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List of Publications by Year
in descending order

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118 papers	2,676 citations	159358 30 h-index	243296 44 g-index
118 all docs	118 docs citations	118 times ranked	1745 citing authors

#	Article	IF	Citations
1	The NO2 response of solid electrolyte sensors made using nano-sized LaFeO3 electrodes. Sensors and Actuators B: Chemical, 2001, 76, 483-488.	4.0	119
2	Chemically vapour deposited diamond coatings on cemented tungsten carbides: Substrate pretreatments, adhesion and cutting performance. Thin Solid Films, 2006, 515, 4-13.	0.8	118
3	Effect of synthetic route on sintering behaviour, phase purity and conductivity of Sr- and Mg-doped LaGaO3 perovskites. Journal of the European Ceramic Society, 2004, 24, 1365-1370.	2.8	87
4	A study of diamond film deposition on WCâ€“Co inserts for graphite machining: Effectiveness of SiC interlayers prepared by HFCVD. Diamond and Related Materials, 2008, 17, 1008-1014.	1.8	77
5	Solar Thermionicâ€Thermoelectric Generator (ST²G): Concept, Materials Engineering, and Prototype Demonstration. Advanced Energy Materials, 2018, 8, 1802310.	10.2	77
6	Black diamond for solar energy conversion. Carbon, 2016, 105, 401-407.	5.4	70
7	High performance anode-supported intermediate temperature solid oxide fuel cells (IT-SOFCs) with La0.8Sr0.2Ga0.8Mg0.2O3â^'Î´ electrolyte films prepared by electrophoretic deposition. Electrochemistry Communications, 2009, 11, 1680-1683.	2.3	69
8	Performance and characterisation of CVD diamond coated, sintered diamond and WCâ€“Co cutting tools for dental and micromachining applications. Thin Solid Films, 2004, 447-448, 455-461.	0.8	67
9	Solâ€“gel synthesis, X-ray photoelectron spectroscopy and electrical conductivity of Co-doped (La,) Tj ETQq1 1 0.784314 rgBT /Overl	2.8	59
10	Crossâ€Linking of Sulfonated Poly(ether ether ketone) by Thermal Treatment: How Does the Reaction Occur?. Fuel Cells, 2013, 13, 107-117.	1.5	56
11	Comparison between plasma- and HVOF-sprayed ceramic coatings. Part I: microstructure and mechanical properties. International Journal of Surface Science and Engineering, 2007, 1, 38.	0.4	52
12	Dry turning of alumina/aluminum composites with CVD diamond coated Co-cemented tungsten carbide tools. Surface and Coatings Technology, 2003, 166, 127-134.	2.2	50
13	On the use of CrN/Cr and CrN interlayers in hot filament chemical vapour deposition (HF-CVD) of diamond films onto WC-Co substrates. Diamond and Related Materials, 2008, 17, 325-335.	1.8	50
14	Wear resistance of nano- and micro-crystalline diamond coatings onto WCâ€“Co with Cr/CrN interlayers. Thin Solid Films, 2010, 519, 1629-1635.	0.8	48
15	A model kinetics for nucleation at a solid surface with application to diamond deposition from the gas phase. Journal of Applied Physics, 1991, 70, 7573-7578.	1.1	47
16	Deep-Subwavelength 2D Periodic Surface Nanostructures on Diamond by Double-Pulse Femtosecond Laser Irradiation. Nano Letters, 2021, 21, 4477-4483.	4.5	47
17	Effect of substrate grain size and surface treatments on the cutting properties of diamond coated Co-cemented tungsten carbide tools. Diamond and Related Materials, 2002, 11, 726-730.	1.8	44
18	Cutting performance of time-modulated chemical vapour deposited diamond coated tool inserts during machining graphite. Diamond and Related Materials, 2006, 15, 1753-1758.	1.8	43

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19	Quantitative determination of the adhesive fracture toughness of CVD diamond to WCâ€“Co cemented carbide. Diamond and Related Materials, 2000, 9, 191-194.	1.8	42
20	Hot filament chemical vapour deposition and wear resistance of diamond films on WC-Co substrates coated using PVD-arc deposition technique. Diamond and Related Materials, 2006, 15, 1284-1291.	1.8	40
21	Cutting performance and indentation behaviour of diamond films on Co-cemented tungsten carbide. Surface and Coatings Technology, 2000, 123, 78-83.	2.2	39
22	Enhancing nucleation density and adhesion of polycrystalline diamond films deposited by HFCVD using surface treaments on Co cemented tungsten carbide. Diamond and Related Materials, 2004, 13, 610-615.	1.8	38
23	Uncoupling crystal growth and nucleation in the deposition of diamond from the gas phase. Journal of Materials Research, 1992, 7, 1778-1787.	1.2	35
24	The effect of humidity on the voltageâ€“current characteristic of SnO2 based ceramic varistor. Journal of the European Ceramic Society, 2004, 24, 2597-2604.	2.8	35
25	Optical characterization of double-nanotextured black diamond films. Carbon, 2018, 138, 384-389.	5.4	35
26	Effects of Ti- and Zr-based interlayer coatings on the hot filament chemical vapour deposition of diamond on high speed steel. Thin Solid Films, 2006, 494, 116-122.	0.8	34
27	Crosslinked SPEEK membranes: Mechanical, thermal, and hydrothermal properties. Journal of Materials Research, 2012, 27, 1950-1957.	1.2	34
28	Optimization of black diamond films for solar energy conversion. Applied Surface Science, 2016, 380, 8-11.	3.1	33
29	Chemical vapour deposition diamond coating on tungsten carbide dental cutting tools. Journal of Physics Condensed Matter, 2003, 15, S2961-S2967.	0.7	32
30	Thermal stability and surface modifications of detonation diamond nanoparticles studied with X-ray photoelectron spectroscopy. Diamond and Related Materials, 2010, 19, 846-853.	1.8	32
31	Nucleation and Growth of Diamond Films on Ni-Cemented Tungsten Carbide: Effects of Substrate Pretreatments. Journal of the American Ceramic Society, 1994, 77, 2043-2048.	1.9	31
32	Chemical synthesis and sintering behaviour of highly dispersed W/Cu composite powders. Journal of Materials Science, 2001, 36, 901-907.	1.7	30
33	Thermal crosslinked and nanodiamond reinforced SPEEK composite membrane for PEMFC. International Journal of Hydrogen Energy, 2013, 38, 3346-3351.	3.8	30
34	Characterization and sliding behavior of HFCVD diamond coatings on WCâ€“Co. Wear, 2001, 249, 461-472.	1.5	27
35	Proton Mobility in Sulfonated PolyEtherEtherKetone (SPEEK): Influence of Thermal Crosslinking and Annealing. Fuel Cells, 2013, 13, 79-85.	1.5	27
36	Cutting force and wear evaluation in peripheral milling by CVD diamond dental tools. Thin Solid Films, 2004, 469-470, 161-166.	0.8	26

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37	Electrophoretic Deposition of Dense Srâ€•and Mgâ€Doped LaGaO₃ Electrolyte Films on Porous Laâ€Doped Ceria for Intermediate Temperature Solid Oxide Fuel Cells. Fuel Cells, 2008, 8, 344-350.	1.5	25
38	Enhanced selective solar absorption of surface nanotextured semi-insulating 6Hâ€“SiC. Optical Materials, 2020, 107, 109967.	1.7	25
39	Raman spectroscopy characterization of diamond films on steel substrates with titanium carbide arc-plated interlayer. Thin Solid Films, 2006, 515, 1011-1016.	0.8	24
40	Nucleation and Adhesion of Diamond Films on Co Cemented Tungsten Carbide. Journal of the Electrochemical Society, 1999, 146, 4490-4498.	1.3	22
41	Adherent diamond coatings on cemented tungsten carbide substrates with new Fe/Ni/Co binder phase. Thin Solid Films, 2006, 494, 133-140.	0.8	21
42	Al2O3 thin coating of AA 6082 T6 components using a fast regime fluidized bed. Thin Solid Films, 2006, 515, 141-151.	0.8	21
43	Recent Advances in the Deposition of Diamond Coatings on Co-Cemented Tungsten Carbides. Advances in Materials Science and Engineering, 2012, 2012, 1-14.	1.0	21
44	Chemical Vapor Deposition of Highly Adherent Diamond Coatings onto Co-Cemented Tungsten Carbides Irradiated by High Power Diode Laser. ACS Applied Materials & Interfaces, 2012, 4, 694-701.	4.0	21
45	Diamond crystallite formation on Si(100) from the gas phase: Seeding or heterogeneous nucleation?. Applied Physics Letters, 1992, 61, 1287-1289.	1.5	20
46	Effect of WC grain growth inhibitors on the adhesion of chemical vapor deposition diamond films on WCâ€“Co cemented carbide. Diamond and Related Materials, 2002, 11, 242-248.	1.8	20
47	Solâ€“gel synthesis and characterization of Co-doped LSGM perovskites. Journal of the European Ceramic Society, 2005, 25, 2593-2598.	2.8	20
48	Nanostructured tungsten carbide synthesis by carbothermic reduction of scheelite: A comprehensive study. International Journal of Refractory Metals and Hard Materials, 2015, 51, 289-300.	1.7	20
49	UHV arc for high quality film deposition. Surface and Coatings Technology, 2006, 201, 3987-3992.	2.2	19
50	In situ study of the initial stages of diamond deposition on 3Câ€“SiC (100) surfaces: Towards the mechanisms of diamond nucleation. Diamond and Related Materials, 2007, 16, 690-694.	1.8	19
51	LIPSS Applied to Wide Bandgap Semiconductors and Dielectrics: Assessment and Future Perspectives. Materials, 2022, 15, 1378.	1.3	19
52	Diamond nucleation on cleaved Si(111). Journal of Applied Physics, 1992, 72, 2517-2519.	1.1	18
53	A study of diamond synthesis on glassy carbon by the hot filament chemical vapour deposition technique. Diamond and Related Materials, 1992, 1, 969-977.	1.8	17
54	Diamond crystallites nucleation on sintered tungsten: temperature and thermal treatment effects. Diamond and Related Materials, 1992, 1, 205-210.	1.8	17

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55	Early Stages of Diamondâ€Film Formation on Cobaltâ€Cemented Tungsten Carbide. Journal of the American Ceramic Society, 1999, 82, 1429-1435.	1.9	17
56	Surface Science Contribution to the BEN Control on Si(100) and 3Câ€SiC(100): Towards Ultrathin Nanocrystalline Diamond Films. Chemical Vapor Deposition, 2008, 14, 187-195.	1.4	17
57	All-carbon THz components based on laser-treated diamond. Carbon, 2020, 163, 197-201.	5.4	17
58	Nanocrystalline lanthanum boride thin films by femtosecond pulsed laser deposition as efficient emitters in hybrid thermionic-photovoltaic energy converters. Applied Surface Science, 2020, 513, 145829.	3.1	17
59	Chemical vapour deposition of diamond films onto tungsten carbide dental burs. Tribology International, 2004, 37, 957-964.	3.0	16
60	Fluidized bed micro-machining and HFCVD of diamond films onto Co-cemented tungsten carbide (WC-Co) hardmetal slabs. Thin Solid Films, 2006, 515, 87-94.	0.8	16
61	Surface characterisation of silicon substrates seeded with diamond nanoparticles under UHV annealing. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2108-2113.	0.8	16
62	Lanthanum (oxy)boride thin films for thermionic emission applications. Applied Surface Science, 2019, 479, 296-302.	3.1	16
63	Role of the support and of the preparation method for copper-based catalysts in the 2-propanol decomposition. Catalysis Letters, 1992, 14, 15-25.	1.4	15
64	Effect of WC-Co substrates pre-treatment and microstructure on the adhesive toughness of CVD diamond. Diamond and Related Materials, 2001, 10, 786-789.	1.8	15
65	Diamond nucleation from the gas phase onto cold-worked Co-cemented tungsten carbide. Diamond and Related Materials, 2003, 12, 340-345.	1.8	15
66	Absorptance enhancement in fsâ€laserâ€treated CVD diamond. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2463-2467.	0.8	15
67	ZnSb-based thin films prepared by ns-PLD for thermoelectric applications. Applied Surface Science, 2017, 418, 589-593.	3.1	15
68	Dielectric Microâ€and Subâ€Micrometric Spacers for Highâ€Temperature Energy Converters. Energy Technology, 2021, 9, .	1.8	15
69	Catalytic behavior and surface chemistry of Copper/ZnO/Al2O3 catalysts for the decomposition of 2-propanol. Journal of Catalysis, 1992, 136, 86-95.	3.1	14
70	Novel concepts and nanostructured materials for thermionic-based solar and thermal energy converters. Nanotechnology, 2021, 32, 024002.	1.3	14
71	Effect of the impingement on the kinetics of island aggregation in the post-nucleation stage of film growth at solid surfaces. Applied Surface Science, 1999, 152, 126-130.	3.1	13
72	Synthesis of scheelite nanoparticles by mechanically assisted solid-state reaction of wolframite and calcium carbonate. Minerals Engineering, 2019, 138, 133-138.	1.8	13

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73	Analysis of size distribution functions of diamond crystallites formed in the early stages of chemical vapour deposition. Diamond and Related Materials, 1995, 4, 1311-1316.	1.8	12
74	Lattice disorder and texture in diamond coatings deposited by HFCVD on Co-cemented tungsten carbide. Thin Solid Films, 1996, 290-291, 136-142.	0.8	12
75	EFFECT OF COATING ROUGHNESS ON PERFORMANCE OF SMALL CVD DIAMOND COATED TOOLS. Machining Science and Technology, 2008, 12, 390-404.	1.4	12
76	Infrared absorption of fs-laserÂtextured CVD diamond. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	12
77	A Raman Study of Diamond Film Growth on Coâ€Cemented Tungsten Carbide. Journal of the Electrochemical Society, 1997, 144, 1371-1375.	1.3	11
78	A Simple and Versatile Solâ€“Gel Method for the Synthesis of Functional Nanocrystalline Oxides. Journal of Nanoscience and Nanotechnology, 2005, 5, 592-595.	0.9	11
79	Effect of 3C-SiC(100) initial surface stoichiometry on bias enhanced diamond nucleation. Applied Physics Letters, 2007, 90, 044101.	1.5	11
80	Fs-pulsed laser deposition of PbTe and PbTe/Ag thermoelectric thin films. Applied Physics A: Materials Science and Processing, 2014, 117, 401-407.	1.1	11
81	Effects of Ti- and Zr-Based Interlayer Coatings on Hot-Filament Chemical Vapor Deposition of Diamond on High-Speed Steel. Journal of Materials Engineering and Performance, 2006, 15, 201-207.	1.2	10
82	Ultra-thin films of barium fluoride with low work function for thermionic-thermophotovoltaic applications. Materials Chemistry and Physics, 2020, 249, 122989.	2.0	10
83	Electrophoretic Deposition of Dense La_{0.8}Sr_{0.2}Ga_{0.8}Mg_{0.115}Co_{0.085}O_{3â^'Î´} Electrolyte Films from Singleâ€Phase Powders for Intermediate Temperature Solid Oxide Fuel Cells. Journal of the American Ceramic Society, 2009, 92, 1999-2004.	1.9	9
84	Impact of Laser Wavelength on the Optical and Electronic Properties of Black Diamond. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700250.	0.8	9
85	Toward Greener Synthesis of WC Powders for Cemented Tungsten Carbides Manufacturing. ACS Sustainable Chemistry and Engineering, 2021, 9, 8458-8466.	3.2	9
86	Effect of carbon excess and milling conditions on the synthesis of nanostructured WC by carbothermic reduction of scheelite (CaWO4). International Journal of Refractory Metals and Hard Materials, 2016, 54, 178-185.	1.7	8
87	A Study of Diamond Synthesis by Hot Filament Chemical Vapor Deposition on Nc Coatings. Journal of Materials Engineering and Performance, 2006, 15, 218-222.	1.2	7
88	Early stages of the HFCVD process on multi-vicinal silicon surfaces studied by electron microscopy probes (SEM, TEM). Diamond and Related Materials, 2001, 10, 1612-1616.	1.8	6
89	Chemical vapour infiltration of nano-structured carbon in porous silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2049-2053.	0.8	6
90	Aluminum (Oxy)nitride thin films grown by fs-PLD as electron emitters for thermionic applications. AIP Conference Proceedings, 2021, , .	0.3	6

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91	Study of early stages of diamond nucleation and growth by combined use of SEM and AES techniques. Applied Surface Science, 1992, 56-58, 100-103.	3.1	5
92	Nucleation and Growth of Diamond Films on Ni-Cemented Tungsten Carbide: II, Effects of Deposition Conditions. Journal of the American Ceramic Society, 1995, 78, 2431-2436.	1.9	5
93	Quantitative comparison of adhesive toughness for various diamond films on co-cemented tungsten carbide. Diamond and Related Materials, 2002, 11, 716-720.	1.8	5
94	A study of diamond synthesis by hot filament chemical vapour deposition on nanocomposite coatings. Thin Solid Films, 2005, 489, 116-121.	0.8	5
95	Size tailoring of WC particles in the carbothermic reduction of scheelite (CaWO4). International Journal of Refractory Metals and Hard Materials, 2017, 64, 75-82.	1.7	5
96	Femtosecond-Laser Nanostructuring of Black Diamond Films under Different Gas Environments. Materials, 2020, 13, 5761.	1.3	5
97	Determination of the â€œoverallâ€•nucleation density on tungsten: a new treatment of the data. Diamond and Related Materials, 1993, 2, 952-957.	1.8	4
98	Diamond Synthesis on Silicon Nitride by the Hot Filament Chemical Vapor Deposition Technique. Journal of the Ceramic Society of Japan, 1998, 106, 1167-1171.	1.3	4
99	Comparative Investigation of Smooth Polycrystalline Diamond Films on Dental Burs by Chemical Vapor Deposition. Journal of Materials Engineering and Performance, 2006, 15, 195-200.	1.2	4
100	HF-CVD of diamond coatings onto Fluidized Bed (FB) treated CrN interlayers. Thin Solid Films, 2010, 519, 1594-1599.	0.8	4
101	Confined Functionalization of Mesoporous Silicon Layers. Journal of the Electrochemical Society, 2011, 158, K35.	1.3	4
102	Carbothermic reduction of scheelite (CaWO4) doped with cobalt or nickel. International Journal of Refractory Metals and Hard Materials, 2016, 59, 93-99.	1.7	4
103	Work function and negative electron affinity of ultrathin barium fluoride films. Surface and Interface Analysis, 2020, 52, 968-974.	0.8	4
104	A Non-Hydrolytic Sol-Gel Approach for the Preparation of MgxAl2(1-x)Ti(1+x)O5Powders. Journal of Sol-Gel Science and Technology, 2004, 31, 95-98.	1.1	3
105	Degradation of oxide varistor ceramics in air atmosphere containing NO2 at elevated temperatures. Journal of the European Ceramic Society, 2004, 24, 1213-1216.	2.8	3
106	HFCVD nanostructured diamond films deposited by a combination of seeding suspensions and novel nucleation process. International Journal of Surface Science and Engineering, 2017, 11, 225.	0.4	3
107	Deposition and Characterisation of Niobium Films for SRF Cavity Application. , 2007, , .		2
108	<title>Recent achievements in ultra-high vacuum arc deposition of superconducting Nb layers</title>. Proceedings of SPIE, 2007, , .	0.8	2

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109	Thermoelectric Analysis of ZnSb Thin Films Prepared by ns-Pulsed Laser Deposition. Journal of Nanoscience and Nanotechnology, 2017, 17, 1564-1570.	0.9	2
110	Charge Transport Mechanisms of Black Diamond at Cryogenic Temperatures. Nanomaterials, 2022, 12, 2253.	1.9	2
111	BEN-HFCVD effects on diamond nucleation on iridium: a Raman imaging study. Physica Status Solidi A, 2005, 202, 2073-2078.	1.7	1
112	Effects of the bias enhanced nucleation hot-filament chemical-vapor deposition parameters on diamond nucleation on iridium. Journal of Applied Physics, 2005, 98, 033521.	1.1	1
113	Properties of Composite Membranes of SPEEK and Nanodiamond. Materials Research Society Symposia Proceedings, 2012, 1384, 1.	0.1	1
114	Direct synthesis of highly reactive nanostructured scheelite from enriched wolframite and calcium oxide through planetary ball milling. Materials Today Communications, 2020, 24, 101032.	0.9	1
115	Early stages of nucleation and growth of diamond film by AES, SEM, UPS and optical reflectivity techniques: Surface composition. Physica B: Condensed Matter, 1993, 185, 94-98.	1.3	0
116	Performance and characterisation of CVD diamond coated, sintered diamond and WCâ€“Co cutting tools for dental and micromachining applications. Thin Solid Films, 2003, 447-448, 455-455.	0.8	0
117	Electrochemical behaviour of Co-doped LSGM perovskites prepared by sol-gel synthesis. Materials Research Society Symposia Proceedings, 2004, 835, K3.15.1.	0.1	0
118	Nanostructured sp²-Carbon Infiltration of Mesoporous Silicon Layers. Journal of Nanoscience and Nanotechnology, 2009, 9, 3927-3931.	0.9	0