Mark J Hagmann

List of Publications by Year
in descending order

47 papers	575 citations	516710 16 h-index	642732 23 g-index
47 all docs	47 docs citations	47 times ranked	189 citing authors

#	Article	IF	Citations
1	Design and simulations of a prototype nanocircuit to transmit microwave and terahertz harmonics generated with a mode-locked laser. AIP Advances, 2022, 12, 015014.	1.3	0
2	Periodically pulsed laser-assisted tunneling may generate terahertz radiation. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 03D109.	1.2	3
3	Microwave Frequency Comb from a Semiconductor in a Scanning Tunneling Microscope. Microscopy and Microanalysis, 2017, 23, 443-448.	0.4	2
4	Resolution in Carrier Profiling Semiconductors by Scanning Spreading Resistance Microscopy and Scanning Frequency Comb Microscopy. Applied Microscopy, 2017, 47, 95-100.	1.4	2
5	Possible applications of scanning frequency comb microscopy for carrier profiling in semiconductors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 02B109.	1.2	9
6	Linewidth of the harmonics in a microwave frequency comb generated by focusing a mode-locked ultrafast laser on a tunneling junction. Journal of Applied Physics, 2013, 114, .	2.5	23
7	Observation of 200th harmonic with fractional linewidth of 10â˜'10 in a microwave frequency comb generated in a tunneling junction. Applied Physics Letters, 2012, 101, .	3.3	22
8	Analysis and simulation of generating terahertz surface waves on a tapered field emission tip. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	1.2	2
9	Field emission in air and space-charge-limited currents from iridium-iridium oxide tips with gaps below 100 nm. Journal of Applied Physics, 2011, 109, 094510.	2.5	15
10	Microwave frequency-comb generation in a tunneling junction by intermode mixing of ultrafast laser pulses. Applied Physics Letters, 2011, 99, .	3.3	20
11	5.2: Analysis and simulation of generating terahertz surface waves on a tapered field emission tip. , 2010, , .		0
12	Simulations of high-power pulsed terahertz sources using laser-assisted field emission. , 2007, , .		0
13	SIMULATIONS OF THE GENERATION OF TERAHERTZ RADIATION BY PHOTOMIXING IN LASER-ASSISTED FIELD EMISSION TO OPTIMIZE THE SIGNAL-TO-NOISE RATIO. Fluctuation and Noise Letters, 2005, 05, L515-L528.	1.5	0
14	Pulsed and widely tunable terahertz sources for security: imaging and spectroscopy. , 2004, 5411, 51.		1
15	Optimization of the signal-to-noise ratio for terahertz radiation generated by photomixing in laser-assisted field emission. , 2004, , .		0
16	Wide-band-tunable sources using photomixing in laser-assisted field emission. , 2004, , .		1
17	Ultrafast optoelectronic devices using laser-assisted field emission. , 2004, , .		2
18	Method for simulating the signal and noise for terahertz radiation generated by photomixing in laser-assisted field emission. , 2004, , .		0

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19	Design of field emitter devices for microwave and terahertz applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 353, 41-46.	5.6	4
20	Wide-band-tunable photomixers using resonant laser-assisted field emission. Applied Physics Letters, 2003, 83, 1-2.	3.3	63
21	Simulations of photon-assisted tunneling using the Fokkerâ€“Planck equation to model the scattering of electrons within the emitting metal tip. Ultramicroscopy, 2001, 89, 23-38.	1.9	1
22	Comparison of three different methods for coupling of microwave and terahertz signals generated by resonant laser-assisted field emission. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 68.	1.6	27
23	Quantum mechanical theory of electronic photon-stimulated field emission by transfer matrices and Green's functions. International Journal of Quantum Chemistry, 2000, 80, 816-823.	2.0	0
24	Simulations of photon-assisted field emission. Ultramicroscopy, 1999, 79, 115-124.	1.9	20
25	Use of Goubau line to couple microwave signals generated by resonant laser-assisted field emission. Ultramicroscopy, 1999, 79, 175-179.	1.9	9
26	Measurements of modulation of the total emitted current in laser-assisted field emission. Ultramicroscopy, 1999, 79, 181-188.	1.9	16
27	Single-photon and multiphoton processes causing resonance in the transmission of electrons by a single potential barrier in a radiation field. International Journal of Quantum Chemistry, 1999, 75, 417-427.	2.0	17
28	Stable and efficient numerical method for solving the Schrï¿½dinger equation to determine the response of tunneling electrons to a laser pulse. International Journal of Quantum Chemistry, 1998, 70, 703-710.	2.0	29
29	Simulations of the generation of broadband signals from DC to 100THz by photomixing in laser-assisted field emission. Ultramicroscopy, 1998, 73, 89-97.	1.9	25
30	Modulation of the current in a field emitter caused by a continuous wave or pulsed laser: Simulations and experimental results. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 405.	1.6	20
31	Intensification of optical electric fields caused by the interaction with a metal tip in photofield emission and laser-assisted scanning tunneling microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 597.	1.6	21
32	Simulations of laser-assisted field emission within the local density approximation of Kohn-Sham density-functional theory. International Journal of Quantum Chemistry, 1997, 65, 857-865.	2.0	21
33	Efficient numerical method for finding the initial response of quantum processes to changes in the potential. International Journal of Quantum Chemistry, 1996, 60, 1231-1239.	2.0	7
34	Microwave tunneling current from the resonant interaction of an amplitude modulated laser with a scanning tunneling microscope. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 838.	1.6	21
35	Efficient numerical methods for solving the Schrï¿½dinger equation with a potential varying sinusoidally with time. International Journal of Quantum Chemistry, 1995, 56, 289-295.	2.0	9
36	Simulations of the interaction of tunneling electrons with optical fields in laser-illuminated field emission. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 1348.	1.6	14

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37	Resonance due to the interaction of tunneling particles with modulation quanta. Applied Physics Letters, 1995, 66, 789-791.	3.3	25
38	Mechanism for resonance in the interaction of tunneling particles with modulation quanta. Journal of Applied Physics, 1995, 78, 25-29.	2.5	51
39	Reduced effects of laser illumination on field emission due to the finite duration of quantum tunneling. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 3191.	1.6	7
40	Effects of the finite duration of quantum tunneling in laser-assisted scanning tunneling microscopy. International Journal of Quantum Chemistry, 1994, 52, 271-282.	2.0	10
41	Limitations on the use of Bohm's causal interpretation of quantum mechanics for the computation of tunneling times. Solid State Communications, 1993, 86, 305-307.	1.9	8
42	Experiments pursuant to determining the barrier traversal time for quantum tunneling. International Journal of Quantum Chemistry, 1993, 48, 807-814.	2.0	2
43	Distribution of times for barrier traversal caused by energy fluctuations. Journal of Applied Physics, 1993, 74, 7302-7305.	2.5	4
44	Distribution of barrier traversal times in numerical simulations. Journal of Applied Physics, 1993, 74, 1469-1472.	2.5	3
45	Transit time for quantum tunneling. Solid State Communications, 1992, 82, 867-870.	1.9	17
46	Human leg heating using a mini-annular phased array. Medical Physics, 1986, 13, 449-456.	3.0	9
47	Coupling Efficiency of Helical Coil Hyperthermia Applications. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 539-540.	4.2	13