Jeffrey T Glass

List of Publications by Year
in descending order

124 papers	6,347 citations	66234 42 h-index	66788 78 g-index
127 all docs	127 docs citations	127 times ranked	4576 citing authors

#	Article	IF	Citations
1	Polyethylenimine-Enhanced Electrocatalytic Reduction of CO₂ to Formate at Nitrogen-Doped Carbon Nanomaterials. Journal of the American Chemical Society, 2014, 136, 7845-7848.	6.6	591
2	Analysis of the composite structures in diamond thin films by Raman spectroscopy. Physical Review B, 1990, 41, 3738-3745.	1.1	532
3	Textured diamond growth on (100) Î²â€SiC via microwave plasma chemical vapor deposition. Applied Physics Letters, 1992, 60, 698-700.	1.5	385
4	Textured growth of diamond on silicon viain situcarburization and biasâ€enhanced nucleation. Applied Physics Letters, 1993, 62, 1215-1217.	1.5	325
5	Characterization of diamond thin films: Diamond phase identification, surface morphology, and defect structures. Journal of Materials Research, 1989, 4, 373-384.	1.2	256
6	Critical evaluation of the status of the areas for future research regarding the wide band gap semiconductors diamond, gallium nitride and silicon carbide. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1988, 1, 77-104.	1.7	227
7	Chemical vapor deposition and characterization of 6Hâ€SiC thin films on offâ€axis 6Hâ€SiC substrates. Journal of Applied Physics, 1988, 64, 2672-2679.	1.1	213
8	Material and electrical characterization of polycrystalline boronâ€doped diamond films grown by microwave plasma chemical vapor deposition. Journal of Applied Physics, 1991, 69, 3142-3148.	1.1	149
9	Correlation of the electrical properties of metal contacts on diamond films with the chemical nature of the metal-diamond interface. II. Titanium contacts: A carbide-forming metal. Physical Review B, 1992, 45, 11975-11981.	1.1	136
10	The origin of the broadband luminescence and the effect of nitrogen doping on the optical properties of diamond films. Journal of Applied Physics, 1994, 76, 3020-3027.	1.1	129
11	Oriented diamond films grown on nickel substrates. Applied Physics Letters, 1993, 63, 1640-1642.	1.5	109
12	Epitaxial nucleation of diamond on Î²-SiC via bias-enhanced microwave plasma chemical vapor deposition. Diamond and Related Materials, 1993, 2, 142-146.	1.8	103
13	An examination of double positioning boundaries and interface misfit in betaâ€SiC films on alphaâ€SiC substrates. Journal of Applied Physics, 1988, 63, 2645-2650.	1.1	94
14	Electron emission from diamond coated silicon field emitters. Applied Physics Letters, 1994, 65, 2842-2844.	1.5	93
15	The Effect of Metallurgical Variables on the Electrocatalytic Properties of PtCr Alloys. Journal of the Electrochemical Society, 1987, 134, 58-65.	1.3	92
16	Growth rate, surface morphology, and defect microstructures of Î²â€"SiC films chemically vapor deposited on 6Hâ€"SiC substrates. Journal of Materials Research, 1989, 4, 204-214.	1.2	91
17	Twinning and faceting in early stages of diamond growth by chemical vapor deposition. Journal of Materials Research, 1992, 7, 3001-3009.	1.2	90
18	Microphotoluminescence and Raman scattering study of defect formation in diamond films. Journal of Applied Physics, 1993, 73, 3951-3957.	1.1	89

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19	Nucleation of oriented diamond films on nickel substrates. Journal of Materials Research, 1993, 8, 1773-1776.	1.2	84
20	Oriented nucleation and growth of diamond films on Î²â€SiC and Si. Applied Physics Letters, 1993, 63, 1792-1794.	1.5	84
21	<i>In situ</i> growth rate measurement and nucleation enhancement for microwave plasma CVD of diamond. Journal of Materials Research, 1992, 7, 257-260.	1.2	80
22	Solution-Processed, Antimony-Doped Tin Oxide Colloid Films Enable High-Performance TiO₂ Photoanodes for Water Splitting. Nano Letters, 2013, 13, 1481-1488.	4.5	79
23	Diamond and Î²-SiC heteroepitaxial interfaces: A theoretical and experimental study. Physical Review B, 1993, 47, 6529-6542.	1.1	78
24	Epitaxial growth of Î²â€SiC thin films on 6HÎ±â€SiC substrates via chemical vapor deposition. Applied Physics Letters, 1986, 49, 1074-1076.	1.5	75
25	Largeâ€area mosaic diamond films approaching singleâ€crystal quality. Applied Physics Letters, 1991, 58, 2485-2487.	1.5	74
26	Field emission characteristics of diamond coated silicon field emitters. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 422.	1.6	71
27	Electron microscopy of vapor phase deposited diamond. Journal of Materials Research, 1990, 5, 801-810.	1.2	68
28	Three-dimensional arrays of graphenated carbon nanotubes. Journal of Materials Research, 2012, 27, 1046-1053.	1.2	67
29	A review of the electrical characteristics of metal contacts on diamond. Thin Solid Films, 1992, 212, 19-24.	0.8	65
30	Electrical Contacts to Beta Silicon Carbide Thin Films. Journal of the Electrochemical Society, 1988, 135, 359-362.	1.3	63
31	On-chip electron-impact ion source using carbon nanotube field emitters. Applied Physics Letters, 2007, 90, 124102.	1.5	61
32	Nothing is like a vacuum. Nature Nanotechnology, 2012, 7, 485-487.	15.6	55
33	Nucleation and selected area deposition of diamond by biased hot filament chemical vapor deposition. Journal of Materials Research, 1995, 10, 425-430.	1.2	54
34	Effects of boron doping on the surface morphology and structural imperfections of diamond films. Diamond and Related Materials, 1992, 1, 828-835.	1.8	53
35	Vapor deposition of diamond thin films on various substrates. Applied Physics Letters, 1990, 57, 1916-1918.	1.5	52
36	Correlation of the electrical properties of metal contacts on diamond films with the chemical nature of the metal-diamond interface. I. Gold contacts: A non-carbide-forming metal. Physical Review B, 1992, 45, 11968-11974.	1.1	51

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37	Graphenated carbon nanotubes for enhanced electrochemical double layer capacitor performance. Applied Physics Letters, 2011, 99, 183104.	1.5	49
38	Electron microscopic characterization of diamond films grown on Si by bias-controlled chemical vapor deposition. Journal of Materials Research, 1990, 5, 2367-2377.	1.2	48
39	Temperature dependence of the currentâ€voltage characteristics of metalâ€semiconductor fieldâ€effect transistors innâ€type Î²â€SiC grown via chemical vapor deposition. Applied Physics Letters, 1987, 51, 442-444.	1.5	47
40	Fabrication of diamond thin-film thermistors for high-temperature applications. Diamond and Related Materials, 1993, 2, 816-819.	1.8	47
41	Bias induced diamond nucleation studies on refractory metal substrates. Journal of Applied Physics, 1995, 77, 5119-5124.	1.1	46
42	Nucleation of oriented diamond particles on cobalt substrates. Journal of Applied Physics, 1995, 78, 1291-1296.	1.1	43
43	Growth of vertically aligned bamboo-like carbon nanotubes from ammonia/methane precursors using a platinum catalyst. Carbon, 2011, 49, 266-274.	5.4	43
44	Organizational designs for R&D. Academy of Management Perspectives, 2002, 16, 55-66.	4.3	42
45	Biasâ€enhanced nucleation of highly oriented diamond on titanium carbide (111) substrates. Applied Physics Letters, 1995, 66, 2810-2812.	1.5	39
46	Biasâ€controlled chemical vapor deposition of diamond thin films. Applied Physics Letters, 1990, 56, 620-622.	1.5	38
47	The analysis of defect structures and substrate/film interfaces of diamond thin films. Journal of Crystal Growth, 1990, 99, 1168-1176.	0.7	37
48	The Effect of Phosphoric Acid Concentration on Electrocatalysis. Journal of the Electrochemical Society, 1989, 136, 656-660.	1.3	36
49	Observation of surface modification and nucleation during deposition of diamond on silicon by scanning tunneling microscopy. Journal of Applied Physics, 1991, 69, 6400-6405.	1.1	35
50	Verification of the Oâ€"Siâ€"N complex in plasma-enhanced chemical vapor deposition silicon oxynitride films. Applied Physics Letters, 2005, 87, 261907.	1.5	35
51	A method to obtain a Ragone plot for evaluation of carbon nanotube supercapacitor electrodes. Journal of Materials Research, 2010, 25, 1500-1506.	1.2	35
52	Selected topics on the synthesis, properties and applications of multiwalled carbon nanotubes. Diamond and Related Materials, 2014, 42, 49-57.	1.8	34
53	Diamond nucleation and growth on reactive transition-metal substrates. Journal of Materials Research, 1995, 10, 1455-1460.	1.2	32
54	Carbon nanostructures: A morphological classification for charge density optimization. Diamond and Related Materials, 2012, 23, 130-134.	1.8	30

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55	Enhanced electron transfer kinetics through hybrid graphene-carbon nanotube films. Electrochemistry Communications, 2014, 48, 103-106.	2.3	29
56	Diamond nucleation on nickel substrates seeded with non-diamond carbon. Journal of Materials Research, 1994, 9, 1063-1066.	1.2	28
57	Analysis via transmission electron microscopy of the quality of diamond films deposited from the vapor phase. Diamond and Related Materials, 1991, 1, 25-32.	1.8	26
58	Alloying Effects of Cosputtered Gold-Platinum Thin Films on the Oxygen Reduction Reaction in Acidic Electrolyte. Journal of the Electrochemical Society, 2008, 155, B852.	1.3	25
59	Effect of surface hydrogen on metalâ€diamond interface properties. Journal of Applied Physics, 1993, 73, 835-842.	1.1	24
60	Integrated Flexible Conversion Circuit between a Flexible Photovoltaic and Supercapacitors for Powering Wearable Sensors. Journal of the Electrochemical Society, 2018, 165, B3122-B3129.	1.3	23
61	The effect of substrate material on bias-enhanced diamond nucleation. Diamond and Related Materials, 1994, 3, 1188-1195.	1.8	22
62	The effects of structure, composition, and chemical bonding on the mechanical properties of Si-aC:H thin films. Surface and Coatings Technology, 2002, 157, 197-206.	2.2	22
63	Effects of argon presputtering on the formation of aluminum contacts on polycrystalline diamond. Journal of Applied Physics, 1992, 72, 5912-5918.	1.1	21
64	Diamond deposition using a planar radio frequency inductively coupled plasma. Applied Physics Letters, 1995, 66, 3579-3581.	1.5	20
65	Influence of Deposition Parameters on the Composition and Structure of Reactively Sputtered Nanocomposite TaC/a-C:H Thin Films. Journal of Materials Research, 2005, 20, 2583-2596.	1.2	19
66	Intellectual property (IP) management: organizational processes and structures, and the role of IP donations. Journal of Technology Transfer, 2008, 33, 549-559.	2.5	19
67	Effect of porosity variation on the electrochemical behavior of vertically aligned multi-walled carbon nanotubes. Electrochemistry Communications, 2012, 19, 138-141.	2.3	19
68	Growth of diamond films using an enclosed combustion flame. Journal of Applied Physics, 1995, 78, 4144-4156.	1.1	18
69	Comparison of silicon, nickel, and nickel silicide (Ni3Si) as substrates for epitaxial diamond growth. Surface Science, 1995, 334, 179-194.	0.8	18
70	The formation of epitaxial hexagonal boron nitride on nickel substrates. Journal of Electronic Materials, 2005, 34, 1558-1564.	1.0	18
71	Measurement of reactive and condensable gas permeation using a mass spectrometer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 1128-1137.	0.9	18
72	Electrical conductivity and photoluminescence of diamond films grown by downstream microwave plasma CVD. Journal of Electronic Materials, 1992, 21, 629-634.	1.0	17

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73	Correlation of interface chemistry to electrical properties of metal contacts on diamond. Diamond and Related Materials, 1993, 2, 963-969.	1.8	17
74	High Knudsen number fluid flow at near-standard temperature and pressure conditions using precision nanochannels. Microfluidics and Nanofluidics, 2011, 10, 425-433.	1.0	17
75	Combustion growth of large diamond crystals. Journal of Crystal Growth, 1993, 129, 45-55.	0.7	16
76	Improved uniformity and selected area deposition of diamond by the oxy-acetylene flame method. Journal of Materials Research, 1992, 7, 2144-2150.	1.2	15
77	Perspectives on the Growth of High Edge Density Carbon Nanostructures: Transitions from Vertically Oriented Graphene Nanosheets to Graphenated Carbon Nanotubes. Journal of Physical Chemistry C, 2014, 118, 16126-16132.	1.5	15
78	The effect of gold on platinum oxidation in homogeneous Auâ€“Pt electrocatalysts. Applied Surface Science, 2010, 257, 1431-1436.	3.1	14
79	Investigation of the low angle grain boundaries in highly oriented diamond films via transmission electron microscopy. Journal of Materials Research, 1994, 9, 2487-2489.	1.2	13
80	Investigation of the process factor space on bias-enhanced nucleation of diamond on silicon. Thin Solid Films, 1995, 261, 4-11.	0.8	13
81	The effects of thermal annealing on the microstructural, optical and electrical properties of beta silicon carbide films implanted with boron or nitrogen. Journal of Electronic Materials, 1989, 18, 157-165.	1.0	12
82	The role of geometric considerations in the diamondâ€cubic boron nitride heteroepitaxial system. Journal of Applied Physics, 1991, 69, 2679-2681.	1.1	12
83	High voltage microelectromechanical systems platform for fully integrated, on-chip, vacuum electronic devices. Applied Physics Letters, 2008, 92, 224101.	1.5	12
84	Titanium carbide rectifying contacts on boron-doped polycrystalline diamond. Diamond and Related Materials, 1993, 2, 37-40.	1.8	11
85	The Electrochemical Stability and Calculated Free Energies of PtCr Alloys. Journal of the Electrochemical Society, 1988, 135, 1650-1658.	1.3	10
86	High sensitivity permeation measurement system for â€œultrabarrierâ€•thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1587-1593.	0.9	10
87	Microfabrication of diamond films: selective deposition and etching. Surface and Coatings Technology, 1991, 47, 465-473.	2.2	9
88	Effects of applied substrate bias during reactive sputter deposition of nanocomposite tantalum carbide/amorphous hydrocarbon thin films. Thin Solid Films, 2007, 515, 5403-5410.	0.8	9
89	Compressive Mass Analysis on Quadrupole Ion Trap Systems. Journal of the American Society for Mass Spectrometry, 2014, 25, 1295-1304.	1.2	9
90	Electron Microscopy of Defects in Epitaxical beta-SiC Thin Films Grown on Silicon and Carbon {0001} Faces of alpha-SiC Substrates. Journal of the American Ceramic Society, 1990, 73, 1283-1288.	1.9	8

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91	Effect of Substrate Orientation on Interfacial and Bulk Character of Chemically Vapor Deposited Monocrystalline Silicon Carbide Thin Films. Journal of the American Ceramic Society, 1990, 73, 1289-1296.	1.9	7
92	Nucleation and growth of diamond using a computer-controlled oxy-acetylene torch. Diamond and Related Materials, 1993, 2, 438-442.	1.8	7
93	Relationships between the thermal stability, friction, and wear properties of reactively sputtered Siâ€“aC:H thin films. Journal of Materials Research, 2002, 17, 2888-2896.	1.2	7
94	Radial distribution function analyses of amorphous carbon thin films containing various levels of silicon and hydrogen. Journal of Applied Physics, 2004, 96, 273-279.	1.1	7
95	Analysis of 3-panel and 4-panel microscale ionization sources. Journal of Applied Physics, 2010, 107, .	1.1	7
96	Carbon Nanotube Electron Ionization Source for Portable Mass Spectrometry. Analytical Chemistry, 2011, 83, 6527-6531.	3.2	7
97	Effect of native SiO2 layer on the nucleation of diamond using a combustion flame. Diamond and Related Materials, 1994, 3, 239-244.	1.8	6
98	Mechanical property development in reactively sputtered tantalum carbide/amorphous hydrocarbon thin films. Journal of Materials Research, 2006, 21, 1500-1511.	1.2	6
99	Diamond surface functionalization with biomimicry â€“ Amine surface tether and thiol moiety for electrochemical sensors. Applied Surface Science, 2014, 301, 293-299.	3.1	6
100	Geometric modeling of the diamond-Î²-SiC heteroepitaxial interface. Diamond and Related Materials, 1993, 2, 590-596.	1.8	5
101	Simulation and testing of a lateral, microfabricated electron-impact ion source. Applied Physics Letters, 2009, 94, 044109.	1.5	5
102	In-Vacuo Surface Analytical Study of Diamond Nucleation on Copper Vs. Silicon. Materials Research Society Symposia Proceedings, 1992, 270, 347.	0.1	4
103	A Novel Ion Source and Detector for a Miniature Mass Spectrometer. , 2007, , .		4
104	A Bipolar Vacuum Microelectronic Device. IEEE Transactions on Electron Devices, 2011, 58, 3189-3194.	1.6	4
105	Electrochemical Charge Storage Properties of Vertically Aligned Carbon Nanotube Films: Effects of Thermal Oxidation. Journal of Physical Chemistry C, 2012, 116, 19526-19534.	1.5	4
106	High voltage MEMS platform for fully integrated, on-chip, vacuum electronic devices. , 2008, , .		3
107	Electrochemical Charge Storage Properties of Vertically Aligned Carbon Nanotube Films: The Activation-Enhanced Length Effect. Journal of the Electrochemical Society, 2011, 158, K217.	1.3	3
108	Tem Analysis of the Observed Phases During the Growth of Oriented Diamond on Nickel Substrates. Materials Research Society Symposia Proceedings, 1996, 423, 457.	0.1	2

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109	Effect of film chemistry on refractive index of plasma-enhanced chemical vapor deposited silicon oxynitride films: A correlative study. Journal of Materials Research, 2008, 23, 1433-1442.	1.2	2
110	Early Nucleation of Diamond in a Combustion Flame. Materials Research Society Symposia Proceedings, 1992, 270, 323.	0.1	1
111	Diamond Growth in an Oxy-Acetylene Flame by an Alternating Gas Ratio Technique. Materials Research Society Symposia Proceedings, 1992, 270, 329.	0.1	1
112	Electrical Conductivity as a Function of Temperature of Diamond films Grown by Downstream Microwave Plasma Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 1992, 270, 413.	0.1	1
113	Preface to the Proceedings of the 6th European Conference on Diamond, Diamond-like and Related Materials (Diamond Films '95), Barcelona, Spain, September 10â€"15, 1995. Diamond and Related Materials, 1996, 5, xv.	1.8	1
114	Nucleation and Growth of Oriented Diamond Films on Nickel Substrates. Materials Research Society Symposia Proceedings, 1996, 423, 281.	0.1	1
115	High current density electron emission from an electrodeposited metal nanowire array. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 043204.	0.6	1
116	Properties and applications of vapor grown diamond. Carbon, 1990, 28, 756-757.	5.4	0
117	Determination of impurity dopant distributions in diamond films by SIMS. Carbon, 1990, 28, 801.	5.4	0
118	Pulsed Laser Deposition of CdTe, HgCdTe, and Î²-SiC Thin Films on Silicon. Materials Research Society Symposia Proceedings, 1992, 268, 235.	0.1	0
119	Preface to the Proceedings of the 7th European Conference on Diamond, Diamond-Like and Related Materials (Diamond Films '96), Tours, France, September 8â€"13, 1996. Diamond and Related Materials, 1997, 6, xi.	1.8	0
120	High Voltage Compatible Micromachined Vacuum Electronic Devices with Carbon Nanotube Cold Cathodes. , 0, , .		0
121	Development of a Micro Mass Spectrometer: Analysis of Particle Behavior in MEMS Ion Lens Systems. Microscopy and Microanalysis, 2009, 15, 242-243.	0.2	0
122	Modeling Operational Modes of a Bipolar Vacuum Microelectronic Device. IEEE Electron Device Letters, 2012, 33, 1498-1500.	2.2	0
123	Decoration of Graphenated Carbon Nanotube Electrodes with Platinum Nanoparticles via Atomic Layer Deposition. ECS Meeting Abstracts, 2021, MA2021-02, 527-527.	0.0	0
124	(Digital Presentation) Graphenated Carbon Nanotube Based MEMS Supercapacitors. ECS Meeting Abstracts, 2022, MA2022-01, 638-638.	0.0	0