

David Citrin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4032658/publications.pdf>

Version: 2024-02-01

153
papers

3,783
citations

147726

31
h-index

143943

57
g-index

153
all docs

153
docs citations

153
times ranked

2671
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiative lifetimes of excitons in quantum wells: Localization and phase-coherence effects. Physical Review B, 1993, 47, 3832-3841.	1.1	305
2	Time-Delay Identification in a Chaotic Semiconductor Laser With Optical Feedback: A Dynamical Point of View. IEEE Journal of Quantum Electronics, 2009, 45, 879-1891.	1.0	191
3	Loss of time-delay signature in the chaotic output of a semiconductor laser with optical feedback. Optics Letters, 2007, 32, 2960.	1.7	190
4	Long intrinsic radiative lifetimes of excitons in quantum wires. Physical Review Letters, 1992, 69, 3393-3396.	2.9	174
5	Coherent Excitation Transport in Metal~Nanoparticle Chains. Nano Letters, 2004, 4, 1561-1565.	4.5	139
6	Graded index photonic crystals. Optics Express, 2007, 15, 1240.	1.7	129
7	Nondestructive evaluation of forced delamination in glass fiber-reinforced composites by terahertz and ultrasonic waves. Composites Part B: Engineering, 2015, 79, 667-675.	5.9	129
8	Quantum Coherence in an Optical Modulator. Science, 2005, 310, 651-653.	6.0	118
9	Two approaches for ultrafast random bit generation based on the chaotic dynamics of a semiconductor laser. Optics Express, 2014, 22, 6634.	1.7	115
10	Annular photonic crystals. Optics Express, 2005, 13, 10316.	1.7	109
11	Plasmon Polaritons in Finite-Length Metal~Nanoparticle Chains:~ The Role of Chain Length Unravelling. Nano Letters, 2005, 5, 985-989.	4.5	107
12	Plasmon-polariton transport in metal-nanoparticle chains embedded in a gain medium. Optics Letters, 2006, 31, 98.	1.7	105
13	Photonic crystals for biochemical sensing in the terahertz region. Applied Physics Letters, 2005, 87, 041108.	1.5	91
14	An analogy between various machine-learning techniques for detecting construction materials in digital images. KSCE Journal of Civil Engineering, 2016, 20, 1178-1188.	0.9	70
15	Coulomb and radiation screening in photoconductive terahertz sources. Applied Physics Letters, 2006, 88, 161117.	1.5	67
16	Terahertz Superresolution Stratigraphic Characterization of Multilayered Structures Using Sparse Deconvolution. IEEE Transactions on Terahertz Science and Technology, 2017, 7, 260-267.	2.0	67
17	Terahertz frequency-wavelet domain deconvolution for stratigraphic and subsurface investigation of art painting. Optics Express, 2016, 24, 26972.	1.7	62
18	Polarization-resolved terahertz imaging of intra- and inter-laminar damages in hybrid fiber-reinforced composite laminate subject to low-velocity impact. Composites Part B: Engineering, 2016, 92, 167-174.	5.9	53

#	ARTICLE	IF	CITATIONS
19	Coupled-resonator optical waveguides for biochemical sensing of nanoliter volumes of analyte in the terahertz region. <i>Applied Physics Letters</i> , 2005, 87, 241119.	1.5	52
20	Global mapping of stratigraphy of an old-master painting using sparsity-based terahertz reflectometry. <i>Scientific Reports</i> , 2017, 7, 15098.	1.6	51
21	Enhanced Terahertz Imaging of Small Forced Delamination in Woven Glass Fibre-reinforced Composites with Wavelet De-noising. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 289-301.	1.2	50
22	Compressive Sensing with Optical Chaos. <i>Scientific Reports</i> , 2016, 6, 35206.	1.6	45
23	Determination of the eigenfunctions of arbitrary nanostructures using time domain simulation. <i>Journal of Applied Physics</i> , 2002, 91, 3219-3226.	1.1	43
24	Time-domain simulation of two electrons in a quantum dot. <i>Journal of Applied Physics</i> , 2001, 89, 3841-3846.	1.1	42
25	Supersymmetric optimization of second-harmonic generation in mid-infrared quantum cascade lasers. <i>Optics Express</i> , 2006, 14, 4043.	1.7	39
26	Coherent transport of excitons in quantum-dot chains: role of retardation. <i>Optics Letters</i> , 1995, 20, 901.	1.7	38
27	Terahertz Quantitative Nondestructive Evaluation of Failure Modes in Polymer-Coated Steel. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 1-7.	1.9	37
28	Visualization of subsurface damage in woven carbon fiber-reinforced composites using polarization-sensitive terahertz imaging. <i>NDT and E International</i> , 2018, 99, 72-79.	1.7	37
29	Semiclassical theory of terahertz multiple-harmonic generation in semiconductor superlattices. <i>Applied Physics Letters</i> , 1999, 75, 3536-3538.	1.5	35
30	Depth resolution enhancement of terahertz deconvolution by autoregressive spectral extrapolation. <i>Optics Letters</i> , 2017, 42, 1828.	1.7	33
31	Nonlinear dynamics in far-infrared driven quantum-well intersubband transitions. <i>Physical Review B</i> , 2002, 66, .	1.1	31
32	Dual-microring-resonator interference sensor. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	31
33	Quantum control with linear chirp in two-subbandn-type doped quantum wells. <i>Physical Review B</i> , 2006, 74, .	1.1	30
34	Polarization-independent slow light in annular photonic crystals. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	28
35	Enhancing optical-feedback-induced chaotic dynamics in semiconductor ring lasers via optical injection. <i>Nonlinear Dynamics</i> , 2018, 92, 315-324.	2.7	28
36	Optical absorption of THz-field-driven and dc-biased quantum wells. <i>Physical Review B</i> , 2001, 64, .	1.1	27

#	ARTICLE	IF	CITATIONS
37	A Novel Optical Coupler Design With Graded-Index Photonic Crystals. IEEE Photonics Technology Letters, 2007, 19, 1532-1534.	1.3	26
38	Microcavity effect on the electron-hole relative motion in semiconductor quantum wells. Physical Review B, 2003, 68, .	1.1	24
39	Highly Sensitive Athermal Optical Microring Sensor Based on Intensity Detection. IEEE Journal of Quantum Electronics, 2011, 47, 354-358.	1.0	24
40	Experimental bifurcation-cascade diagram of an external-cavity semiconductor laser. Optics Express, 2014, 22, 2348.	1.7	24
41	Terahertz Sideband Generation and Coherent Control in Semiconductor Microcavities. Physical Review Letters, 1999, 82, 3172-3175.	2.9	23
42	Quantum-wire excitons: Polaritons and exchange effects. Physical Review B, 1993, 48, 2535-2542.	1.1	22
43	Exciton dephasing and absorption line shape in semiconductor quantum dots. IEEE Journal of Selected Topics in Quantum Electronics, 2002, 8, 1009-1014.	1.9	22
44	Photonic-Crystal Heterostructure Waveguides. IEEE Journal of Quantum Electronics, 2007, 43, 78-84.	1.0	22
45	Numerical calculation of the terahertz field-induced changes in the optical absorption in quantum wells. IEEE Journal of Selected Topics in Quantum Electronics, 2002, 8, 457-463.	1.9	21
46	Intracavity nonlinearities in quantum-cascade lasers. Journal of Applied Physics, 2009, 106, 031101.	1.1	21
47	A multi-GHz chaotic optoelectronic oscillator based on laser terminal voltage. Applied Physics Letters, 2016, 108, 191109.	1.5	21
48	Pulsed THz imaging for thickness characterization of plastic sheets. NDT and E International, 2020, 116, 102338.	1.7	20
49	Thickness characterization of multi-layer coated steel by terahertz time-of-flight tomography. NDT and E International, 2020, 116, 102358.	1.7	19
50	Terahertz Time-of-Flight Tomography Beyond the Axial Resolution Limit: Autoregressive Spectral Estimation Based on the Modified Covariance Method. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 926-939.	1.2	19
51	Nondestructive measurement of mill-scale thickness on steel by terahertz time-of-flight tomography. Surface and Coatings Technology, 2020, 393, 125765.	2.2	19
52	Picosecond dynamics of terahertz-sideband generation in far-infrared illuminated quantum wells. Applied Physics Letters, 2000, 76, 3176-3178.	1.5	18
53	Statistics of the optical intensity of a chaotic external-cavity DFB laser. Optics Letters, 2014, 39, 5949.	1.7	18
54	Low-Noise X-Band Tunable Microwave Generator Based on a Semiconductor Laser With Feedback. IEEE Photonics Technology Letters, 2018, 30, 1597-1600.	1.3	18

#	ARTICLE	IF	CITATIONS
55	Slow Light in Square-Lattice Chalcogenide Photonic Crystal Holey Fibers. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 271-278.	1.9	17
56	Three-dimensional nondestructive characterization of delamination in GFRP by terahertz time-of-flight tomography with sparse Bayesian learning-based spectrum-graph integration strategy. Composites Part B: Engineering, 2021, 225, 109285.	5.9	16
57	Coherent control of quantum-well excitons in a resonant semiconductor microcavity for high-speed all-optical switching. IEEE Journal of Selected Topics in Quantum Electronics, 1996, 2, 401-409.	1.9	15
58	Constraints on coherent control of quantum-well excitons for high-speed all-optical switching. IEEE Journal of Quantum Electronics, 1997, 33, 404-407.	1.0	15
59	Electrodynamical treatment of the electron-hole long-range exchange interaction in semiconductor nanocrystals. Physics of the Solid State, 2003, 45, 768-781.	0.2	15
60	Low-frequency fluctuations in an external-cavity laser leading to extreme events. Physical Review E, 2016, 93, 042216.	0.8	15
61	Efficient terahertz generation using trap-enhanced fields in semi-insulating photoconductors by spatially broadened excitation. Journal of Applied Physics, 2007, 101, 053105.	1.1	14
62	Generation of 10-THz transients from a subpicosecond optical pulse and a 1-THz field in quantum wells. Applied Physics Letters, 1997, 70, 1189-1191.	1.5	13
63	Polarization-Independent Single-Mode Waveguiding With Honeycomb Photonic Crystals. IEEE Photonics Technology Letters, 2015, 27, 840-843.	1.3	13
64	Tunable X-Band Optoelectronic Oscillators Based on External-Cavity Semiconductor Lasers. IEEE Journal of Quantum Electronics, 2017, 53, 1-6.	1.0	13
65	Optical and Transport Characteristics of Quantum-Cascade Lasers With Optimized Second-Harmonic Generation. IEEE Journal of Quantum Electronics, 2007, 43, 391-398.	1.0	12
66	Excitonic-state trapping and quasiadiabatic population transfer in a two-band semiconductor. Physical Review B, 1999, 60, 15523-15526.	1.1	11
67	Quantum-well optical modulator at terahertz frequencies. Journal of Applied Physics, 2003, 93, 10131-10133.	1.1	11
68	Time-domain simulation of quantum spin. Journal of Applied Physics, 2003, 94, 6518-6524.	1.1	11
69	Magnetic Bloch Oscillations in Nanowire Superlattice Rings. Physical Review Letters, 2004, 92, 196803.	2.9	11
70	Slab-Thickness Dependence of Photonic Bandgap in Photonic-Crystal Slabs. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1636-1642.	1.9	11
71	Mapping the nonlinear dynamics of a laser diode via its terminal voltage. Optics Letters, 2014, 39, 5630.	1.7	11
72	Multiscale Ordinal Symbolic Analysis of the Lang-Kobayashi Model for External-Cavity Semiconductor Lasers: A Test of Theory. IEEE Journal of Quantum Electronics, 2015, 51, 1-6.	1.0	11

#	ARTICLE	IF	CITATIONS
73	Compact high-performance polarization beam splitter based on a silicon photonic crystal heterojunction. <i>Optical Materials</i> , 2020, 109, 110256.	1.7	11
74	Staircase Dynamics of a Photonic Microwave Oscillator Based on a Laser Diode with Delayed Optoelectronic Feedback. <i>Physical Review Applied</i> , 2020, 13, .	1.5	11
75	Coherent control of terahertz generation in a DC-biased semiconductor microcavity. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 1996, 2, 720-723.	1.9	10
76	Bifurcation-Cascade Diagrams of an External-Cavity Semiconductor Laser: Experiment and Theory. <i>IEEE Journal of Quantum Electronics</i> , 2014, 50, 965-972.	1.0	10
77	Ultrafast modulation of semiconductor lasers through a terahertz field. <i>Applied Physics Letters</i> , 1999, 75, 442-444.	1.5	9
78	Optimized Asymmetric Double Quantum Well for High Electric-Field-Sensitivity Electroabsorption: Excitonic Mixing Effects. <i>IEEE Journal of Quantum Electronics</i> , 2007, 43, 651-654.	1.0	9
79	Multistate intermittency on the route to chaos of a semiconductor laser subjected to optical feedback from a long external cavity. <i>Chaos</i> , 2018, 28, 011102.	1.0	9
80	Resonances between fundamental frequencies for lasers with large delayed feedbacks. <i>Physical Review E</i> , 2019, 99, 062219.	0.8	9
81	Optical constants of CuO and ZnO particles in the terahertz frequency range. <i>Ceramics International</i> , 2020, 46, 24110-24119.	2.3	9
82	Microwave Frequency Comb Generation by Gain-Switching Versus Relaxation Oscillations. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 491-494.	1.3	9
83	Full scale promoted convolution neural network for intelligent terahertz 3D characterization of CFRP delamination. <i>Composites Part B: Engineering</i> , 2022, 242, 110022.	5.9	9
84	Enhanced optical/THz frequency mixing in a biased quantum well. <i>Solid State Communications</i> , 2001, 120, 123-127.	0.9	8
85	Characterization of nanoporous Al ₂ O ₃ films at terahertz frequencies. <i>Optics Letters</i> , 2020, 45, 4092.	1.7	8
86	Mutual transparency of coherent laser beams through a terahertz-field-driven quantum well. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002, 19, 1905.	0.9	7
87	Far-field optical coupling to semi-infinite metal-nanoparticle chains. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, 937.	0.9	7
88	Scanning acoustic microscopy investigation of weld lines in injection-molded parts manufactured from industrial thermoplastic polymer. <i>Micron</i> , 2020, 138, 102925.	1.1	7
89	Interband optical spectra of magnetoexcitons in semiconductor nanorings: Electron-hole spatial correlation. <i>Physical Review B</i> , 2005, 72, .	1.1	6
90	Simple technique to fabricate microscale and nanoscale silicon waveguide devices. <i>Frontiers of Optoelectronics in China</i> , 2009, 2, 308-311.	0.2	6

#	ARTICLE	IF	CITATIONS
91	Chaotic laser voltage: An electronic entropy source. Applied Physics Letters, 2018, 112, .	1.5	6
92	Photonic Sampling Analog-to-Digital Conversion With Read-In Timing Jitter. IEEE Transactions on Communications, 2022, 70, 445-454.	4.9	6
93	Terahertz Dielectric Characterization of Low-Loss Thermoplastics for 6G Applications. International Journal of Wireless Information Networks, 2022, 29, 269-274.	1.8	6
94	Calculus of sea-displacement operators. Physical Review B, 2002, 65, .	1.1	5
95	Nonlinear terahertz properties of n-type quantum-well heterostructures. IEEE Journal of Selected Topics in Quantum Electronics, 2002, 8, 464-473.	1.9	5
96	Enhancement of terahertz radiation from photoconductors by elliptically focused excitation. Applied Physics Letters, 2005, 87, 061108.	1.5	5
97	Plasmon Polaritons in 2-D Nanoparticle Arrays. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1530-1535.	1.9	5
98	Excitation of nonradiative surface-plasmon-polariton beams in nanoparticle arrays. Physical Review B, 2008, 78, .	1.1	5
99	Simulation of spatiotemporal terahertz pulse shaping in 3-D using conductive apertures of finite thickness. IEEE Journal of Quantum Electronics, 2001, 37, 1226-1231.	1.0	4
100	The vector reflector. Optics Letters, 2012, 37, 2376.	1.7	4
101	Nondestructive characterization of nanoporous alumina films using terahertz scattering imaging. Surface and Coatings Technology, 2021, 408, 126792.	2.2	4
102	Terahertz Nondestructive Stratigraphic Analysis of Complex Layered Structures: Reconstruction Techniques. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 929-946.	1.2	4
103	Optical square-wave generation in a semiconductor laser with optoelectronic feedback. Optics Letters, 2021, 46, 6031.	1.7	4
104	Power Spectral Density of Injection-Locked Optoelectronic Oscillators: Effects of Phase Noise. Journal of Lightwave Technology, 2021, 39, 7734-7739.	2.7	4
105	Period-doubling and Hopf bifurcations in far-infrared driven quantum well intersubband transitions. Physical Review B, 2003, 68, .	1.1	3
106	New Approaches in Biochemical Sensing using Photonic Crystals in the Terahertz Region. , 0, , .		3
107	A phase it's going through. Nature, 2007, 449, 669-670.	13.7	3
108	Quantum stabilization of microcavity excitation in a coupled microcavityâ€‘half-cavity system. Physical Review B, 2020, 101, .	1.1	3

#	ARTICLE	IF	CITATIONS
109	Carrier-envelope-stabilized optical frequency combs: effect of fluctuations on the comb line shape. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 719.	0.9	3
110	Terahertz Permittivity of Pressed ZnO and CuO Powder in Polyethylene Pellets: Effect of Porosity. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2021, 11, 402-407.	2.0	3
111	Diagnosis of injection-molded weld lines in ABS thermoplastic by polarized terahertz reflective imaging. <i>NDT and E International</i> , 2021, 122, 102497.	1.7	3
112	Terahertz Imaging for Paper Handling of Legacy Documents. <i>Sensors</i> , 2021, 21, 6756.	2.1	3
113	Revealing inscriptions obscured by time on an early-modern lead funerary cross using terahertz multispectral imaging. <i>Scientific Reports</i> , 2022, 12, 3429.	1.6	3
114	Coherent exciton-photon dynamics in single, double, and quintuple quantum wells. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1995, 17, 1769-1774.	0.4	2
115	Biochemical sensors with photonic crystals in the terahertz region. , 2005, , .		2
116	Plasmon-polariton transport in hybrid semiconductor-metal nanoparticle structures with gain. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 2349-2353.	0.7	2
117	Vector lensing with a single chain of metal nanoparticles. <i>Physical Review B</i> , 2010, 81, .	1.1	2
118	Connection between Optical Frequency Combs and Microwave Frequency Combs Produced by Active-Mode-Locked Lasers Subject to Timing Jitter. <i>Physical Review Applied</i> , 2021, 16, .	1.5	2
119	Flexibly designed polarization-independent electromagnetically induced transparency-like effect via hybrid metal-dielectric terahertz metamaterial. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, C136.	0.9	2
120	Terahertz pulse-induced switching of a quantum-well optical amplifier. <i>Applied Physics Letters</i> , 1998, 73, 3872-3874.	1.5	1
121	Excitons in Strong Terahertz Fields: Optical Properties and Wavepacket Dynamics. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 253-259.	0.7	1
122	Time-domain simulation of quantum nanostructures. , 0, , .		1
123	Terahertz/optical mixing in symmetric semiconductor quantum wells embedded in optical microcavities. <i>Journal of Lightwave Technology</i> , 2002, 20, 1983-1988.	2.7	1
124	Design of nonlinearity-enhanced quantum-cascade lasers. <i>Optical and Quantum Electronics</i> , 2008, 40, 191-195.	1.5	1
125	All-optical clock enhancement for transmitted NRZ data streams based on CFBG. <i>Microwave and Optical Technology Letters</i> , 2008, 50, 2764-2768.	0.9	1
126	The complete bandgap in ring-shaped photonic crystal SOI slab. , 2008, , .		1

#	ARTICLE	IF	CITATIONS
127	Complete two-dimensional photonic bandgap in refractive-index ratio 21 photonic crystals due to high-order bands. Optics Letters, 2021, 46, 5558-5561.	1.7	1
128	Effects of Timing Noise on Square-Wave Optoelectronic Oscillators. Applied Sciences (Switzerland), 2021, 11, 12038.	1.3	1
129	Anisotropic electron-hole wavepackets in quantum wells for multiple-harmonic-generation in the terahertz regime. , 0, , .		0
130	Two color picosecond time resolved PL studies of anti-Stokes PL in GaAs/AlGaAs asymmetric double quantum wells. , 0, , .		0
131	Interaction of THz transients and ultrashort optical pulses in quantum wells: anisotropic wavepackets and optical switches. , 0, , .		0
132	Spatially resolved picosecond luminescence studies of carrier sweep-out photoconductive switches. , 2001, , .		0
133	Optical properties of quantum wells driven by a terahertz electric field. , 0, , .		0
134	Terahertz/optical properties of semiconductor quantum wells. , 0, , .		0
135	Mutual Optical Transparency through Quantum Wells in Strong Terahertz Fields. Physica Status Solidi (B): Basic Research, 2002, 234, 147-154.	0.7	0
136	Terahertz electrooptic modulation of a single biased GaAs quantum well. , 2003, , .		0
137	Terahertz nonlinearities in semiconductor quantum wells. , 0, , .		0
138	Biochemical sensing application of photonic crystal based devices in the far-infrared regime. , 0, , .		0
139	The transport of photoexcited electrons in photoconductive THz sources with spatially patterned excitation. , 2005, , .		0
140	Enhancement of second-harmonic generation in mid-infrared quantum cascade lasers. , 2006, , .		0
141	Strong excitonic mixing effect in asymmetric double quantum wells: On the optimization of electroabsorption modulators. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2400-2403.	0.8	0
142	Optical-layer multicast in wavelength-routing network. , 2008, , .		0
143	Multiplexing digital information using hyperchaotic optoelectronic oscillators with nonlinear time-delayed feedback loops. , 2009, , .		0
144	High sensitivity dual microring sensor based on intensity detection. , 2010, , .		0

#	ARTICLE	IF	CITATIONS
145	Plasmonic structures of metal nanoparticles: Chains and arrays. , 2012, , .		0
146	Impact damage characterization in hybrid fiber-reinforced composites using terahertz imaging in time and frequency domain. , 2015, , .		0
147	Terahertz reflective imaging of damage mechanisms in the coating on metal substrate. , 2016, , .		0
148	Comparative study of mid-20 th C. Art using THz and X-ray imaging. , 2016, , .		0
149	Stratigraphie details of a 17th century oil painting on canvas revealed by terahertz imaging. , 2017, , .		0
150	Terahertz deconvolution based on autoregressive spectral extrapolation. , 2017, , .		0
151	Characterization of nanoporous alumina using terahertz reflectometry and scattering imaging. , 2021, , .		0
152	Terahertz Characterization of Roman Amphora Sherds. , 2020, , .		0
153	Two color picosecond time resolved PL studies of anti-Stokes PL in GaAs/AlGaAs asymmetric double quantum wells. , 0, , .		0