

Ian Galbraith

List of Publications by Year in descending order

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91
papers

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236612

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docs citations

93
times ranked

1548
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient THz four-wave mixing in doped silicon. <i>Light: Science and Applications</i> , 2021, 10, 71.	7.7	8
2	Long-lived nonlinear oscillatory states in interacting relativistic Bose-Einstein condensates. <i>Physical Review A</i> , 2020, 102, .	1.0	2
3	Properties of Conjugated Materials from Quantum Chemistry Coupled to Molecular Dynamics Generated Ensembles. <i>Journal of Physical Chemistry A</i> , 2020, 124, 10667-10677.	1.1	1
4	Coulomb effects in the absorbance spectra of two-dimensional Dirac materials. <i>Physical Review B</i> , 2018, 98, .	1.1	7
5	Exceptional points and dynamics of an asymmetric non-Hermitian two-level system. <i>Physical Review A</i> , 2018, 98, .	1.0	12
6	Phase control of photon-echo dynamics with overlapping pulse pairs. <i>Physical Review A</i> , 2017, 95, .	1.0	0
7	General Force-Field Parametrization Scheme for Molecular Dynamics Simulations of Conjugated Materials in Solution. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 3813-3824.	2.3	35
8	Self-trapping and excited state absorption in fluorene homo-polymer and copolymers with benzothiadiazole and tri-phenylamine. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 21937-21948.	1.3	13
9	Lateral excitonic switching in vertically stacked quantum dots. <i>Journal of Applied Physics</i> , 2016, 119, 224303.	1.1	2
10	Subpicosecond Exciton Dynamics in Polyfluorene Films from Experiment and Microscopic Theory. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9734-9744.	1.5	17
11	Organic photovoltaics and energy: general discussion. <i>Faraday Discussions</i> , 2014, 174, 341-355.	1.6	2
12	Excited-State Absorption of Conjugated Polymers in the Near-Infrared and Visible: A Computational Study of Oligofluorenes. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6889-6895.	1.5	19
13	Tuning biexciton binding and antibinding in core/shell quantum dots. <i>Physical Review B</i> , 2012, 86, .	1.1	14
14	Quantitative description of interactions between linear organic chromophores. <i>Journal of Chemical Physics</i> , 2012, 137, 224102.	1.2	12
15	Dynamics of fluorescence depolarisation in star-shaped oligofluorene-truxene molecules. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9176.	1.3	33
16	Optical Excitations in Star-Shaped Fluorene Molecules. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2913-2919.	1.1	40
17	Lateral spatial switching of excitons using vertical electric fields in semiconductor quantum rings. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	5
18	Dynamics of photoexcitation and stimulated optical emission in conjugated polymers: A multiscale quantum-chemistry and Maxwell-Bloch-equations approach. <i>Physical Review B</i> , 2010, 81, .	1.1	13

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19	Theory of Stimulated Optical Emission Dynamics in Conjugated Polymers. , 2010, , .		0
20	Effect of exciton self-trapping and molecular conformation on photophysical properties of oligofluorenes. Journal of Chemical Physics, 2009, 131, 154906.	1.2	33
21	Photon emission induced by elastic exciton-carrier scattering in semiconductor quantum wells. European Physical Journal B, 2008, 65, 195-206.	0.6	8
22	The Radiative Lifetime of Charged Excitons in a Single Self-Assembled Quantum Dot. AIP Conference Proceedings, 2007, , .	0.3	0
23	Enhancement and reduction of line broadening due to Auger scattering in modulation-doped InGaAs [*] GaAs quantum dot devices. Applied Physics Letters, 2007, 91, 161113.	1.5	9
24	Linewidth Enhancement Factor of Quantum-Dot Optical Amplifiers. IEEE Journal of Quantum Electronics, 2006, 42, 986-993.	1.0	40
25	Rapid hot-electron capture in self-assembled quantum dots via phonon processes. Applied Physics Letters, 2006, 89, 153119.	1.5	7
26	Rabi oscillations for subpicosecond pulses in quantum-well optical amplifiers: interplay of carrier heating, nonlinear, and spectral effects. IEEE Journal of Quantum Electronics, 2005, 41, 1083-1091.	1.0	4
27	Wavelet transforms for optical pulse analysis. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 2890.	0.8	3
28	Quantum Dot Versus Quantum Well Semiconductor Optical Amplifiers for Subpicosecond Pulse Amplification. Optical and Quantum Electronics, 2004, 36, 539-549.	1.5	9
29	Intraband absorption for InAs/GaAs quantum dot infrared photodetectors. Applied Physics Letters, 2004, 84, 1934-1936.	1.5	100
30	Rabi oscillations of ultrashort optical pulses in 1.55 μ m InGaAs/InGaAsP quantum-well amplifiers. Journal of Applied Physics, 2004, 96, 922-924.	1.1	6
31	Dispersion-induced ultrafast pulse reshaping in 1.55- μ m InGaAs-InGaAsP optical amplifiers. IEEE Journal of Quantum Electronics, 2003, 39, 1388-1393.	1.0	6
32	Magneto-Excitons in Semiconductor Quantum Rings. Physica Status Solidi A, 2002, 190, 781-785.	1.7	10
33	Excitation induced shift and broadening of the exciton resonance. Physica B: Condensed Matter, 2002, 314, 309-313.	1.3	12
34	Exciton/Free-Carrier Plasma in GaN-Based Quantum Wells: Scattering and Screening. Physica Status Solidi A, 2001, 183, 87-90.	1.7	1
35	The Role of Spin Orientation and Relaxation in Exciton-Exciton Scattering. Physica Status Solidi (B): Basic Research, 2000, 221, 477-480.	0.7	6
36	Spin-Dependent Exciton-Exciton Interaction in ZnSe Quantum Wells. Physica Status Solidi A, 2000, 178, 535-538.	1.7	4

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37	The intrasubband and intersubband relaxation of nonequilibrium electron populations in wide semiconductor quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 7, 229-232.	1.3	3
38	Influence of exchange scattering and dynamic screening on electron-electron scattering rates in semiconductor quantum wells. <i>Physical Review B</i> , 2000, 62, 15327-15330.	1.1	9
39	Coherent Dynamics of the Localized Vibrational Modes of Hydrogen in CaF ₂ . <i>Physical Review Letters</i> , 2000, 84, 4998-5001.	2.9	18
40	Plasma-expansion induced absorption and refraction changes in ZnSe epilayers. <i>Journal of Modern Optics</i> , 2000, 47, 1995-2004.	0.6	1
41	Exciton-acoustic-phonon scattering in (Zn,Cd)Se/ZnSe quantum wells: The influence of quantum confinement. <i>Physical Review B</i> , 1999, 59, 9756-9759.	1.1	11
42	Static screening approximations for calculations of intersubband electron-electron scattering rates in semiconductor quantum wells. <i>Physica B: Condensed Matter</i> , 1999, 272, 237-240.	1.3	4
43	Ionization degree of the electron-hole plasma in semiconductor quantum wells. <i>Physical Review B</i> , 1999, 60, 5570-5581.	1.1	36
44	Intersubband and intrasubband electronic scattering rates in semiconductor quantum wells. <i>Physical Review B</i> , 1999, 59, 15796-15805.	1.1	47
45	Red-shift of stimulated emission in ZnSe-based semiconductors. <i>Optical Materials</i> , 1998, 10, 235-240.	1.7	3
46	Biexciton emission from thick ZnSe epilayer grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 1998, 83, 2035-2040.	1.1	5
47	Levinson's theorem and scattering phase-shift contributions to the partition function of interacting gases in two dimensions. <i>Physical Review B</i> , 1998, 58, 3963-3968.	1.1	23
48	Measurement of the critical thickness of ZnCdSe quantum wells in ZnSe barrier layers by the piezoelectric effect. <i>Applied Physics Letters</i> , 1998, 73, 3141-3143.	1.5	5
49	Topography measurements of the critical thickness of ZnSe grown on GaAs. <i>Applied Physics Letters</i> , 1998, 72, 3148-3150.	1.5	15
50	Comparison of the biexciton and exciton coherent polarization lifetimes in ZnSe/(Zn,Cd)Se multiple quantum wells. <i>Semiconductor Science and Technology</i> , 1997, 12, 820-824.	1.0	8
51	Direct observation of the LO phonon bottleneck in wide GaAs/Al _x Ga _{1-x} As quantum wells. <i>Physical Review B</i> , 1997, 55, 5171-5176.	1.1	126
52	Multisubband nonequilibrium electron-electron scattering in semiconductor quantum wells. <i>Physical Review B</i> , 1997, 55, R16025-R16028.	1.1	14
53	Band alignments and offsets in In(As,Sb)/InAs superlattices. <i>Physical Review B</i> , 1997, 55, 4589-4595.	1.1	27
54	Variable-phase method and Levinson's theorem in two dimensions: Application to a screened Coulomb potential. <i>Solid State Communications</i> , 1997, 103, 325-329.	0.9	38

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55	Intersubband Dynamics below the Optical Phonon Energy for Single and Coupled Quantum Well Systems. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 204, 208-211.	0.7	2
56	Time resolved studies of intersubband relaxation in GaAs/AlGaAs quantum wells below the optical phonon energy using a free electron laser. <i>Superlattices and Microstructures</i> , 1996, 19, 17-24.	1.4	17
57	Intersubband lifetimes in quantum wells. <i>Solid-State Electronics</i> , 1996, 40, 59-62.	0.8	2
58	Band structure and band offsets in quantum wells. <i>Journal of Crystal Growth</i> , 1996, 159, 542-545.	0.7	6
59	A comparison of lasing mechanisms in ZnSe and GaAs. <i>Journal of Crystal Growth</i> , 1996, 159, 667-671.	0.7	22
60	Suppression of Auger recombination in arsenic-rich InAs $_{1-x}$ Sbx strained layer superlattices. <i>Journal of Applied Physics</i> , 1996, 80, 2994-2997.	1.1	54
61	A magneto-photoluminescence investigation of the band offset between InAs and arsenic-rich InAs $_{1-x}$ Sbx alloys. <i>Applied Physics Letters</i> , 1996, 69, 2501-2503.	1.5	17
62	Direct measurement of the polarization-dependent absorption and saturation in an InGaAs/InGaAsP single quantum well. <i>Journal of Applied Physics</i> , 1996, 80, 4027-4032.	1.1	4
63	Screening effects in piezoelectric strained [111]-Grown (In, Ga) As/(Al, Ga) As quantum wells. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1995, 17, 1595-1599.	0.4	5
64	Influence of electron temperature and carrier concentration on electron-LO-phonon intersubband scattering in wide GaAs/AlxGa $_{1-x}$ As quantum wells. <i>Physical Review B</i> , 1995, 52, 1874-1881.	1.1	48
65	Investigation of excitonic saturation by time-resolved circular dichroism in GaAs-AlxGa $_{1-x}$ As multiple quantum wells. <i>Physical Review B</i> , 1994, 49, 17160-17169.	1.1	39
66	Photoluminescence excitation spectroscopy of the lasing transition in ZnSe-(Zn,Cd)Se quantum wells. <i>Journal of Crystal Growth</i> , 1994, 138, 759-763.	0.7	21
67	Comparison of optical nonlinearities in piezoelectric strained [111]- and [001]-grown (In,Ga)As/(Al,Ga)As quantum wells. <i>Applied Physics Letters</i> , 1994, 65, 2771-2773.	1.5	28
68	Band-edge refractive optical nonlinearities in molecular beam-grown ZnSe epilayers. <i>Applied Physics Letters</i> , 1993, 63, 709-711.	1.5	13
69	Excitonic electroabsorption and electrorefraction in semiconductors. <i>Physical Review B</i> , 1993, 48, 5105-5112.	1.1	3
70	Empirical determination of the electroabsorption coefficient in semiconductors. <i>Journal of Applied Physics</i> , 1993, 74, 4145-4148.	1.1	6
71	Exciton-related lasing mechanism in ZnSe-(Zn,Cd)Se multiple quantum wells. <i>Physical Review B</i> , 1993, 48, 11994-12000.	1.1	69
72	Simple formula for exciton binding energy in quantum wells with zero band offsets. <i>Physical Review B</i> , 1992, 45, 6950-6952.	1.1	16

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73	Direct measurement of the effective-mass renormalization in n-type modulation-doped $\text{Al}_{0.23}\text{Ga}_{0.77}\text{As}/\text{In}_{0.08}\text{Ga}_{0.92}\text{As}/\text{GaAs}$ quantum wells. <i>Physical Review B</i> , 1992, 46, 13611-13614.	1.1	5
74	Optical nonlinearities in mixed type I-type II GaAs/AlAs multiple quantum wells. <i>Physical Review B</i> , 1992, 45, 13499-13508.	1.1	52
75	"X" electron transfer in mixed type I-type II GaAs/AlAs quantum well structures. <i>Solid State Communications</i> , 1992, 83, 245-248.	0.9	44
76	Optical nonlinearities due to long-lived electron-hole plasmas. , 1991, , .		1
77	Nonlinear optical properties of type-II quantum wells. <i>Physical Review B</i> , 1991, 44, 3043-3053.	1.1	22
78	Low-power, all-optical nonlinear absorption in asymmetric double quantum wells. <i>Applied Physics Letters</i> , 1991, 58, 2889-2891.	1.5	19
79	cw and femtosecond optical nonlinearities of type-II quantum wells. <i>Physical Review Letters</i> , 1991, 66, 1358-1361.	2.9	30
80	Theory of band-edge optical nonlinearities in type-I and type-II quantum-well structures. <i>Physical Review B</i> , 1991, 44, 3031-3042.	1.1	39
81	Influence of growth interruption on inverted interface quality in single AlAs/GaAs quantum wells grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 1990, 68, 5595-5600.	1.1	12
82	Exciton binding energies in semiconductor superlattices: An anisotropic-effective-medium approach. <i>Physical Review B</i> , 1990, 42, 7084-7089.	1.1	42
83	Exciton binding energy and external-field-induced blue shift in double quantum wells. <i>Physical Review B</i> , 1989, 40, 5515-5521.	1.1	73
84	Biexcitonic nonlinearity in $\text{GaAs}/\text{Ga}_{x}\text{Al}_{1-x}\text{As}$ quantum wells and quantum-well wires. <i>Physical Review B</i> , 1988, 38, 3931-3936.	1.1	21
85	Envelope-function matching conditions for $\text{GaAs}/(\text{Al,Ga})\text{As}$ heterojunctions. <i>Physical Review B</i> , 1988, 38, 10057-10059.	1.1	88
86	Surface Effects in Optically Bistable and Transphaser Devices. <i>Journal of Modern Optics</i> , 1987, 34, 137-150.	0.6	4
87	Excitons and biexcitons in semiconductor quantum wires. <i>Physical Review B</i> , 1987, 36, 6099-6104.	1.1	234
88	Spatiotemporal chaos in a ring cavity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1987, 4, 1116.	0.9	10
89	Time resolved self-defocusing in InSb at room temperature. <i>IEEE Journal of Quantum Electronics</i> , 1985, 21, 94-99.	1.0	35
90	Diffusive transverse coupling of bistable elements - Switching waves and crosstalk. <i>IEEE Journal of Quantum Electronics</i> , 1985, 21, 1399-1403.	1.0	40

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91	Two-dimensional time-dependent quantum-mechanical scattering event. American Journal of Physics, 1984, 52, 60-68.	0.3	48