Khashayar Mehrany

List of Publications by Year
in descending order

83 papers	683 citations	567281 15 h-index	713466 21 g-index
83 all docs	83 docs citations	83 times ranked	449 citing authors

#	Article	IF	Citations
1	Recycling forward and backward frequency-multiplexed modes in a waveguide coupled to phased time-perturbed microrings for low-footprint neuromorphic computing. Optical Materials Express, 2022, 12, 1198.	3.0	1
2	Non-reciprocity using quadrature-phase time-varying slab resonators. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 88.	2.1	12
3	Optical isolation enabled by two time-modulated point perturbations in a ring resonator. Optics Express, 2020, 28, 16805.	3.4	10
4	Wideband and Narrowband Circuit Models for Fano-Shape Guided-Mode Resonance. IEEE Journal of Quantum Electronics, 2019, 55, 1-8.	1.9	2
5	Rigorous Derivation of Temporal Coupled Mode Theory Expressions for Travelling and Standing Wave Resonators Coupled to Optical Waveguides. , 2019, , .		1
6	Modeling of Periodic Array of Cut-Through Slits With Sinusoidal Surface Conductivity at the Interfaces of an Anisotropic Medium. IEEE Transactions on Antennas and Propagation, 2018, 66, 5630-5633.	5.1	1
7	DC to 40-GHz Compact Single-Layer Crossover. IEEE Microwave and Wireless Components Letters, 2018, 28, 642-644.	3.2	20
8	General solution to wave propagation in media undergoing arbitrary transient or periodic temporal variations of permittivity. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2923.	2.1	11
9	Effective medium theory for graphene-covered metallic gratings. Journal of Optics (United Kingdom), 2016, 18, 105005.	2.2	8
10	Sensitive and Accurate Dispersion Map Extraction of HNLFs by Frequency Tuning of a Degenerate FWM. Journal of Lightwave Technology, 2016, 34, 4197-4204.	4.6	1
11	Accurate effective medium theory for arrays of metallic nanowires. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.2	5
12	Corrections to â€œCircuit Model in Design of THz Transparent Electrodes Based on Two-Dimensional Arrays of Metallic Square Holesâ€• IEEE Transactions on Terahertz Science and Technology, 2015, 5, 655-656.	3.1	6
13	Understanding the Role of Slant Angle in Oblique Slit Arrays Made of Metal at Terahertz Frequencies. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 497-504.	3.1	3
14	Physics of broadband Brewster transmission through square array of rectangular metallic pillars. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1202.	2.1	5
15	Transmission enhancement of sharply bent nanoplasmonic slot waveguides. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 458.	2.1	3
16	Analysis and optimization of wideband tapered directional couplers by DTM method. Microwave and Optical Technology Letters, 2014, 56, 1795-1798.	1.4	0
17	Power evolution along phase-sensitive parametric amplifiers: an experimental survey. Optics Letters, 2014, 39, 6114.	3.3	4
18	Circuit Model in Design of THz Transparent Electrodes Based on Two-Dimensional Arrays of Metallic Square Holes. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 383-390.	3.1	7

#	Article	IF	Citations
19	Circuit Model for Periodic Array of Slits With Multiple Propagating Diffracted Orders. IEEE Transactions on Antennas and Propagation, 2014, 62, 4041-4048.	5.1	23
20	Multi-conductor transmission line networks in analysis of side-coupled metal–insulator–metal plasmonic structures. Optics Communications, 2014, 313, 375-381.	2.1	6
21	Diffraction Influence on the Field of View and Resolution of Three-Dimensional Integral Imaging. Journal of Display Technology, 2014, 10, 553-559.	1.2	3
22	A Circuit Model for Analysis of Metal–Insulator–Metal Plasmonic Complementary Split-Ring Resonators. Journal of Lightwave Technology, 2014, 32, 2659-2665.	4.6	10
23	Coupled Transmission Line Model for Planar Metal-Dielectric-Metal Plasmonic Structures: Inclusion of the First Non-Principal Mode. IEEE Journal of Quantum Electronics, 2013, 49, 777-784.	1.9	5
24	Easy-to-Design Nano-Coupler Between Metal–Insulator–Metal Plasmonic and Dielectric Slab Waveguides. Plasmonics, 2013, 8, 1123-1128.	3.4	8
25	Analysis and Design of Optical Demultiplexer Based on Arrayed Plasmonic Slot Cavities: Transmission Line Model. IEEE Photonics Technology Letters, 2013, 25, 784-786.	2.5	23
26	Circuit Model for Extraordinary Transmission Through Periodic Array of Subwavelength Stepped Slits. IEEE Transactions on Antennas and Propagation, 2013, 61, 2019-2024.	5.1	7
27	A heuristic approach to the realization of the wide-band optical diode effect in photonic crystal waveguides. Journal of Optics (United Kingdom), 2013, 15, 075501.	2.2	21
28	Approximate expressions for resonant shifts in the reflection of Gaussian wave packets from two-dimensional photonic crystal waveguides. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 683.	2.1	5
29	Circuit model for mode extraction in lossy/lossless photonic crystal waveguides. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 170.	2.1	7
30	Three-dimensional resolvability in an integral imaging system. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 525.	1.5	15
31	Determination of complex modes in photonic crystal waveguides using the phase variation in characteristic coefficients. Optics Letters, 2012, 37, 3078.	3.3	1
32	Transmission line model for extraction of transmission characteristics in photonic crystal waveguides with stubs: optical filter design. Optics Letters, 2012, 37, 1322.	3.3	8
33	Improved resolution three-dimensional integral imaging using optimized irregular lens-array structure. Applied Optics, 2012, 51, 6031.	1.8	6
34	Circuit model for efficient analysis and design of photonic crystal devices. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.2	7
35	Spatial Frequency Multiple Access Technique in Three-Dimensional Integral Imaging. Journal of Display Technology, 2012, 8, 138-144.	1.2	3
36	Fast and Efficient Analysis of Transmission Lines With Arbitrary Nonuniformities of Sub-Wavelength Scale. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2378-2384.	4.6	3

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37	A Distributed Circuit Model for Side-Coupled Nanoplasmonic Structures With Metal–Insulator–Metal Arrangement. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1692-1699.	2.9	23
38	An Efficient Circuit Model for the Analysis and Design of Rectangular Plasmonic Resonators. Plasmonics, 2012, 7, 245-252.	3.4	18
39	Creation of Artificial Surface Conductivity on Metallic Metamaterials. Journal of Lightwave Technology, 2012, 30, 1789-1794.	4.6	11
40	Analytical Model for the Extraction of Flaw-Induced Current Interactions for SQUID NDE. IEEE Transactions on Applied Superconductivity, 2011, 21, 3442-3446.	1.7	6
41	Optimization of the lens-array structure for performance improvement of integral imaging. Optics Letters, 2011, 36, 3993.	3.3	13
42	Enhanced Reflection in One-Dimensional Mostly-Hollow Metallic Gratings at Terahertz Frequencies. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 435-440.	3.1	3
43	Field of view extension using frequency division multiple access technique: numerical analysis. Proceedings of SPIE, 2011, , .	0.8	3
44	Analytical Approach in Finding the Semi-Optimum Hollow-Core Bragg Fiber With Minimum Loss. IEEE Journal of Quantum Electronics, 2011, 47, 552-560.	1.9	1
45	Circuit Model for Lamellar Metallic Gratings in the Sub-Wavelength Regime. IEEE Journal of Quantum Electronics, 2011, 47, 1330-1335.	1.9	17
46	Regularization of jump points in applying the adaptive spatial resolution technique. Optics Communications, 2011, 284, 3211-3215.	2.1	10
47	Analytical study of multiple access interference and beat noise in polarization-wavelength-time optical CDMA systems. , 2011, , .		1
48	Study of beam propagation in finite photonic crystals. , 2010, , .		0
49	Stochastic characterization of amplified photons in lightwave systems with optically bistable elements. , 2010, , .		1
50	Extension of Unified Formulation for the FDTD Simulation of Nonlinear Dispersive Media. IEEE Photonics Technology Letters, 2010, 22, 1214-1216.	2.5	4
51	Transmission line model for one-dimensional metallic grating in TE polarization. , 2010, , .		0
52	A Fast Optimization Method for Extension of Depth-of-Field in Three-Dimensional Task-Specific Imaging Systems. Journal of Display Technology, 2010, 6, 412-421.	1.2	5
53	Transmission-line model to design matching stage for light coupling into two-dimensional photonic crystals. Optics Letters, 2010, 35, 115.	3.3	12
54	Analytical expression of giant Goos–Hänchen shift in terms of proper and improper modes in waveguide structures with arbitrary refractive index profile. Optics Letters, 2010, 35, 1759.	3.3	6

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55	General noise considerations of amplified photons in lightwave systems with optically bistable elements. , 2010, , .		0
56	A transmission line model for extraction of defect modes in two-dimensional photonic crystals. , 2010, , .		1
57	Artifact-free analysis of highly conducting binary gratings by using the Legendre polynomial expansion method. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 1467.	1.5	1
58	Fast convergent and unconditionally stable Galerkin's method with adaptive Hermite-Gauss expansion for guided-mode extraction in two-dimensional photonic crystal based waveguides. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 169.	2.1	2
59	Adaptive Spatial Resolution in Fast, Efficient, and Stable Analysis of Metallic Lamellar Gratings at Microwave Frequencies. IEEE Transactions on Antennas and Propagation, 2009, 57, 1115-1121.	5.1	14
60	Generalized Differential Transfer Matrix for Fast and Efficient Analysis of Arbitrary-Shaped Nonlinear Distributed Feedback Structures. IEEE Journal of Quantum Electronics, 2009, 45, 125-131.	1.9	0
61	Study of the numerical artifacts in differential analysis of highly conducting gratings. Optics Letters, 2008, 33, 159.	3.3	7
62	Geometrical approach in physical understanding of the Goos-Haenchen shift in one- and two-dimensional periodic structures. Optics Letters, 2008, 33, 2940.	3.3	22
63	Longitudinal Legendre polynomial expansion of electromagnetic fields for analysis of arbitrary-shaped gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 1564.	1.5	18
64	Plasmonic propagation modes of a structured two-dimensional conducting interface. Journal of Optics, 2008, 10, 025202.	1.5	8
65	Modified WKB method for solution of wave propagation in inhomogeneous structures with arbitrary permittivity and permeability profiles. , 2007, , .		0
66	Three-dimensional diffraction analysis of gratings based on Legendre expansion of electromagnetic fields. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 2676.	2.1	10
67	Modified WKB method for solution of wave propagation in inhomogeneous structures with arbitrary permittivity and permeability profiles. , 2007, , .		3
68	Tight-Binding Analysis of Coupled Dielectric Waveguide Structures. Fiber and Integrated Optics, 2006, 25, 11-27.	2.5	2
69	Analytical Approach for Analysis of Nonuniform Lossy/Lossless Transmission Lines and Tapered Microstrips. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 4122-4129.	4.6	18
70	Asymptotic behaviour of a subwavelength nanoconducting layer. Journal of Optics, 2006, 8, 639-646.	1.5	3
71	Forbidden Spatial Frequencies in Periodic Structures Composed of Subwavelength Nano Conducting Layers. , 2006, , .		0
72	Coupled Surface Electromagnetic Waves Supported by Subwavelength Nano Conducting Layers. , 2006, , .		0

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73	Modified differential-transfer-matrix method for solution of one-dimensional linear inhomogeneous optical structures. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1521.	2.1	34
74	Band structures of coupled electromagnetic slow waves. Journal of Optics, 2004, 6, 937-942.	1.5	5
75	Novel optical slow wave structure and surface electromagnetic wave coupler with conducting interfaces. Semiconductor Science and Technology, 2004, 19, 890-896.	2.0	9
76	Differential transfer-matrix method for solution of one-dimensional linear nonhomogeneous optical structures. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 91.	2.1	41
77	Polynomial expansion for extraction of electromagnetic eigenmodes in layered structures. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 2434.	2.1	19
78	Novel optical devices based on surface wave excitation at conducting interfaces. Semiconductor Science and Technology, 2003, 18, 582-588.	2.0	23
79	Interface electromagnetic waves between Kronig-Penney photonic crystals. , 2003, , .		5
80	Surface electromagnetic waves on dielectrics with conducting interfaces. , 2003, , .		5
81	Analytical solution of non-homogeneous anisotropic wave equations based on differential transfer matrices. Journal of Optics, 2002, 4, 624-635.	1.5	25
82	Surface wave excitation control by using interface conductivity on one-dimensional photonic crystals. , 2002, , .		4
83	Variational approach for extraction of eigenmodes in layered waveguides. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 1978.	2.1	9