simulations of CVD Diamond Film Growth: 2D Models for the identities and concentrations of gas-phase species adsorbing on the surface. Materials Research Society Symposia Proceedings, 2011, 1282, 9.	0.1	1
49	Comparative study of TL created in undoped CVD diamond by <i>Î²</i> rays, UV and visible light. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2119-2124.	1.8	3
50	Linear-supralinear-sublinear beta-ray dose dependences of TL, OSL and afterglow in undoped CVD diamond. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2125-2130.	1.8	9
51	Simulations of chemical vapor deposition diamond film growth using a kinetic Monte Carlo model and two-dimensional models of microwave plasma and hot filament chemical vapor deposition reactors. Journal of Applied Physics, 2010, 108, .	2.5	20
52	Simulations of chemical vapor deposition diamond film growth using a kinetic Monte Carlo model. Journal of Applied Physics, 2010, 108, .	2.5	33
53	A planar refractive x-ray lens made of nanocrystalline diamond. Journal of Applied Physics, 2010, 108, 123107.	2.5	39
54	Carbon nitride:<i>Ab initio</i>investigation of carbon-rich phases. Physical Review B, 2009, 80, .	3.2	48

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55	Electrospray Deposition of Diamond Nanoparticle Nucleation Layers for Subsequent CVD Diamond Growth. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	8
56	Correlation between thermally and optically stimulated luminescence in betaâ€irradiated undoped CVD diamond. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2098-2102.	1.8	2
57	Thermoluminescence assessment of 0.5, 1.0 and 4.0â€‰Âµm thick HFCVD undoped diamond films. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2103-2108.	1.8	12
58	Simplified Monte Carlo simulations of chemical vapour deposition diamond growth. Journal of Physics Condensed Matter, 2009, 21, 364203.	1.8	24
59	The New Diamond Age?. Science, 2008, 319, 1490-1491.	12.6	102
60	High resolution Deep Level Transient Spectroscopy of p-n diodes formed from p-type polycrystalline diamond on n-type silicon.. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	0
61	From Ultrananocrystalline Diamond to Single Crystal Diamond Growth in Hot Filament and Microwave Plasma-Enhanced CVD Reactors: a Unified Model for Growth Rates and Grain Sizes. Journal of Physical Chemistry C, 2008, 112, 12432-12441.	3.1	102
62	Growth of self-assembled ZnO nanoleaf from aqueous solution by pulsed laser ablation. Nanotechnology, 2007, 18, 215602.	2.6	38
63	Symmetric organization of self-assembled carbon nitride. Nanotechnology, 2007, 18, 335605.	2.6	4
64	Microcrystalline, nanocrystalline, and ultrananocrystalline diamond chemical vapor deposition: Experiment and modeling of the factors controlling growth rate, nucleation, and crystal size. Journal of Applied Physics, 2007, 101, 053115.	2.5	117
65	Hierarchical architecture of self-assembled carbon nitride nanocrystals. Journal of Materials Chemistry, 2007, 17, 1255.	6.7	16
66	Optimizing Biosensing Properties on Undecylenic Acid-Functionalized Diamond. Langmuir, 2007, 23, 5824-5830.	3.5	43
67	Ultra fine carbon nitride nanocrystals synthesized by laser ablation in liquid solution. Journal of Nanoparticle Research, 2007, 9, 1181-1185.	1.9	51
68	Direct Growth of Highly Organized Crystalline Carbon Nitride from Liquid-Phase Pulsed Laser Ablation. Chemistry of Materials, 2006, 18, 5058-5064.	6.7	58
69	Reevaluation of the mechanism for ultrananocrystalline diamond deposition from Arâˆ•CH4âˆ•H2 gas mixtures. Journal of Applied Physics, 2006, 99, 104907.	2.5	100
70	Raman spectroscopy of nanocrystalline diamond: Anab initioapproach. Physical Review B, 2006, 74, .	3.2	93
71	Experiment and modeling of the deposition of ultrananocrystalline diamond films using hot filament chemical vapor deposition and Arâˆ•CH4âˆ•H2 gas mixtures: A generalized mechanism for ultrananocrystalline diamond growth. Journal of Applied Physics, 2006, 100, 024301.	2.5	53
72	Raman spectroscopy of diamondoids. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2006, 64, 681-692.	3.9	64

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73	Infrared spectroscopic investigation of higher diamondoids. Journal of Molecular Spectroscopy, 2006, 238, 158-167.	1.2	45
74	Growth and characterization of self-assembled carbon nitride leaf-like nanostructures. Nanotechnology, 2006, 17, 5798-5804.	2.6	14
75	High temperature properties of SiC and diamond CVD-monofilaments. Journal of the European Ceramic Society, 2005, 25, 1929-1942.	5.7	47
76	Phosphorus carbides: theory and experiment. Dalton Transactions, 2004, , 3085.	3.3	75
77	Isolation and Structural Proof of the Large Diamond Molecule, Cyclohexamantane (C26H30). Angewandte Chemie, 2003, 115, 2086-2090.	2.0	21
78	Titelbild: Isolation and Structural Proof of the Large Diamond Molecule, Cyclohexamantane (C26H30) (Angew. Chem. 18/2003). Angewandte Chemie, 2003, 115, 2029-2029.	2.0	0
79	Isolation and Structural Proof of the Large Diamond Molecule, Cyclohexamantane (C26H30). Angewandte Chemie - International Edition, 2003, 42, 2040-2044.	13.8	116
80	Cover Picture: Isolation and Structural Proof of the Large Diamond Molecule, Cyclohexamantane (C26H30) (Angew. Chem. Int. Ed. 18/2003). Angewandte Chemie - International Edition, 2003, 42, 1983-1983.	13.8	0
81	Binary phosphorus-carbon compounds: The series P4C3+8n. International Journal of Quantum Chemistry, 2003, 95, 546-553.	2.0	16
82	Structural characterisation of CNx thin films deposited by pulsed laser ablation. Diamond and Related Materials, 2003, 12, 1049-1054.	3.9	40
83	Sulfur doping of diamond films: Spectroscopic, electronic, and gas-phase studies. Journal of Applied Physics, 2002, 91, 3605-3613.	2.5	35
84	DIAMOND-FIBRE REINFORCED PLASTIC COMPOSITES. International Journal of Modern Physics B, 2002, 16, 906-911.	2.0	4
85	Sulfur addition to microwave activated CH4/CO2 gas mixtures used for diamond CVD: growth studies and gas phase investigations. Physical Chemistry Chemical Physics, 2002, 4, 5199-5206.	2.8	5
86	Solid phosphorus carbide?. Chemical Communications, 2002, , 2494-2495.	4.1	16
87	Unravelling aspects of the gas phase chemistry involved in diamond chemical vapour deposition. Physical Chemistry Chemical Physics, 2001, 3, 3471-3485.	2.8	89
88	Modeling of the gas-phase chemistry in Câ€“Hâ€“O gas mixtures for diamond chemical vapor deposition. Journal of Applied Physics, 2001, 89, 5219-5223.	2.5	13
89	Low temperature diamond growth using CO2/CH4 plasmas: Molecular beam mass spectrometry and computer simulation investigations. Journal of Applied Physics, 2001, 89, 1484-1492.	2.5	59
90	Sputtering of grains in C-type shocks. Monthly Notices of the Royal Astronomical Society, 2000, 318, 809-816.	4.4	66

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91	Diamond thin films: a 21st-century material. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 473-495.	3.4	573
92	FIELD EMISSION STUDIES OF NITROGEN-DOPED DIAMOND-LIKE CARBON FILMS DEPOSITED USING CH4/N2/Ne and CH4/NH3/Ne RF PLASMAS. International Journal of Modern Physics B, 2000, 14, 295-300.	2.0	4
93	Impedance studies of boron-doped CVD diamond electrodes. Diamond and Related Materials, 2000, 9, 1181-1183.	3.9	46
94	Field emission from chemical vapor deposited diamond and diamond-like carbon films: Investigations of surface damage and conduction mechanisms. Journal of Applied Physics, 1998, 84, 1618-1625.	2.5	54
95	Field emission conduction mechanisms in chemical vapor deposited diamond and diamondlike carbon films. Applied Physics Letters, 1998, 72, 2182-2184.	3.3	63
96	Review of the Molecule of the Month Website in 1997. Molecules, 1998, 3, 16-19.	3.8	4
97	Sputtering of the refractory cores of interstellar grains. Monthly Notices of the Royal Astronomical Society, 1997, 285, 839-846.	4.4	27
98	Field emission properties of diamond films of different qualities. Applied Physics Letters, 1997, 71, 2337-2339.	3.3	48
99	Laser Raman Studies of Polycrystalline and Amorphic Diamond Films. Physica Status Solidi A, 1996, 154, 255-268.	1.7	18
100	The structure of MHD shocks in molecular outflows: grain sputtering and SiO formation. Monthly Notices of the Royal Astronomical Society, 1996, 280, 447-457.	4.4	45
101	Gasâ€phase composition measurements during chlorine assisted chemical vapor deposition of diamond: A molecular beam mass spectrometric study. Journal of Applied Physics, 1996, 79, 7264-7273.	2.5	51
102	A technique for the manufacture of long hollow diamond fibres by chemical vapour deposition. Journal of Materials Science Letters, 1995, 14, 1448-1450.	0.5	8
103	CVD diamond: a new technology for the future?. Endeavour, 1995, 19, 101-106.	0.4	87
104	Preparation of solid and hollow diamond fibres and the potential for diamond fibre metal matrix composites. Journal of Materials Science Letters, 1994, 13, 247-249.	0.5	17
105	Thin film diamond by chemical vapour deposition methods. Chemical Society Reviews, 1994, 23, 21.	38.1	192
106	Chemical vapour deposited diamond fibres: manufacture and potential properties. Materials Science and Technology, 1994, 10, 177-189.	1.6	19
107	Potential for diamond fibres and diamond fibre composites. Materials Science and Technology, 1994, 10, 505-512.	1.6	22
108	Monte Carlo simulations of electron distributions in the sheath region of reactiveâ€ionâ€etching plasmas. Journal of Applied Physics, 1993, 73, 1634-1643.	2.5	21

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109	Modeling radioâ€frequency discharges: Effects of collisions upon ion and neutral particle energy distributions. Journal of Applied Physics, 1992, 71, 3721-3730.	2.5	51
110	Ion energy distributions in radioâ€frequency discharges. Journal of Applied Physics, 1991, 70, 82-92.	2.5	56