

vincent Mortet

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5171688/publications.pdf>

Version: 2024-02-01

133
papers

2,620
citations

196777

29
h-index

263392

45
g-index

134
all docs

134
docs citations

134
times ranked

2772
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-resistance ohmic contacts on boron-doped {113} oriented homoepitaxial diamond layers. Diamond and Related Materials, 2022, 121, 108797.	1.8	6
2	Growth and comparison of high-quality MW PECVD grown B doped diamond layers on {118}, {115} and {113} single crystal diamond substrates. Diamond and Related Materials, 2022, 123, 108815.	1.8	9
3	Effect of substrate crystalline orientation on boron-doped homoepitaxial diamond growth. Diamond and Related Materials, 2022, 122, 108887.	1.8	3
4	Effect of pulsed methane gas flow on the incorporation of phosphorous in diamond. Diamond and Related Materials, 2022, 124, 108928.	1.8	4
5	Highly phosphorus-doped polycrystalline diamond growth and properties. Diamond and Related Materials, 2022, 125, 108964.	1.8	4
6	Multifunctional and Mechanically Robust Porous Diamond with Large Electroactive Surfaces via Electrically Conductive and Insulating Templates for 3D Electrode Applications. Advanced Materials Interfaces, 2022, 9, .	1.9	1
7	Pseudo-vertical Mo/Au Schottky diodes on {113} oriented boron doped homoepitaxial diamond layers. Diamond and Related Materials, 2022, 126, 109088.	1.8	2
8	Multifunctional and Mechanically Robust Porous Diamond with Large Electroactive Surfaces via Electrically Conductive and Insulating Templates for 3D Electrode Applications (Adv. Mater. Interfaces) Tj ETQq0 0 0.0gBT /Overlock 10 T		
9	Flow-through working electrode based on free-standing porous boron-doped diamond. Electrochimica Acta, 2022, 426, 140758.	2.6	1
10	Comparison of electrochemical performance of various boron-doped diamond electrodes: Dopamine sensing in biomimicking media used for cell cultivation. Bioelectrochemistry, 2021, 137, 107646.	2.4	26
11	Properties of boron-doped (113) oriented homoepitaxial diamond layers. Diamond and Related Materials, 2021, 111, 108223.	1.8	6
12	A Label-Free Diamond Microfluidic DNA Sensor Based on Active Nitrogen-Vacancy Center Charge State Control. ACS Applied Materials & Interfaces, 2021, 13, 18500-18510.	4.0	25
13	Enhancing electroanalytical performance of porous boron-doped diamond electrodes by increasing thickness for dopamine detection. Analytica Chimica Acta, 2021, 1182, 338949.	2.6	11
14	Study of cracks formation in HIGHLY " low boron-doped epitaxial (113) diamond bilayers. , 2021, , .		0
15	CHARACTERIZATION OF THE VERY LOW CONTACT RESISTANCE ON HEAVILY BORON DOPED (113) CVD DIAMOND. , 2021, , .		0
16	Study of Dynamic Gas Response of Microwave Plasma Enhanced Chemical Vapor Deposition Systems by Optical Emission Spectroscopy. , 2021, , .		0
17	Modeling current transport in boron-doped diamond at high electric fields including self-heating effect. Diamond and Related Materials, 2020, 109, 108003.	1.8	5
18	High-temperature PIN Diodes Based on Amorphous Hydrogenated Silicon-Carbon Alloys and Boron-Doped Diamond Thin Films. Physica Status Solidi (B): Basic Research, 2020, 257, 1900247.	0.7	4

#	ARTICLE	IF	CITATIONS
19	New perspectives for heavily boron-doped diamond Raman spectrum analysis. Carbon, 2020, 168, 319-327.	5.4	38
20	Low temperature synthesis of transparent conductive boron doped diamond films for optoelectronic applications: Role of hydrogen on the electrical properties. Applied Materials Today, 2020, 19, 100633.	2.3	8
21	Effect of the substrate crystalline orientation on the surface morphology and boron incorporation into epitaxial diamond layers. , 2020, , .		0
22	Microfluidic Diamond Biosensor Using NV Centre Charge State Detection. IFMBE Proceedings, 2019, , 27-31.	0.2	1
23	Optoelectronic Properties of Hydrogenated Amorphous Substoichiometric Silicon Carbide with Low Carbon Content Deposited on Semi-transparent Boron-doped Diamond. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900241.	0.8	5
24	Electrical and optical characteristics of boron doped nanocrystalline diamond films. Vacuum, 2019, 168, 108813.	1.6	8
25	Conductivity of boron-doped diamond at high electrical field. Diamond and Related Materials, 2019, 98, 107476.	1.8	4
26	Optical Contrast and Raman Spectroscopy Techniques Applied to Few-Layer 2D Hexagonal Boron Nitride. Nanomaterials, 2019, 9, 1047.	1.9	16
27	Porous boron doped diamond for dopamine sensing: Effect of boron doping level on morphology and electrochemical performance. Electrochimica Acta, 2019, 327, 135025.	2.6	49
28	Love-wave devices with continuous and discrete nanocrystalline diamond coating for biosensing applications. Sensors and Actuators A: Physical, 2019, 298, 111584.	2.0	7
29	Interaction of Love waves with coupled cavity modes in a 2D holey phononic crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1502-1505.	0.9	7
30	Determination of atomic boron concentration in heavily boron-doped diamond by Raman spectroscopy. Diamond and Related Materials, 2019, 93, 54-58.	1.8	47
31	Synthesis and properties of diamond - silicon carbide composite layers. Journal of Alloys and Compounds, 2019, 800, 327-333.	2.8	9
32	Electroluminescence of thin film <i>p-n</i> diodes based on a-SiC:H with integrated Ge nanoparticles. EPJ Applied Physics, 2019, 88, 30302.	0.3	5
33	Molecular Functionalization of Planar Nanocrystalline and Porous Nanostructured Diamond to Form an Interface with Newborn and Adult Neurons. Physica Status Solidi (B): Basic Research, 2019, 256, 1800424.	0.7	7
34	Nanocrystalline diamond films heavily doped by boron: structure, optical and electrical properties. , 2019, , .		0
35	Characteristics of zirconium and niobium contacts on boron-doped diamond. Diamond and Related Materials, 2018, 83, 184-189.	1.8	12
36	Raman scattering in boron doped nanocrystalline diamond films: Manifestation of Fano interference and phonon confinement effect. Solid State Communications, 2018, 276, 33-36.	0.9	11

#	ARTICLE	IF	CITATIONS
37	Comparison of ohmic contact formation of titanium and zirconium on boron doped diamond. MRS Advances, 2018, 3, 1931-1935.	0.5	0
38	Chemical modification of diamond surface by a donor-acceptor organic chromophore (P1): Optimization of surface chemistry and electronic properties of diamond. Applied Materials Today, 2018, 12, 153-162.	2.3	11
39	Precursor gas composition optimisation for large area boron doped nano-crystalline diamond growth by MW-LA-PECVD. Carbon, 2018, 128, 164-171.	5.4	26
40	Electrochemical characterization of porous boron-doped diamond prepared using SiO ₂ fiber template. Diamond and Related Materials, 2018, 87, 61-69.	1.8	36
41	Analysis of heavily boron-doped diamond Raman spectrum. Diamond and Related Materials, 2018, 88, 163-166.	1.8	52
42	Nanocrystalline Boron-Doped Diamond as a Corrosion-Resistant Anode for Water Oxidation via Si Photoelectrodes. ACS Applied Materials & Interfaces, 2018, 10, 29552-29564.	4.0	23
43	Insight into boron-doped diamond Raman spectra characteristic features. Carbon, 2017, 115, 279-284.	5.4	103
44	Optically transparent composite diamond/Ti electrodes. Carbon, 2017, 119, 179-189.	5.4	18
45	Fabrication of porous boron-doped diamond on SiO ₂ fiber templates. Carbon, 2017, 114, 457-464.	5.4	68
46	Formation and study of μ n structures based on two-phase hydrogenated silicon with a germanium layer in the i-type region. Semiconductors, 2017, 51, 1370-1376.	0.2	6
47	Diamond Coated LW-SAW Sensors-Study of Diamond Thickness Effect. Proceedings (mdpi), 2017, 1, .	0.2	0
48	LYRA, solar uv radiometer on the technology demonstration platform PROBA-2. , 2017, , .		0
49	Simultaneous determination of the residual stress, elastic modulus, density and thickness of ultrathin film utilizing vibrating doubly clamped micro/nanobeams. AIP Advances, 2016, 6, .	0.6	9
50	Peculiarities of high electric field conduction in p-type diamond. Applied Physics Letters, 2016, 108, .	1.5	7
51	n-Type phosphorus-doped nanocrystalline diamond: electrochemical and in situ Raman spectroelectrochemical study. RSC Advances, 2016, 6, 51387-51393.	1.7	12
52	Structural, optical and mechanical properties of thin diamond and silicon carbide layers grown by low pressure microwave linear antenna plasma enhanced chemical vapour deposition. Diamond and Related Materials, 2016, 69, 13-18.	1.8	20
53	A micro-scale hot wire anemometer based on low stress (Ni/W) multi-layers deposited on nano-crystalline diamond for air flow sensing. Journal of Micromechanics and Microengineering, 2015, 25, 125029.	1.5	21
54	Effect of plasma composition on nanocrystalline diamond layers deposited by a microwave linear antenna plasma-enhanced chemical vapour deposition system. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2418-2423.	0.8	15

#	ARTICLE	IF	CITATIONS
55	Simulations, fabrication, and characterization of diamond-coated Love wave-type surface acoustic wave sensors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2606-2610.	0.8	3
56	Comprehensive Study of the Electron Scattering Mechanisms in 4H-SiC MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 2562-2570.	1.6	51
57	High performance AlN-based surface acoustic wave sensors on TiN on (100) Silicon substrate. , 2015, , .		2
58	Impact of acceptor concentration on electrical properties and density of interface states of 4H-SiC n-metal-oxide-semiconductor field effect transistors studied by Hall effect. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	25
59	Properties of boron-doped epitaxial diamond layers grown on (110) oriented single crystal substrates. <i>Diamond and Related Materials</i> , 2015, 53, 29-34.	1.8	29
60	Boron-doped Diamond Electrodes: Electrochemical, Atomic Force Microscopy and Raman Study towards Corrosion-modifications at Nanoscale. <i>Electrochimica Acta</i> , 2015, 179, 626-636.	2.6	35
61	Investigation of magnetic field sensor based on (TbCo ₂ /FeCo) _n /AlN/TiN/NCD composite membrane. , 2015, , .		0
62	Effect of Bulk Potential Engineering on the Transport Properties of SiC MOSFETs: Characterization and Interpretation. <i>Materials Science Forum</i> , 2015, 821-823, 737-740.	0.3	0
63	Impact of Fabrication Process on Electrical Properties and on Interfacial Density of States in 4H-SiC n-MOSFETs Studied by Hall Effect. <i>Materials Science Forum</i> , 2014, 806, 127-132.	0.3	2
64	Dispersion properties and low infrared optical losses in epitaxial AlN on sapphire substrate in the visible and infrared range. <i>Journal of Applied Physics</i> , 2014, 115, 163515.	1.1	10
65	Hall Factor Calculation for the Characterization of Transport Properties in N-Channel 4H-SiC MOSFETs. <i>Materials Science Forum</i> , 2014, 778-780, 483-486.	0.3	3
66	Theoretical and experimental investigation of Lamb waves characteristics in AlN/TiN and AlN/TiN/NCD composite membranes. , 2014, , .		1
67	Hypersonic band gap in an AlN-TiN bilayer phononic crystal slab. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	10
68	Change of diamond film structure and morphology with N ₂ addition in MW PECVD apparatus with linear antenna delivery system. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2296-2301.	0.8	7
69	Large area deposition of boron doped nano-crystalline diamond films at low temperatures using microwave plasma enhanced chemical vapour deposition with linear antenna delivery. <i>Diamond and Related Materials</i> , 2014, 47, 27-34.	1.8	38
70	Large boron-interstitial cluster modelling in BF ₃ plasma implanted silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 117-120.	0.8	4
71	Characterization of n-channel MOSFETs: Electrical measurements and simulation analysis. , 2013, , .		4
72	Correlation of Interface Characteristics to Electron Mobility in Channel-Implanted 4H-SiC Mosfets. <i>Materials Science Forum</i> , 2013, 740-742, 537-540.	0.3	6

#	ARTICLE	IF	CITATIONS
73	Hexagonal boron nitride nanowalls: physical vapour deposition, 2D/3D morphology and spectroscopic analysis. Journal Physics D: Applied Physics, 2012, 45, 135302.	1.3	22
74	Thickness dependent residual stress in sputtered AlN thin films. Thin Solid Films, 2012, 522, 180-185.	0.8	30
75	Grain size tuning of nanocrystalline chemical vapor deposited diamond by continuous electrical bias growth: Experimental and theoretical study. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1675-1682.	0.8	33
76	BF[sub 3] PIII modeling: Implantation, amorphisation and diffusion. AIP Conference Proceedings, 2012, , .	0.3	2
77	Theoretical study of Lamb acoustic waves characteristics in a AlN/diamond composite membranes for Super High Frequency range operating devices. Diamond and Related Materials, 2012, 22, 66-69.	1.8	17
78	Theoretical Investigation of Grain Size Tuning during Prolonged Bias-Enhanced Nucleation. Chemistry of Materials, 2011, 23, 1414-1423.	3.2	11
79	Study on the giant positive magnetoresistance and Hall effect in ultrathin graphite flakes. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1252-1258.	0.8	9
80	Impurity impact ionization avalanche in p-type diamond. Applied Physics Letters, 2011, 99, 202105.	1.5	9
81	Hexagonal Boron Nitride Nanowalls Synthesized by Unbalanced RF Magnetron Sputtering. Materials Research Society Symposia Proceedings, 2011, 1307, 1.	0.1	0
82	Hall hole mobility in boron-doped homoepitaxial diamond. Physical Review B, 2010, 81, .	1.1	125
83	Diamond and Cubic Boron Nitride: Properties, Growth and Applications. AIP Conference Proceedings, 2010, , .	0.3	12
84	Design, fabrication and physical analysis of TiN/AlN deep UV photodiodes. Journal Physics D: Applied Physics, 2010, 43, 465104.	1.3	15
85	Incorporation of phosphorus donors in (110)-textured polycrystalline diamond. Journal of Applied Physics, 2009, 105, .	1.1	8
86	Characterization of Nano-crystalline Diamond Films Grown Under Continuous DC Bias During Plasma Enhanced Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	0
87	Thin film magnetoelectric composites near spin reorientation transition. Journal of Magnetism and Magnetic Materials, 2009, 321, 1803-1807.	1.0	17
88	AlN on nanocrystalline diamond piezoelectric cantilevers for sensors/actuators. Procedia Chemistry, 2009, 1, 40-43.	0.7	10
89	P-doped diamond grown on (110)-textured microcrystalline diamond: growth, characterization and devices. Journal of Physics Condensed Matter, 2009, 21, 364204.	0.7	28
90	Recent developments of wide-bandgap semiconductor based UV sensors. Diamond and Related Materials, 2009, 18, 860-864.	1.8	92

#	ARTICLE	IF	CITATIONS
91	The Diamond Nano-Balance. Journal of Nanoscience and Nanotechnology, 2009, 9, 3483-3486.	0.9	6
92	Diamond: a material for acoustic devices. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1009-1020.	0.8	31
93	Growth of polycrystalline phosphorous-doped CVD diamond layers. Chemical Physics Letters, 2008, 454, 310-313.	1.2	15
94	New developments on diamond photodetector for VUV solar observations. Semiconductor Science and Technology, 2008, 23, 035026.	1.0	38
95	Characterization of boron doped diamond epilayers grown in a NIRIM type reactor. Diamond and Related Materials, 2008, 17, 1330-1334.	1.8	48
96	Magnetolectric effect near spin reorientation transition in giant magnetostrictive-aluminum nitride thin film structure. Applied Physics Letters, 2008, 93, .	1.5	34
97	4E-5 Study of Temperature Coefficient of Frequency and Electromechanical Coupling Coefficient of X Band Frequency SAW Devices Based on AlN/Diamond Layered Structure. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	0
98	Nanocrystalline diamond enhanced thickness shear mode resonator. Applied Physics Letters, 2007, 90, 063514.	1.5	18
99	High-frequency surface acoustic wave devices based on AlN/diamond layered structure realized using e-beam lithography. Journal of Applied Physics, 2007, 101, 114507.	1.1	67
100	Combination of e-Beam Lithography and of High Velocity AlN/Diamond-Layered Structure for SAW Filters in X Band. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 1486-1491.	1.7	15
101	Titanium Nitride Grown by Sputtering for Contacts on Boron-Doped Diamond. Plasma Processes and Polymers, 2007, 4, S139-S143.	1.6	2
102	Diamond detectors for LYRA, the solar VUV radiometer on board PROBA2. Diamond and Related Materials, 2006, 15, 802-806.	1.8	25
103	Diamond - Application to piezoelectric bimorph cantilever sensors. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3185-3190.	0.8	9
104	LYRA, a solar UV radiometer on Proba2. Advances in Space Research, 2006, 37, 303-312.	1.2	80
105	5GHz surface acoustic wave devices based on aluminum nitride/diamond layered structure realized using electron beam lithography. Applied Physics Letters, 2006, 88, 223504.	1.5	86
106	Performance of diamond detectors for VUV applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 568, 398-405.	0.7	31
107	Radiometric characteristics of new diamond PIN photodiodes. Measurement Science and Technology, 2006, 17, 913-917.	1.4	38
108	Wide range pressure sensor based on a piezoelectric bimorph microcantilever. Applied Physics Letters, 2006, 88, 133511.	1.5	52

#	ARTICLE	IF	CITATIONS
109	Thin nanodiamond membranes and their microstructural, optical and photoelectrical properties. <i>Diamond and Related Materials</i> , 2005, 14, 393-397.	1.8	39
110	ZnO/AlN/diamond layered structure for SAW devices combining high velocity and high electromechanical coupling coefficient. <i>Diamond and Related Materials</i> , 2005, 14, 1175-1178.	1.8	54
111	Diamond growth by microwave plasma enhanced chemical vapour deposition: Optical emission characterisation and effect argon addition. <i>Physica Status Solidi A</i> , 2004, 201, 2425-2431.	1.7	8
112	Effect of diamond nucleation process on propagation losses of AlN/diamond SAW filter. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2004, 51, 1704-1709.	1.7	27
113	Investigation of diamond growth at high pressure by microwave plasma chemical vapor deposition. <i>Diamond and Related Materials</i> , 2004, 13, 604-609.	1.8	24
114	Physical properties of polycrystalline aluminium nitride films deposited by magnetron sputtering. <i>Diamond and Related Materials</i> , 2004, 13, 1120-1124.	1.8	56
115	Solar-Blind Diamond Detectors for Lyra, the Solar VUV Radiometer on Board Proba II. <i>Experimental Astronomy</i> , 2003, 16, 141-148.	1.6	9
116	Aluminium nitride films deposition by reactive triode sputtering for surface acoustic wave device applications. <i>Surface and Coatings Technology</i> , 2003, 176, 88-92.	2.2	50
117	Structural characterisations of AlN/diamond structures used for surface acoustic wave device applications. <i>Physica Status Solidi A</i> , 2003, 199, 145-150.	1.7	12
118	Study of aluminium nitride/freestanding diamond surface acoustic waves filters. <i>Diamond and Related Materials</i> , 2003, 12, 723-727.	1.8	29
119	High velocity SAW using aluminum nitride film on unpolished nucleation side of free-standing CVD diamond. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2003, 50, 710-715.	1.7	62
120	Piezoelectric Aluminum Nitride Films Deposited by Triode Sputtering for Surface Acoustic Wave Devices. <i>Ferroelectrics</i> , 2002, 273, 249-254.	0.3	4
121	Surface acoustic wave propagation in aluminum nitride-unpolished freestanding diamond structures. <i>Applied Physics Letters</i> , 2002, 81, 1720-1722.	1.5	100
122	Deposition of Aluminium Nitride Film by Magnetron Sputtering for Diamond-Based Surface Acoustic Wave Applications. <i>Physica Status Solidi A</i> , 2002, 193, 482-488.	1.7	30
123	Growth of cubic boron nitride films by ibad and triode sputtering: development of intrinsic stress. <i>Diamond and Related Materials</i> , 2001, 10, 2167-2173.	1.8	1
124	Dynamic stress investigations for cubic boron nitride films deposited by triode sputtering technique. <i>Surface and Coatings Technology</i> , 2001, 142-144, 899-905.	2.2	8
125	Physics of epitaxy and c-BN films optimized growth. <i>Computational Materials Science</i> , 2000, 17, 520-524.	1.4	1
126	Structure investigation of BN films grown by ion-beam-assisted deposition by means of polarised IR and Raman spectroscopy. <i>Surface and Coatings Technology</i> , 1999, 116-119, 93-99.	2.2	19

#	ARTICLE	IF	CITATIONS
127	Synthesis and characterization of c-BN films prepared by ion beam assisted deposition and triode sputtering. Thin Solid Films, 1999, 355-356, 89-95.	0.8	16
128	Effect of the nucleation process on freestanding ALN/diamond SAW filter characteristics. , 0, , .		4
129	Comparative Study of Electrical and Microstructural Properties of 4H-SiC MOSFETs. Materials Science Forum, 0, 717-720, 437-440.	0.3	11
130	Nano-Analytical and Electrical Characterization of 4H-SiC MOSFETs. Materials Science Forum, 0, 711, 134-138.	0.3	3
131	Verification of Near-Interface Traps Models by Electrical Measurements on 4H-SiC n-Channel Mosfets. Materials Science Forum, 0, 740-742, 533-536.	0.3	6
132	Hall Effect Characterization of 4H-SiC MOSFETs: Influence of Nitrogen Channel Implantation. Materials Science Forum, 0, 740-742, 525-528.	0.3	7
133	Systematic Analysis of the High- and Low-Field Channel Mobility in Lateral 4H-SiC MOSFETs. Materials Science Forum, 0, 778-780, 583-586.	0.3	4