Jan Isberg

List of Publications by Year
in descending order

Version: 2024-02-01

98 papers	3,881 citations	185998 28 h-index	123241 61 g-index
103 all docs	103 docs citations	103 times ranked	2924 citing authors

#	Article	IF	Citations
1	High Carrier Mobility in Single-Crystal Plasma-Deposited Diamond. Science, 2002, 297, 1670-1672.	6.0	1,081
2	Multiphysics Simulation of Wave Energy to Electric Energy Conversion by Permanent Magnet Linear Generator. IEEE Transactions on Energy Conversion, 2005, 20, 219-224.	3.7	198
3	Wave climate off the Swedish west coast. Renewable Energy, 2009, 34, 1600-1606.	4.3	149
4	Hydrodynamic modelling of a direct drive wave energy converter. International Journal of Engineering Science, 2005, 43, 1377-1387.	2.7	142
5	An electrical approach to wave energy conversion. Renewable Energy, 2006, 31, 1309-1319.	4.3	141
6	Review of control strategies for wave energy conversion systems and their validation: the wave-to-wire approach. Renewable and Sustainable Energy Reviews, 2018, 81, 366-379.	8.2	141
7	Generation, transport and detection of valley-polarized electrons in diamond. Nature Materials, 2013, 12, 760-764.	13.3	130
8	Classical and quantized tensionless strings. Nuclear Physics B, 1994, 411, 122-156.	0.9	115
9	High-voltage single-crystal diamond diodes. IEEE Transactions on Electron Devices, 2004, 51, 826-828.	1.6	114
10	Wave power absorption: Experiments in open sea and simulation. Journal of Applied Physics, 2007, 102, .	1.1	101
11	Temperature dependence of hole drift mobility in high-purity single-crystal CVD diamond. Physica Status Solidi A, 2005, 202, 2194-2198.	1.7	80
12	Single crystal diamond for electronic applications. Diamond and Related Materials, 2004, 13, 320-324.	1.8	76
13	Catch the wave to electricity. IEEE Power and Energy Magazine, 2009, 7, 50-54.	1.6	69
14	A resonant two body system for a point absorbing wave energy converter with direct-driven linear generator. Journal of Applied Physics, 2011, 110, .	1.1	60
15	Advances and Challenges in Wave Energy Park Optimizationâ€”A Review. Frontiers in Energy Research, 2020, 8, .	1.2	57
16	Anisotropic dry etching of boron doped single crystal CVD diamond. Carbon, 2005, 43, 1839-1842.	5.4	53
17	Electron and hole drift velocity in chemical vapor deposition diamond. Journal of Applied Physics, 2011, 109, .	1.1	48
18	Unlocking diamond's potential as an electronic material. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 251-265.	1.6	47

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19	Optimizing wave energy parks with over 1000 interacting point-absorbers using an approximate analytical method. International Journal of Marine Energy, 2015, 10, 113-126.	1.8	47
20	Charge collection distance measurements in single and polycrystalline CVD diamond. Diamond and Related Materials, 2004, 13, 872-875.	1.8	46
21	Performance of large arrays of point absorbing direct-driven wave energy converters. Journal of Applied Physics, 2013, 114, .	1.1	45
22	Numerical Parameterization of Chemical-Vapor-Deposited (CVD) Single-Crystal Diamond for Device Simulation and Analysis. IEEE Transactions on Electron Devices, 2008, 55, 2744-2756.	1.6	41
23	Space-time symmetries of quantized tensionless strings. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 293, 321-326.	1.5	38
24	Wave energy converter with enhanced amplitude response at frequencies coinciding with Swedish west coast sea states by use of a supplementary submerged body. Journal of Applied Physics, 2009, 106, 064512.	1.1	38
25	Nonlinear Passive Control of a Wave Energy Converter Subject to Constraints in Irregular Waves. Energies, 2015, 8, 6528-6542.	1.6	37
26	Effective masses and electronic structure of diamond including electron correlation effects in first principles calculations using the GW-approximation. AIP Advances, 2011, 1, .	0.6	35
27	Compensation in boronâ€doped CVD diamond. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2190-2194.	0.8	31
28	Methods of reducing power fluctuations in wave energy parks. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	31
29	Improving electric power generation of a standalone wave energy converter via optimal electric load control. Energy, 2020, 211, 118945.	4.5	30
30	Modelling of single-crystal diamond Schottky diodes for high-voltage applications. Diamond and Related Materials, 2006, 15, 317-323.	1.8	28
31	Theory and Experiment on an Elastically Moored Cylindrical Buoy. IEEE Journal of Oceanic Engineering, 2006, 31, 959-963.	2.1	28
32	Formation of secondary electron cascades in single-crystalline plasma-deposited diamond upon exposure to femtosecond x-ray pulses. Journal of Applied Physics, 2008, 103, .	1.1	28
33	Transport behavior of holes in boron delta-doped diamond structures. Journal of Applied Physics, 2013, 113, .	1.1	28
34	Constrained optimal control of a point absorber wave energy converter with linear generator. Journal of Renewable and Sustainable Energy, 2015, 7, .	0.8	28
35	Fast Modeling of Large Wave Energy Farms Using Interaction Distance Cut-Off. Energies, 2015, 8, 13741-13757.	1.6	27
36	Transient current electric field profiling of single crystal CVD diamond. Semiconductor Science and Technology, 2006, 21, 1193-1195.	1.0	25

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37	Injection dependent long carrier lifetimes in high quality CVD diamond. Diamond and Related Materials, 2001, 10, 574-579.	1.8	23
38	Photoionization measurement of deep defects in single-crystalline CVD diamond using the transient-current technique. Physical Review B, 2006, 73, .	1.1	22
39	Inversion in Metalâ€“Oxideâ€“Semiconductor Capacitors on Boron-Doped Diamond. IEEE Electron Device Letters, 2015, 36, 603-605.	2.2	22
40	Experimental and Numerical Collaborative Latching Control of Wave Energy Converter Arrays. Energies, 2018, 11, 3036.	1.6	22
41	Calculating the Coupling Factor in a Multilayer Coaxial Transformer With Air Core. IEEE Transactions on Magnetics, 2004, 40, 3244-3248.	1.2	18
42	Negative electron mobility in diamond. Applied Physics Letters, 2012, 100, 172103.	1.5	18
43	On smooth spinning particles and strings. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 231, 61-64.	1.5	16
44	Arrays of Point-Absorbing Wave Energy Converters in Short-Crested Irregular Waves. Energies, 2018, 11, 964.	1.6	16
45	A lateral time-of-flight system for charge transport studies. Diamond and Related Materials, 2009, 18, 1163-1166.	1.8	15
46	Hole transport in single crystal synthetic diamond at low temperatures. Applied Physics Letters, 2013, 102, 152113.	1.5	15
47	Statistical Analysis of Wave Climate Data Using Mixed Distributions and Extreme Wave Prediction. Energies, 2016, 9, 396.	1.6	15
48	Stability of polarized states for diamond valleytronics. Applied Physics Letters, 2014, 104, .	1.5	14
49	Single crystal diamond for infrared sensing applications. Applied Physics Letters, 2014, 105, .	1.5	13
50	Pulsed power transmission line transformer based on modern cable technology. IEEE Transactions on Plasma Science, 2003, 31, 1337-1343.	0.6	12
51	High-Field Electrical Transport in Single Crystal CVD Diamond Diodes. Advances in Science and Technology, 2006, 48, 73-76.	0.2	12
52	A Model Free Control Based on Machine Learning for Energy Converters in an Array. Big Data and Cognitive Computing, 2018, 2, 36.	2.9	12
53	Laser-triggered high-voltage plasma switching with diffractive optics. Applied Optics, 2001, 40, 2611.	2.1	11
54	Coordinated Control of Wave Energy Converters Subject to Motion Constraints. Energies, 2016, 9, 475.	1.6	11

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55	Performance of a Direct-Driven Wave Energy Point Absorber with High Inertia Rotatory Power Take-off. Energies, 2018, 11, 2332.	1.6	11
56	Comparison of Wave Energy Park Layouts by Experimental and Numerical Methods. Journal of Marine Science and Engineering, 2020, 8, 750.	1.2	11
57	Diffusion-related lifetime and quantum efficiency of excitons in diamond. Physical Review B, 2020, 102, .	1.1	11
58	A Valleytronic Diamond Transistor: Electrostatic Control of Valley Currents and Charge-State Manipulation of NV Centers. Nano Letters, 2021, 21, 868-874.	4.5	11
59	Low-temperature mobility-lifetime product in synthetic diamond. Applied Physics Letters, 2020, 117, .	1.5	11
60	Numerical and Experimental Analysis of Single Crystal Diamond Schottky Barrier Diodes. , 0, , .		9
61	Modelling a point absorbing wave energy converter by the equivalent electric circuit theory: A feasibility study. Journal of Applied Physics, 2015, 117, .	1.1	9
62	Carrier Scattering Mechanisms: Identification via the Scaling Properties of the Boltzmann Transport Equation. Advanced Theory and Simulations, 2021, 4, 2000103.	1.3	8
63	Characterization by Internal Photoemission Spectroscopy of Single-Crystal CVD Diamond Schottky Barrier Diodes. Journal of Electronic Materials, 2010, 39, 1203-1208.	1.0	7
64	A charge transport study in diamond, surface passivated by high-k dielectric oxides. Applied Physics Letters, 2014, 105, .	1.5	7
65	Low temperature conduction-band transport in diamond. Applied Physics Letters, 2016, 109, .	1.5	7
66	Capturing the experimental behaviour of a point-absorber WEC by simplified numerical models. Journal of Fluids and Structures, 2020, 99, 103143.	1.5	7
67	Silicon Oxide Passivation of Single-Crystalline CVD Diamond Evaluated by the Time-of-Flight Technique. ECS Solid State Letters, 2014, 3, P65-P68.	1.4	6
68	An Inductive 700-MW High-Voltage Pulse Generator. IEEE Transactions on Plasma Science, 2006, 34, 1838-1845.	0.6	5
69	Transport of energy in polychromatic fluid gravity waves. Journal of Engineering Mathematics, 2009, 64, 15-23.	0.6	5
70	Transport coefficients in diamond from ab-initio calculations. Applied Physics Letters, 2013, 102, 092106.	1.5	5
71	Performance of arrays of direct-driven wave energy converters under optimal power take-off damping. AIP Advances, 2016, 6, 085313.	0.6	5
72	Diamond Electronic Devices. , 2010, , .		4

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73	On the transition between space-charge-free and space-charge-limited conduction in diamond. Solid State Sciences, 2011, 13, 1065-1067.	1.5	4
74	Graphene FET on Diamond for High-Frequency Electronics. IEEE Electron Device Letters, 2022, 43, 300-303.	2.2	4
75	Depth variation of energy transport in fluid gravity waves. Journal of Renewable and Sustainable Energy, 2010, 2, 023104.	0.8	3
76	Control of rapid phase oscillations in the modelling of large wave energy arrays. International Journal of Marine Energy, 2015, 11, 1-8.	1.8	3
77	Magnetotransport study of valley-polarized electrons in synthetic diamond. Physical Review B, 2016, 94, .	1.1	3
78	Rigid strings from field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 261, 379-384.	1.5	2
79	Atomic force and scanning tunneling microscopy study of current-voltage properties of TiB2 microcontacts. Journal of Applied Physics, 1997, 82, 1255-1261.	1.1	2
80	Transport Properties of Electrons and Holes in Diamond. , 2009, , 29-48.		2
81	Investigation of transferred-electron oscillations in diamond. Applied Physics Letters, 2016, 108, 212104.	1.5	2
82	Observation of transferred-electron oscillations in diamond. Applied Physics Letters, 2019, 115, 192101.	1.5	2
83	Investigation of Photoexcitation Energy Impact on Electron Mobility in Single Crystalline CdTe. Materials, 2021, 14, 4202.	1.3	2
84	High-voltage transmission line transformer based on modern cable technology. , 0, , .		1
85	Overstressing of High-Voltage Capacitors. IEEE Transactions on Plasma Science, 2004, 32, 1337-1343.	0.6	1
86	High-Power Switching Devices. , 2009, , 275-288.		1
87	Time-of-Flight Characterization of Single-crystalline CVD Diamond with Different Surface Passivation Layers. Materials Research Society Symposia Proceedings, 2011, 1282, 47.	0.1	1
88	Total instantaneous energy transport in polychromatic fluid gravity waves at finite depth. Journal of Renewable and Sustainable Energy, 2012, 4, 033108.	0.8	1
89	Charge Transport Phenomena Unique to Diamond. Materials Research Society Symposia Proceedings, 2014, 1591, 1.	0.1	1
90	(Invited) Surface Passivation of High-k Dielectric Materials on Diamond Thin Films. ECS Transactions, 2015, 69, 61-65.	0.3	1

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91	Semi-isotropic surface etching of diamond using a Faraday cage. Diamond and Related Materials, 2015, 58, 185-189.	1.8	1
92	Study of the foundation design for a linear generator wave energy converter using stochastic methods. Journal of Renewable and Sustainable Energy, 2015, 7, 063112.	0.8	1
93	Intrinsic Mobility of Low-Density Electrons in Photoexcited Diamond. Physical Review Applied, 2022, 17, .	1.5	1
94	Single crystal diamond for electronic applications. Diamond and Related Materials, 2003, 13, 320-320.	1.8	0
95	A Comparison of Transient Boron Diffusion in Silicon, Silicon Carbide and Diamond. Materials Science Forum, 2008, 600-603, 453-456.	0.3	0
96	XUVâ€induced transient phase gratings for probing ultraâ€fast carrier generation and recombination processes in wideâ€bandgap semiconductors. Annalen Der Physik, 2013, 525, 59-65.	0.9	0
97	Properties of the Energy Transport for Plane-Parallel Polychromatic Surface Gravity Waves in Waters of Arbitrary Depth. IEEE Journal of Oceanic Engineering, 2015, 40, 408-416.	2.1	0
98	Manifestly space-time conformally invariant null strings. , 1995, , 104-104.		0