Elias Glytsis

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4007570/publications.pdf

Version: 2024-02-01

120 papers	3,431 citations	147801 31 h-index	155660 55 g-index
120 all docs	120 docs citations	120 times ranked	1837 citing authors

#	Article	IF	Citations
1	Long-period fibre grating fabrication with focused CO2 laser pulses. Electronics Letters, 1998, 34, 302.	1.0	283
2	Multilayer waveguides: efficient numerical analysis of general structures. Journal of Lightwave Technology, 1992, 10, 1344-1351.	4.6	161
3	Efficient coupling of highâ€intensity subpicosecond laser pulses into solids. Applied Physics Letters, 1993, 62, 1068-1070.	3.3	141
4	Normal-incidence guided-mode resonant grating filters:?design and experimental demonstration. Optics Letters, 1998, 23, 700.	3.3	140
5	Determination of guided and leaky modes in lossless and lossy planar multilayer optical waveguides: reflection pole method and wavevector density method. Journal of Lightwave Technology, 1999, 17, 929-941.	4.6	132
6	Homogeneous layer models for high-spatial-frequency dielectric surface-relief gratings: conical diffraction and antireflection designs. Applied Optics, 1994, 33, 2695.	2.1	124
7	Rigorous three-dimensional coupled-wave diffraction analysis of single and cascaded anisotropic gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1987, 4, 2061.	1.5	116
8	Transmission characteristics of long-period fiber gratings having arbitrary azimuthal/radial refractive index variations. Journal of Lightwave Technology, 2003, 21, 218-227.	4.6	113
9	Surface mode at isotropicâ€“uniaxial and isotropicâ€“biaxial interfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 248.	1.5	93
10	Rigorous electromagnetic analysis of diffractive cylindrical lenses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1996, 13, 2219.	1.5	91
11	Three-dimensional (vector) rigorous coupled-wave analysis of anisotropic grating diffraction. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 1399.	1.5	79
12	Holographic grating formation in photopolymers: analysis and experimental results based on a nonlocal diffusion model and rigorous coupled-wave analysis. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1177.	2.1	79
13	High-spatial-frequency binary and multilevel stairstep gratings: polarization-selective mirrors and broadband antireflection surfaces. Applied Optics, 1992, 31, 4459.	2.1	69
14	Finite-number-of-periods holographic gratings with finite-width incident beams: analysis using the finite-difference frequency-domain method. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 2018.	1.5	68
15	Design, fabrication, and performance of preferential-order volume grating waveguide couplers. Applied Optics, 2000, 39, 1223.	2.1	60
16	Bound and quasibound state calculations for biased/unbiased semiconductor quantum heterostructures. IEEE Journal of Quantum Electronics, 1993, 29, 2731-2740.	1.9	58
17	Rigorous electromagnetic analysis of diffraction by finite-number-of-periods gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 907.	1.5	57
18	Guided-mode resonant subwavelength gratings: effects of finite beams and finite gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1912.	1.5	56

#	Article	IF	Citations
19	Electron waveguiding characteristics and ballistic current capacity of semiconductor quantum slabs. IEEE Journal of Quantum Electronics, 1993, 29, 1364-1382.	1.9	55
20	CO2 laser-induced long-period fibre gratings: spectral characteristics, cladding modes and polarisation independence. Electronics Letters, 1998, 34, 1416.	1.0	55
21	Effects of modulation strength in guided-mode resonant subwavelength gratings at normal incidence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1221.	1.5	55
22	Electrical and optical clock distribution networks for gigascale microprocessors. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2002, 10, 582-594.	3.1	53
23	Scalar integral diffraction methods: unification, accuracy, and comparison with a rigorous boundary element method with application to diffractive cylindrical lenses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 1822.	1.5	50
24	Very-high-temperature stable CO2-laser-induced long-period fibre gratings. Electronics Letters, 1999, 35, 740.	1.0	48
25	Polarizing mirror/absorber for visible wavelengths based on a silicon subwavelength grating: design and fabrication. Applied Optics, 1998, 37, 2534.	2.1	41
26	Rigorous 3-D coupled wave diffraction analysis of multiple superposed gratings in anisotropic media. Applied Optics, 1989, 28, 2401.	2.1	40
27	Metallic surface-relief on-axis and off-axis focusing diffractive cylindrical mirrors. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 113.	1.5	40
28	Zero-reflectivity homogeneous layers and high spatial-frequency surface-relief gratings on lossy materials. Applied Optics, 1987, 26, 3123.	2.1	39
29	Semiconductor superlattice interference filter design. Journal of Applied Physics, 1989, 65, 2535-2540.	2.5	37
30	Semiconductor quantum wells as electron wave slab waveguides. Journal of Applied Physics, 1989, 66, 1842-1848.	2.5	37
31	Volume grating preferential-order focusing waveguide coupler. Optics Letters, 1999, 24, 1708.	3.3	37
32	Subwavelength transmission grating retarders for use at 106 Î¼m. Applied Optics, 1996, 35, 6195.	2.1	34
33	Efficient solution of eigenvalue equations of optical waveguiding structures. Journal of Lightwave Technology, 1994, 12, 2080-2084.	4.6	31
34	Collimating cylindrical diffractive lenses: rigorous electromagnetic analysis and scalar approximation. Applied Optics, 1998, 37, 34.	2.1	28
35	Design of a high-efficiency volume grating coupler for line focusing. Applied Optics, 1998, 37, 2278.	2.1	28
36	Application of electromagnetics formalism to quantum-mechanical electron-wave propagation in semiconductors. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 333.	2.1	27

#	Article	IF	Citations
37	Two-dimensionally-periodic diffractive optical elements: limitations of scalar analysis. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 702.	1.5	27
38	Optical transitions to aboveâ€barrier quasibound states in asymmetric semiconductor heterostructures. Applied Physics Letters, 1993, 62, 1432-1434.	3.3	26
39	Quasi-bound states determination using a perturbed wavenumbers method in a large quantum box. IEEE Journal of Quantum Electronics, 1997, 33, 742-752.	1.9	26
40	Quantum transmittance from low-temperature ballistic electron emission spectroscopy of Au/Si(100) Schottky interfaces. Physical Review Letters, 1993, 71, 2999-3002.	7.8	23
41	Tuning, attenuating, and switching by controlled flexure of long-period fiber gratings. Optics Letters, 2001, 26, 61.	3.3	23
42	Comparison of beam propagation method and rigorous coupled-wave analysis for single and multiplexed volume gratings. Applied Optics, 1996, 35, 4426.	2.1	22
43	Characteristics of DuPont photopolymers for slanted holographic grating formations. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1722.	2.1	22
44	Ferroelectric liquid-crystal waveguide modulation based on a switchable uniaxialâ€“uniaxial interface. Applied Optics, 1996, 35, 3016.	2.1	21
45	Ballistic electron emission testing of semiconductor heterostructures. Solid State Communications, 1991, 80, 591-596.	1.9	20
46	Comparison of SS-GIC and MHD-EMP-GIC effects on power systems. IEEE Transactions on Power Delivery, 1994, 9, 194-207.	4.3	20
47	Finite-substrate-thickness cylindrical diffractive lenses: exact and approximate boundary-element methods. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 1294.	1.5	20
48	Theory and design of semiconductor electronâ€wave interference filter/emitters. Journal of Applied Physics, 1989, 66, 6158-6167.	2.5	19
49	Quantum well, voltageâ€induced quantum well, and quantum barrier electron waveguides: Mode characteristics and maximum current. Applied Physics Letters, 1991, 59, 1855-1857.	3.3	19
50	Ballistic-electron-emission spectroscopy of Au/Si and Au/GaAs interfaces: Low-temperature measurements and ballistic models. Physical Review B, 1996, 54, 16972-16982.	3.2	19
51	Effects of fabrication errors on the performance of cylindrical diffractive lenses: rigorous boundary-element method and scalar approximation. Applied Optics, 1998, 37, 6591.	2.1	19
52	Volume holographic grating couplers: rigorous analysis by use of the finite-difference frequency-domain method. Applied Optics, 2004, 43, 1009.	2.1	19
53	Electromagnetic analogies to general-Hamiltonian effective-mass electron wave propagation in semiconductors with spatially varying effective mass and potential energy. Physical Review B, 1992, 45, 8404-8407.	3.2	18
54	Semiconductor electronâ€wave slab waveguides. Journal of Applied Physics, 1989, 66, 1483-1485.	2.5	17

#	Article	IF	Citations
55	Volume grating couplers: polarization and loss effects. Applied Optics, 2002, 41, 5223.	2.1	17
56	Supermode analysis of electron wave directional coupling using a multilayer waveguide approach. Journal of Applied Physics, 1993, 73, 3352-3366.	2.5	16
57	Three-dimensional convergingâ€“diverging Gaussian beam diffraction by a volume grating. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 1293.	1.5	16
58	Electric field, permittivity, and strain distributions induced by interdigitated electrodes on electrooptic waveguides. Journal of Lightwave Technology, 1987, 5, 668-683.	4.6	15
59	Electron wave diffraction by semiconductor gratings: Rigorous analysis and design parameters. Applied Physics Letters, 1991, 59, 440-442.	3.3	15
60	Parallelized formulation of the maximum likelihood-expectation maximization algorithm for fine-grain message-passing architectures. IEEE Transactions on Medical Imaging, 1995, 14, 758-762.	8.9	15
61	Antireflection surface structure: dielectric layer(s) over a high spatial-frequency surface-relief grating on a lossy substrate. Applied Optics, 1988, 27, 4288.	2.1	14
62	Substrate-embedded and flip-chip-bonded photodetector polymer-based optical interconnects: analysis, design, and performance. Journal of Lightwave Technology, 2003, 21, 2382-2394.	4.6	14
63	Optical Transmission of Polymer Pillars for Chip I/O Optical Interconnections. IEEE Photonics Technology Letters, 2004, 16, 117-119.	2.5	14
64	Finite-difference-time-domain analysis of finite-number-of-periods holographic and surface-relief gratings. Applied Optics, 2008, 47, 1981.	2.1	14
65	Ballistic currentâ€voltage characteristics of semiconductor superlattice electronâ€wave quantumâ€interference filter/emitter negative differential resistance devices. Journal of Applied Physics, 1991, 70, 3920-3933.	2.5	12
66	Beam diameter threshold for polarization conversion photoinduced by spatially oscillating bulk photovoltaic currents in LiNbO_3: Fe. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 1714.	2.1	12
67	Optimization of finite-length input volume holographic grating couplers illuminated by finite-width incident beams. Applied Optics, 2005, 44, 4435.	2.1	12
68	Semiconductor biased superlattice tunable electron interference filter/emitter. Journal of Applied Physics, 1989, 66, 1494-1497.	2.5	11
69	Optimization of multilayer integrated optics waveguides. Journal of Lightwave Technology, 1994, 12, 512-518.	4.6	11
70	Lowâ€temperature scanning tunneling microscope for ballistic electron emission microscopy and spectroscopy. Review of Scientific Instruments, 1995, 66, 91-96.	1.3	11
71	Electronâ€wave quarterâ€wavelength quantum well impedance transformers between differing energyâ€gap semiconductors. Journal of Applied Physics, 1990, 67, 2623-2630.	2.5	10
72	Quantum reflection pole method for determination of quasibound states in semiconductor heterostructures. Superlattices and Microstructures, 1997, 22, 481-496.	3.1	10

#	Article	IF	Citations
73	Quasibound state determination of arbitrary-geometry quantum heterostructures. Microelectronics Journal, 1999, 30, 935-951.	2.0	10
74	Discontinuities in finiteâ€potential and gateâ€induced electron waveguides. Journal of Applied Physics, 1994, 76, 5567-5579.	2.5	9
75	Modeling considerations for rigorous boundary element method analysis of diffractive optical elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1495.	1.5	9
76	Quantum-well infrared photodetector structure synthesis: methodology and experimental verification. IEEE Journal of Quantum Electronics, 2003, 39, 468-477.	1.9	9
77	Optimization of anisotropically etched silicon surface-relief gratings for substrate-mode optical interconnects. Applied Optics, 2006, 45, 15.	2.1	9
78	Angular sensitivities of volume gratings for substrate-mode optical interconnects. Applied Optics, 2005, 44, 4447.	2.1	8
79	Electron-wave interference effects in a Ga1â^'xAlxAs single-barrier structure measured by ballistic electron emission spectroscopy. Applied Physics Letters, 1997, 71, 2292-2294.	3.3	6
80	Measurement of the zero-bias electron transmittance as a function of energy for half- and quarter-electron-wavelength semiconductor quantum-interference filters. Applied Physics Letters, 1998, 72, 374-376.	3.3	6
81	Focusing diffractive cylindrical mirrors:â€ƒrigorous evaluation of various design methods. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1487.	1.5	6
82	Uncertainty Study of Periodic-Grating Wideband Filters With Sparse Polynomial-Chaos Expansions. IEEE Photonics Technology Letters, 2019, 31, 1499-1502.	2.5	6
83	Diffraction of radio frequency waves by spatially modulated interfaces in the plasma edge in tokamaks. Journal of Plasma Physics, 2019, 85, .	2.1	6
84	Colorimetry-based retardation measurement method with white-light interference. Applied Optics, 2002, 41, 5290.	2.1	5
85	Preferential-order waveguide grating couplers: a comparative rigorous analysis using the finite-difference time-domain method. Applied Optics, 2010, 49, 5787.	2.1	5
86	Prism-Coupler Revisited: Analysis and Performance Characteristics Using the Finite-Difference Frequency-Domain Method. Journal of Lightwave Technology, 2014, 32, 4400-4409.	4.6	5
87	Performance analysis of waveguide-mode resonant optical filters with stochastic design parameters. Applied Optics, 2018, 57, 3106.	1.8	5
88	Uncertainty Quantification of Printed Microwave Interconnects by Use of the Sparse Polynomial Chaos Expansion Method. IEEE Microwave and Wireless Components Letters, 2022, 32, 1-4.	3.2	5
89	Nanostructure optical emitters based on quasibound electron energy levels. Microelectronics Journal, 1993, 24, 805-816.	2.0	4
90	Electron waveâ€packet response of aboveâ€allâ€bandâ€edges semiconductor quantum resonant structures. Journal of Applied Physics, 1994, 75, 5415-5422.	2.5	4

#	Article	IF	Citations
91	Optimization of sawtooth surface-relief gratings: effects of substrate refractive index and polarization. Applied Optics, 2006, 45, 3420.	2.1	4
92	Optical waveguide grating couplers: 2nd-order and 4th-order finite-difference time-domain analysis. Applied Optics, 2009, 48, 5164.	2.1	4
93	Anisotropic guided-wave diffraction by interdigitated electrode-induced phase gratings. Applied Optics, 1988, 27, 5031.	2.1	3
94	Application of the transmission line matrix method to the analysis of slab and channel optical waveguides. Applied Optics, 1995, 34, 2704.	2.1	3
95	Review and accuracy comparison of various permittivity-averaging schemes for material discontinuities in the two-dimensional FDFD method: implementation using efficient computer graphics techniques. Applied Optics, 2018, 57, 7303.	1.8	3
96	Intrusive polynomialâ€chaos approach for stochastic problems with axial symmetry. IET Microwaves, Antennas and Propagation, 2019, 13, 782-788.	1.4	3
97	An Anisotropic Sparse Adaptive Polynomial Chaos Method for the Uncertainty Quantification of Resonant Gratings-Performance. Journal of Lightwave Technology, 2022, 40, 3640-3646.	4.6	3
98	NUCLEAR MAGNETOHYDRODYNAMIC EMP, SOLAR STORMS, AND SUBSTORMS. International Journal of Modern Physics B, 1992, 06, 3353-3380.	2.0	2
99	Lossy multilayer channel optical waveguides analyzed by the transmission line matrix method. Applied Optics, 1996, 35, 5979.	2.1	2
100	Optimal usage of available wiring resources in diffractiveâ€“reflective optoelectronic multichip modules. Applied Optics, 1998, 37, 233.	2.1	2
101	Ballistic-electron-emission-spectroscopy detection of monolayer thickness fluctuations in a semiconductor heterostructure. Applied Physics Letters, 1999, 75, 283-285.	3.3	2
102	Wavelength response of waveguide volume grating couplers for optical interconnects. Applied Optics, 2004, 43, 5162.	2.1	2
103	Multi-domain modeling of 3D printed, nanotechnology and morphing/origami-based RF modules. , 2016, , .		2
104	Performance analysis of Givens rotation integrated optical interdigitated-electrode cross-channel Bragg diffraction devices: intrinsic accuracy. Applied Optics, 1990, 29, 2556.	2.1	1
105	QUANTUM STATE ENGINEERING BASED ON ELECTROMAGNETIC ANALOGIES AND NUMERICAL METHODS FOR SEMICONDUCTOR INTERSUBBAND LASERS. International Journal of High Speed Electronics and Systems, 1998, 09, 1235-1264.	0.7	1
106	Polynomial-chaos time-domain method for uncertainty analysis of axially-symmetric structures. , 2016, , .		1
107	Applicability and Optimization of the Alternating-Direction-Implicit Iterative Method for the 2-D Finite-Difference Frequency-Domain Solution of Scattering Problems. IEEE Transactions on Antennas and Propagation, 2017, 65, 7166-7173.	5.1	1
108	Simple derivative-free method of zero extraction by phase-based enclosure for determination of complex propagation constants in planar multilayer waveguides. Applied Optics, 2018, 57, 10485.	1.8	1

#	Article	IF	Citations
109	Performance analysis of Givens rotation-integrated optical interdigitated-electrode cross-channel Bragg diffraction devices: extrinsic and inherent errors. Applied Optics, 1992, 31, 1754.	2.1	0
110	<title>Quantum well mid-infrared lasers based on above-barrier transitions</title>. , 1994, 2145, 132.		0
111	QUANTUM STATE ENGINEERING BASED ON ELECTROMAGNETIC ANALOGIES AND NUMERICAL METHODS FOR SEMICONDUCTOR INTERSUBBAND LASERS. Selected Topics in Electornics and Systems, 2000, , 389-418.	0.2	0
112	Preferential input-waveguide grating couplers: rigorous analysis using the pseudospectral time-domain method. Applied Optics, 2012, 51, 8460.	1.8	0
113	Efficient uncertainty analysis of waveguide-mode resonant optical filters. , 2017, , .		0
114	An Adaptive Sparse Anisotropic Polynomial-Chaos Expansion Algorithm Applied to EMC Problems. IEEE Electromagnetic Compatibility Magazine, 2021, 10, 80-87.	0.1	0
115	Measurements of polarization- and wavelength-dependent performance of waveguide volume grating couplers. , 2004, , .		0
116	Finite-Number-of-Periods Gratings: Analysis Using the Total-Field/Scattered-Field Finite-Difference-Time-Domain Method. , 2007, , .		0
117	Preferential Order Waveguide Grating Couplers: Rigorous Analysis using Finite-Difference Time-Domain Methods. , 2008, , .		0
118	Semiconductor Ballistic Electron Reflection, Refraction, Interference, and Diffraction Effects: Modeling and Quantum Device Applications. , 1992, , .		0
119	Ballistic electron diffractive switches: design and performance analysis. , 1992, , .		0
120	Use of Classically Free Quasibound States for Infrared Emission. , 1994, , 511-524.		0