

Stuart Brand

List of Publications by Year in descending order

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120
papers

4,326
citations

159358

30
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110170

64
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121
all docs

121
docs citations

121
times ranked

3016
citing authors

#	ARTICLE	IF	CITATIONS
1	A study of a phase formalism for calculating the cumulative density of states of one-dimensional photonic crystals. Journal of Modern Optics, 2017, 64, 1501-1509.	0.6	5
2	Some theory of a dual-polarization interferometer for sensor applications. Journal Physics D: Applied Physics, 2015, 48, 125101.	1.3	5
3	Tamm plasmon polaritons in multilayered cylindrical structures. Physical Review B, 2012, 86, .	1.1	13
4	Propagation and Localization of Light in Two-Dimensional Photonic Crystals. Series in Optics and Optoelectronics, 2012, , 23-38.	0.0	0
5	Spectral filtering of THz radiation using negative refraction in a photonic crystal. , 2011, , .		0
6	An "electromagnetic wiggler" originating from refraction of waves at the side edge of a Bragg reflector. Journal of Modern Optics, 2011, 58, 686-693.	0.6	0
7	Wavelength-dependent frustrated internal reflection via photonic interface states. Applied Physics Letters, 2011, 99, .	1.5	2
8	Negative refraction and the spectral filtering of terahertz radiation by a photonic crystal prism. Optics Letters, 2011, 36, 1641.	1.7	9
9	Hybrid states of Tamm plasmons and exciton-polaritons. Superlattices and Microstructures, 2011, 49, 229-232.	1.4	9
10	Polarization beats in a pillar microcavity. Superlattices and Microstructures, 2010, 47, 24-28.	1.4	1
11	Tailor-made surface plasmon polaritons above the bulk plasma frequency: a design strategy for indium tin oxide. Journal Physics D: Applied Physics, 2010, 43, 145104.	1.3	4
12	Evanescently coupled interface states in the gap between two Bragg reflectors. Optics Letters, 2010, 35, 2085.	1.7	9
13	Whispering-gallery exciton polaritons in submicron spheres. Physical Review B, 2009, 79, .	1.1	18
14	Hybrid states of Tamm plasmons and exciton polaritons. Applied Physics Letters, 2009, 95, .	1.5	97
15	Optical Tamm states above the bulk plasma frequency at a Bragg stack/metal interface. Physical Review B, 2009, 79, .	1.1	69
16	Bragg reflector enhanced attenuated total reflectance. Journal of Applied Physics, 2009, 106, 113109.	1.1	13
17	Density of states in 1D disordered photonic crystals: Analytical solution. Solid State Communications, 2008, 146, 157-160.	0.9	9
18	Tamm plasmon polaritons: Slow and spatially compact light. Applied Physics Letters, 2008, 92, .	1.5	344

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19	Negative refracting materials at THz frequencies. , 2008, , .		2
20	Terahertz filter based on refractive properties of metallic photonic crystal. Optics Express, 2008, 16, 7330.	1.7	27
21	Negative refraction can make non-diffracting beams. Optics Express, 2008, 16, 14582.	1.7	4
22	Non-Local Density Functional Description of Poly- Para -Phenylene Vinylene. Chinese Physics Letters, 2007, 24, 807-810.	1.3	6
23	Complex photonic band structure and effective plasma frequency of a two-dimensional array of metal rods. Physical Review B, 2007, 75, .	1.1	38
24	Whispering gallery polaritons in cylindrical cavities. Physical Review B, 2007, 75, .	1.1	41
25	Passband filters for terahertz radiation based on dual metallic photonic structures. Applied Physics Letters, 2007, 91, 161115.	1.5	36
26	Micromachining for Terahertz Artificial Materials. Materials Research Society Symposia Proceedings, 2007, 1016, 1.	0.1	2
27	Stability of Photonic Band Gap in the Presence of Disorder. AIP Conference Proceedings, 2007, , .	0.3	0
28	Artificial plasmonic materials for THz applications. , 2007, , .		1
29	Terahertz frequency bandpass filters. Journal of Applied Physics, 2007, 102, 023102.	1.1	49
30	Effect of longitudinal excitations on surface plasmons. Solid State Communications, 2007, 144, 413-417.	0.9	10
31	Interface photonic states at the boundary between a metal and a dielectric Bragg mirror. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 522-525.	0.8	14
32	Density of states of a one-dimensional disordered photonic crystal. Physics of the Solid State, 2007, 49, 1999-2003.	0.2	2
33	Tamm plasmon-polaritons: Possible electromagnetic states at the interface of a metal and a dielectric Bragg mirror. Physical Review B, 2007, 76, .	1.1	692
34	Lattice dynamics of polyaniline and poly(p-pyridyl vinylene): First-principles determination. Physical Review B, 2006, 74, .	1.1	14
35	Propagation of electromagnetic waves through a system of randomly placed cylinders: the partial scattering wave resonance. Journal of Modern Optics, 2006, 53, 2089-2097.	0.6	2
36	Molecular dynamics calculations of the thermal expansion properties and melting points of Si and Ge. Journal of Physics Condensed Matter, 2006, 18, 3489-3498.	0.7	1

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37	Screened-exchange stress tensor in density functional theory. Physical Review B, 2006, 73, .	1.1	15
38	Statistics of the eigenmodes and optical properties of one-dimensional disordered photonic crystals. Physical Review E, 2006, 73, 056616.	0.8	28
39	Enhanced THz transmission apertures through sub-wavelength annular apertures. , 2006, , .		0
40	Stability of the photonic band gap in the presence of disorder. Physical Review B, 2006, 73, .	1.1	34
41	Properties of two-dimensional photonic crystals with octagonal quasicrystalline unit cells. Journal of Modern Optics, 2006, 53, 407-416.	0.6	18
42	THz frequency studies of metallic structures. , 2006, , .		1
43	Waveguide polaritons: interaction of a quantum well exciton with an electromagnetic mode of a planar waveguide. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 787-790.	0.8	3
44	First-Principles Calculations of $2\sqrt{3}\times 2$ reconstructions of GaN Surfaces. AIP Conference Proceedings, 2005, , .	0.3	1
45	The Interaction of Quantum Well Excitons with Evanescent EM Waves and the Spectroscopy of Waveguide Polaritons. AIP Conference Proceedings, 2005, , .	0.3	0
46	Theoretical adlayer surface morphology of wurtzite $2\sqrt{3}\times 2$ reconstructions of the GaN(0001) surface. Journal of Physics Condensed Matter, 2005, 17, 17-26.	0.7	10
47	Ab initio dynamics study of poly-para-phenylene vinylene. Journal of Chemical Physics, 2005, 123, 024904.	1.2	15
48	Disorder induced modification of reflection and transmission spectra of a two-dimensional photonic crystal with an incomplete band-gap. Journal of Physics Condensed Matter, 2005, 17, 4049-4055.	0.7	7
49	First-principles calculations of $2\sqrt{3}\times 2$ reconstructions of GaN(0001) surfaces involving N, Al, Ga, In, and As atoms. Physical Review B, 2005, 72, .	1.1	28
50	Screened Exchange Calculations of Semiconductor Band Structures. AIP Conference Proceedings, 2005, , .	0.3	1
51	First-principles studies of the structural and electronic properties of poly-para-phenylene vinylene. Journal of Physics Condensed Matter, 2004, 16, 8609-8620.	0.7	33
52	Directionality of light transmission and reflection in two-dimensional Penrose tiled photonic quasicrystals. Journal of Physics Condensed Matter, 2004, 16, 1269-1278.	0.7	7
53	The metrics of surface adsorbed small molecules on the Young's fringe dual-slab waveguide interferometer. Journal Physics D: Applied Physics, 2004, 37, 74-80.	1.3	112
54	Real time, high resolution studies of protein adsorption and structure at the solid-liquid interface using dual polarization interferometry. Journal of Physics Condensed Matter, 2004, 16, S2493-S2496.	0.7	47

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55	Interaction of quantum well excitons with evanescent plane electromagnetic waves. Journal of Physics Condensed Matter, 2004, 16, 3401-3409.	0.7	2
56	Ab initio studies of strained wurtzite GaN surfaces. Journal of Physics Condensed Matter, 2004, 16, 531-542.	0.7	7
57	Stimulated emission due to light localization in the bandgap of disordered opals. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1522-1530.	0.8	3
58	Optimization of an optical filter with a square-shaped passband based on coupled microcavities. Journal of Modern Optics, 2004, 51, 437-446.	0.6	6
59	Optimization of an optical filter with a square-shaped passband based on coupled microcavities. Journal of Modern Optics, 2004, 51, 437-446.	0.6	1
60	A new quantitative optical biosensor for protein characterisation. Biosensors and Bioelectronics, 2003, 19, 383-390.	5.3	205
61	Appearance of photonic minibands in disordered photonic crystals. Journal of Physics Condensed Matter, 2003, 15, 785-790.	0.7	7
62	Electromagnetic theory of the coupling of zero-dimensional exciton and photon states: A quantum dot in a spherical microcavity. Physical Review B, 2001, 64, .	1.1	12
63	Optical eigenmodes of a multilayered spherical microcavity. Journal of Modern Optics, 2001, 48, 1503-1516.	0.6	20
64	Optical Eigenmodes of a Spherical Microcavity. Physica Status Solidi A, 2001, 183, 183-187.	1.7	5
65	Bandgap structure of optical Fibonacci lattices after light diffraction. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2001, 91, 109-118.	0.2	38
66	Diffraction and transmission of light in low-refractive index Penrose-tiled photonic quasicrystals. Journal of Physics Condensed Matter, 2001, 13, 10459-10470.	0.7	111
67	Light-exciton coupling in semiconductor microcavities of cylindrical and spherical symmetry. Springer Proceedings in Physics, 2001, , 699-700.	0.1	0
68	Two-dimensional penrose-tiled photonic quasicrystals: Diffraction of light and fractal density of modes. Journal of Modern Optics, 2000, 47, 1771-1778.	0.6	49
69	Exciton polaritons in a cylindrical microcavity with an embedded quantum wire. Physical Review B, 2000, 61, 13791-13797.	1.1	16
70	Two-dimensional Penrose-tiled photonic quasicrystals: from diffraction pattern to band structure. Nanotechnology, 2000, 11, 274-280.	1.3	71
71	Direct calculation of ϵ parameters for wurtzite AlN, GaN, and InN. Physical Review B, 2000, 61, 12933-12938.	1.1	69
72	Impact ionization rate calculations in wide band gap semiconductors. Journal of Applied Physics, 1999, 85, 8178-8185.	1.1	28

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73	Band-gap and k.p. parameters for GaAlN and GaInN alloys. Journal of Applied Physics, 1999, 86, 3768-3772.	1.1	47
74	Characteristics of impact ionization rates in direct and indirect gap semiconductors. Journal of Applied Physics, 1999, 85, 8186-8192.	1.1	45
75	Determination of Band Structure Parameters in Nitride Alloys for Use in Quantum Well Calculations. Physica Status Solidi (B): Basic Research, 1999, 216, 351-354.	0.7	0
76	Dipole matrix elements and the nature of charge oscillation under coherent interband excitation in quantum wells. Physical Review B, 1999, 60, 13306-13309.	1.1	2
77	Electronic structure calculations on nitride semiconductors. Semiconductor Science and Technology, 1999, 14, 23-31.	1.0	153
78	Electronic structure calculations on nitride semiconductors. Semiconductor Science and Technology, 1999, 14, 1175-1175.	1.0	1
79	Experimental technique to determine the band structure of two-dimensional photonic lattices. IEE Proceedings: Optoelectronics, 1998, 145, 398-402.	0.8	31
80	Structure and electronic properties of FeSi ₂ . Physical Review B, 1998, 58, 10389-10393.	1.1	110
81	Two-dimensional photonic-bandgap structures operating at near-infrared wavelengths. Nature, 1996, 383, 699-702.	13.7	723
82	Spatio-temporal impact ionisation transients: A Lucky drift model study in GaAs. Solid-State Electronics, 1995, 38, 287-296.	0.8	9
83	Avalanche multiplication properties of GaAs calculated from spatially transient ionisation coefficients. Solid-State Electronics, 1995, 38, 2095-2100.	0.8	3
84	Spatial impact ionization transients in GaAs: their origin and characteristics. Semiconductor Science and Technology, 1994, 9, 1171-1175.	1.0	4
85	The use of realistic band structure in impact ionization calculations for wide bandgap semiconductors: thresholds, anti-thresholds and rates in GaAs and AlGaAs. Semiconductor Science and Technology, 1993, 8, 1944-1956.	1.0	6
86	The use of realistic band structure in impact ionization calculations for wide bandgap semiconductors: thresholds and anti-thresholds in indium phosphide. Semiconductor Science and Technology, 1993, 8, 1546-1556.	1.0	9
87	THE USE OF REALISTIC BANDSTRUCTURE IN IMPACT IONISATION CALCULATIONS FOR WIDE BANDGAP SEMICONDUCTORS: APPLICATION TO INP AND GaAs. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1993, 12, 457-473.	0.5	0
88	Simulation of electron transport in a (GaAs) ₁₂ /(AlAs) ₁₂ superlattice. Semiconductor Science and Technology, 1991, 6, 784-789.	1.0	1
89	Calculations of electronic states and optical matrix elements of freestanding (100) (CdTe) _n /(ZnTe) _n superlattices. Superlattices and Microstructures, 1991, 10, 13-18.	1.4	1
90	Pseudopotential calculations of energy states and momentum matrix elements for strained layer structures. Superlattices and Microstructures, 1991, 10, 323-326.	1.4	0

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91	Optical transitions in (Si) ₄ (Ge) ₄ superlattices. Superlattices and Microstructures, 1989, 5, 185-188.	1.4	5
92	Calculations of electronic states in the valence band of (100) GaAs/AlGaAs superlattices. Semiconductor Science and Technology, 1987, 2, 123-126.	1.0	8
93	Complex band structure calculations of the electric field dependence of the transmission of holes through a (100) GaAs/AlGaAs/GaAs barrier structure. Superlattices and Microstructures, 1987, 3, 697-700.	1.4	3
94	Calculations of bound states in the valence band of AlAs/GaAs/AlAs and AlGaAs/GaAs/AlGaAs quantum wells. Semiconductor Science and Technology, 1987, 2, 607-614.	1.0	30
95	CALCULATION OF BOUND STATES IN A STRAINED Ge _{0.25} Si _{0.75} /Si/Ge _{0.25} Si _{0.75} QUANTUM WELL. Journal De Physique Colloque, 1987, 48, C5-565-C5-568.	0.2	0
96	Intervalence band absorption in semiconductor laser materials. Semiconductor Science and Technology, 1986, 1, 116-120.	1.0	28
97	New aspects of the electronic structure of the GaSb-InAs (001) superlattice. Superlattices and Microstructures, 1985, 1, 385-388.	1.4	4
98	Pseudopotential and K.P Calculations of Overlap integrals for Auger processes in Direct gap Semiconductors. , 1985, , 1013-1016.		1
99	Calculations of the commonly neglected terms in the matrix element for Auger and impact ionisation processes in semiconductors. Journal of Physics C: Solid State Physics, 1984, 17, L571-L574.	1.5	14
100	Calculations of overlap integrals for Auger processes involving direct band gap semiconductors. Journal of Physics C: Solid State Physics, 1984, 17, L201-L206.	1.5	27
101	Overlap integrals for Auger recombination in direct-bandgap semiconductors: calculations for conduction and heavy-hole bands in GaAs and InP. Journal of Physics C: Solid State Physics, 1984, 17, 6385-6401.	1.5	45
102	The electronic properties of dangling bonds in silicon. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1983, 116, 79-84.	0.9	2
103	Electronic structure of the divacancy in silicon. Journal of Physics C: Solid State Physics, 1983, 16, L337-L343.	1.5	13
104	Self-consistent calculations of electron and hole sub-band energies for an n-p superlattice in GaAs. Journal of Physics C: Solid State Physics, 1983, 16, 6111-6120.	1.5	6
105	Electronic properties and stability of first-row impurities in semiconductors. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1983, 47, 199-210.	0.6	5
106	Excited states of neutral defects in semiconductors. Journal of Physics C: Solid State Physics, 1982, 15, L743-L747.	1.5	5
107	On the binding mechanism concerning medium-deep localised levels in III-V semiconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 87, 110-112.	0.9	0
108	Defect states dominated by localised potentials in semiconductors. Journal of Physics C: Solid State Physics, 1981, 14, 1243-1253.	1.5	8

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109	Electronic states at line defects in silicon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1980, 42, 577-582.	0.6	3
110	Optical cross sections associated with deep levels in semiconductors. I. Journal of Physics C: Solid State Physics, 1980, 13, 6167-6180.	1.5	24
111	Binding to deep impurities in semiconductors. Journal of Physics C: Solid State Physics, 1980, 13, L333-L337.	1.5	20
112	Electronic states associated with the substitutional nitrogen impurity in GaP _x As _{1-x} . Journal of Physics C: Solid State Physics, 1979, 12, 525-539.	1.5	39
113	The binding of electrons by nitrogen pairs in GaP. Journal of Physics C: Solid State Physics, 1979, 12, 2789-2796.	1.5	13
114	Self-consistent pseudopotential calculation of electronic states associated with a reconstructed silicon vacancy. Physical Review B, 1979, 19, 3137-3151.	1.1	44
115	Self-consistent pseudopotential calculations of the electronic structure of a hydrogen interstitial in crystalline silicon. Solid State Communications, 1979, 31, 43-45.	0.9	31
116	Optimisation studies of localised defect calculations in semiconductors. Journal of Physics C: Solid State Physics, 1978, 11, 4963-4973.	1.5	12
117	Pseudopotential calculations of the effect of displacement upon the impurity levels introduced by deep donor oxygen in GaAs, GaP, Si and nitrogen in diamond. Solid State Communications, 1977, 21, 875-877.	0.9	18
118	Localized defects in III-V semiconductors. Physical Review B, 1976, 14, 4494-4505.	1.1	130
119	Two-dimensional penrose-tiled photonic quasicrystals: Diffraction of light and fractal density of modes. , 0, .		8
120	Optical eigenmodes of a multilayered spherical microcavity. , 0, .		1