

Thomas SÃ¸ndergaard

List of Publications by Year in descending order

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96
papers

3,472
citations

159358

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143772

57
g-index

98
all docs

98
docs citations

98
times ranked

3176
citing authors

#	ARTICLE	IF	CITATIONS
1	A generalized non-local optical response theory for plasmonic nanostructures. Nature Communications, 2014, 5, 3809.	5.8	421
2	Plasmonic black gold by adiabatic nanofocusing and absorption of light in ultra-sharp convex grooves. Nature Communications, 2012, 3, 969.	5.8	274
3	General properties of slow-plasmon resonant nanostructures: nano-antennas and resonators. Optics Express, 2007, 15, 10869.	1.7	227
4	Analysis of air-guiding photonic bandgap fibers. Optics Letters, 2000, 25, 96.	1.7	184
5	Slow-plasmon resonant nanostructures: Scattering and field enhancements. Physical Review B, 2007, 75, .	1.1	100
6	Gap plasmon-polariton nanoresonators: Scattering enhancement and launching of surface plasmon polaritons. Physical Review B, 2009, 79, .	1.1	91
7	Extraordinary Optical Transmission Enhanced by Nanofocusing. Nano Letters, 2010, 10, 3123-3128.	4.5	89
8	Resonant Plasmon Nanofocusing by Closed Tapered Gaps. Nano Letters, 2010, 10, 291-295.	4.5	79
9	Surface plasmon polariton scattering by a small particle placed near a metal surface: An analytical study. Physical Review B, 2004, 69, .	1.1	78
10	Theoretical analysis of square surface plasmon-polariton waveguides for long-range polarization-independent waveguiding. Physical Review B, 2007, 76, .	1.1	77
11	Near-field imaging of light propagation in photonic crystal waveguides: Explicit role of Bloch harmonics. Physical Review B, 2002, 66, .	1.1	73
12	General theory for spontaneous emission in active dielectric microstructures: Example of a fiber amplifier. Physical Review A, 2001, 64, .	1.0	72
13	Modeling of plasmonic nanostructures: Green's function integral equation methods. Physica Status Solidi (B): Basic Research, 2007, 244, 3448-3462.	0.7	72
14	Energy flow in photonic crystal waveguides. Physical Review B, 2000, 61, 15688-15696.	1.1	70
15	Low-loss silicon-on-insulator photonic crystal waveguides. Electronics Letters, 2002, 38, 274.	0.5	66
16	Strip and gap plasmon polariton optical resonators. Physica Status Solidi (B): Basic Research, 2008, 245, 9-19.	0.7	66
17	Plasmon-polariton nano-strip resonators: from visible to infra-red. Optics Express, 2008, 16, 6867.	1.7	62
18	Vectorial model for multiple scattering by surface nanoparticles via surface polariton-to-polariton interactions. Physical Review B, 2003, 67, .	1.1	60

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19	Slow-plasmon resonant-nanostrip antennas: Analysis and demonstration. <i>Physical Review B</i> , 2008, 77, .	1.1	60
20	Waveguidance by the photonic bandgap effect in optical fibres. <i>Journal of Optics</i> , 1999, 1, 477-482.	1.5	55
21	Compact Z-add-drop wavelength filters for long-range surface plasmon polaritons. <i>Optics Express</i> , 2005, 13, 4237.	1.7	55
22	Metal nano-strip optical resonators. <i>Optics Express</i> , 2007, 15, 4198.	1.7	54
23	Theoretical analysis of gold nano-strip gap plasmon resonators. <i>New Journal of Physics</i> , 2008, 10, 105008.	1.2	54
24	Photonic bandgap structures for long-range surface plasmon polaritons. <i>Optics Communications</i> , 2005, 250, 328-333.	1.0	51
25	Surface-plasmon polariton resonances in triangular-groove metal gratings. <i>Physical Review B</i> , 2009, 80, .	1.1	45
26	Theoretical analysis of ridge gratings for long-range surface plasmon polaritons. <i>Physical Review B</i> , 2006, 73, .	1.1	43
27	Plasmonic metasurfaces for waveguiding and field enhancement. <i>Laser and Photonics Reviews</i> , 2009, 3, 575-590.	4.4	43
28	Green's function surface integral equation method for theoretical analysis of scatterers close to a metal interface. <i>Physical Review B</i> , 2008, 77, .	1.1	40
29	Field enhancement and extraordinary optical transmission by tapered periodic slits in gold films. <i>New Journal of Physics</i> , 2011, 13, 063029.	1.2	36
30	Design and optimization of spectral beamsplitter for hybrid thermoelectric-photovoltaic concentrated solar energy devices. <i>Solar Energy</i> , 2016, 139, 149-156.	2.9	35
31	Two-dimensional Kagome structure, fundamental hexagonal photonic crystal configuration. <i>Electronics Letters</i> , 1999, 35, 1736.	0.5	30
32	Plasmonic black metals by broadband light absorption in ultra-sharp convex grooves. <i>New Journal of Physics</i> , 2013, 15, 073007.	1.2	30
33	Pore size dependence of diffuse light scattering from anodized aluminum solar cell backside reflectors. <i>Optics Express</i> , 2013, 21, A84.	1.7	30
34	Extraordinary optical transmission with tapered slits: effect of higher diffraction and slit resonance orders. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 130.	0.9	27
35	Direct mapping of light propagation in photonic crystal waveguides. <i>Optics Communications</i> , 2002, 212, 51-55.	1.0	25
36	Two-photon mapping of localized field enhancements in thin nanostrip antennas. <i>Optics Express</i> , 2008, 16, 17302.	1.7	25

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37	Large-bandwidth planar photonic crystal waveguides. <i>Optics Communications</i> , 2002, 203, 263-270.	1.0	24
38	Theoretical analysis of plasmonic black gold: periodic arrays of ultra-sharp grooves. <i>New Journal of Physics</i> , 2013, 15, 013034.	1.2	24
39	Theoretical analysis of finite-size surface plasmon polariton band-gap structures. <i>Physical Review B</i> , 2005, 71, .	1.1	22
40	Quantum spill-out in few-nanometer metal gaps: Effect on gap plasmons and reflectance from ultrasharp groove arrays. <i>Physical Review B</i> , 2018, 97, .	1.1	22
41	Theoretical analysis of finite-height semiconductor-on-insulator-based planar photonic crystal waveguides. <i>Journal of Lightwave Technology</i> , 2002, 20, 1619-1626.	2.7	21
42	Reliability of point source approximations in compact LED lens designs. <i>Optics Express</i> , 2011, 19, A1190.	1.7	21
43	Suppression of spontaneous emission for a two-dimensional honeycomb photonic bandgap structure estimated using a new effective-index model. <i>IEEE Journal of Quantum Electronics</i> , 1998, 34, 2308-2313.	1.0	19
44	Photonic crystal distributed feedback fiber lasers with Bragg gratings. <i>Journal of Lightwave Technology</i> , 2000, 18, 589-597.	2.7	19
45	Modeling of a surface plasmon polariton interferometer. <i>Optics Communications</i> , 2004, 240, 345-350.	1.0	18
46	Dyadic Green's functions of thin films: Applications within plasmonic solar cells. <i>Physical Review B</i> , 2011, 83, .	1.1	18
47	Optimization of TiAlN/TiAlON/Si3N4 solar absorber coatings. <i>Solar Energy</i> , 2015, 118, 410-418.	2.9	17
48	Efficient suppression of radiation damping in resonant retardation-based plasmonic structures. <i>Physical Review B</i> , 2009, 79, .	1.1	16
49	Designing finite-height photonic crystal waveguides: confinement of light and dispersion relations. <i>Optics Communications</i> , 2001, 194, 341-351.	1.0	15
50	Lippmann-Schwinger integral equation approach to the emission of radiation by sources located inside finite-sized dielectric structures. <i>Physical Review B</i> , 2002, 66, .	1.1	15
51	Electrostatic plasmon resonances of metal nanospheres in layered geometries. <i>Physical Review B</i> , 2010, 81, .	1.1	15
52	Propagation of long-range surface plasmon polaritons in photonic crystals. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 2027.	0.9	14
53	Localized field enhancements in two-dimensional V-groove metal arrays. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 372.	0.9	14
54	Surface plasmon polariton generation by light scattering off aligned organic nanofibers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 249.	0.9	14

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55	High- Q plasmonic resonators based on metal split nanocylinders. Physical Review B, 2009, 80, .	1.1	13
56	Green's function approach to investigate the excitation of surface plasmon polaritons in a nanometer-thin metal film. Physical Review B, 2012, 85, .	1.1	12
57	Light extinction and scattering from individual and arrayed high-aspect-ratio trenches in metals. Physical Review B, 2016, 93, .	1.1	12
58	Adiabatic bends in surface plasmon polariton band gap structures. Optics Express, 2006, 14, 4107.	1.7	11
59	On localized surface plasmons of metallic tin nanoparticles in silicon. Physica Status Solidi - Rapid Research Letters, 2010, 4, 292-294.	1.2	11
60	Local excitation of surface plasmon polaritons by second-harmonic generation in crystalline organic nanofibers. Optics Express, 2012, 20, 16715.	1.7	11
61	Coupling light into and out from the surface plasmon polaritons of a nanometer-thin metal film with a metal nanostrip. Physical Review B, 2012, 86, .	1.1	11
62	Surface plasmon polariton excitation by second harmonic generation in single organic nanofibers. Optics Express, 2015, 23, 16356.	1.7	11
63	Optical transmission through two-dimensional arrays of Sn nanoparticles. Physical Review B, 2011, 84, .	1.1	10
64	Polarization properties of honeycomb-structured photonic bandgap fibres. Journal of Optics, 2000, 2, 584-588.	1.5	9
65	Guidelines for 1D-periodic surface microstructures for antireflective lenses. Optics Express, 2010, 18, 26245.	1.7	9
66	Compact lens with circular spot profile for square die LEDs in multi-LED projectors. Applied Optics, 2011, 50, 4860.	2.1	9
67	Plasmonic black gold based broadband polarizers for ultra-short laser pulses. Applied Physics Letters, 2013, 103, 211102.	1.5	9
68	Microstructured gradient-index lenses for THz photoconductive antennas. AIP Advances, 2016, 6, .	0.6	9
69	Spontaneous emission in two-dimensional photonic crystal microcavities. IEEE Journal of Quantum Electronics, 2000, 36, 450-457.	1.0	8
70	Two-dimensional Kagome photonic bandgap waveguide. IEEE Photonics Technology Letters, 2000, 12, 630-632.	1.3	8
71	Theoretical analysis and experimental demonstration of resonant light scattering from metal nanostrips on quartz. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 121.	0.9	7
72	Nanoparticle plasmon resonances in the near-static limit. Optics Letters, 2011, 36, 713.	1.7	7

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73	Optics of multiple ultrasharp grooves in metal. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 673.	0.9	7
74	Light trapping in guided modes of thin-film silicon-on-silver waveguides by scattering from a nanostrip. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2036.	0.9	6
75	Rapid fabrication and trimming of nanostructured backside reflectors for enhanced optical absorption in a-Si:H solar cells. Applied Physics A: Materials Science and Processing, 2015, 120, 417-425.	1.1	6
76	Optics of a single ultrasharp groove in metal. Optics Letters, 2016, 41, 2903.	1.7	6
77	Modeling the reflectivity of plasmonic ultrasharp groove arrays: general direction of light incidence. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 1853.	0.9	5
78	Theoretical analysis of surface-plasmon-polariton resonators in free space and close to an interface. Proceedings of SPIE, 2008, , .	0.8	4
79	Optics of multiple grooves in metal: transition from high scattering to strong absorption. Journal of Nanophotonics, 2017, 11, 1.	0.4	4
80	Theoretical analysis of compact cylindrical microlenses for terahertz photoconductive antennas in the photomixer regime. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1109.	0.9	4
81	Out-of-plane scattering properties of long-range surface plasmon polariton gratings. Physica Status Solidi (B): Basic Research, 2005, 242, 3064-3069.	0.7	3
82	Fabrication of plasmonic waveguides for device applications. , 2007, , .		3
83	Two-photon imaging of field enhancement by groups of gold nanostrip antennas. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 2199.	0.9	3
84	High-output LED-based light engine for profile lighting fixtures with high color uniformity using freeform reflectors. Applied Optics, 2016, 55, 1356.	2.1	3
85	Near fields and far fields generated by sources in the presence of dielectric structures with cylindrical symmetry. Optics Letters, 2001, 26, 1705.	1.7	2
86	NANOPLASMONICS: COMPONENTS, DEVICES, AND CIRCUITS. , 0, , 405-438.		2
87	Slow-light plasmonic metal nano-strip resonators. , 2008, , .		1
88	All-dielectric one-dimensional gratings exhibiting Fano resonances in the terahertz region. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 1723.	0.9	1
89	Modeling of a Surface Plasmon Polariton Interferometer. Materials Research Society Symposia Proceedings, 2003, 797, 37.	0.1	0
90	SURFACE PLASMON POLARITON GUIDING IN PHOTONIC BANDGAP STRUCTURES. , 2007, , 73-86.		0

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91	Electrostatic plasmon resonances of metal nanoparticles in stratified geometries. , 2010, , .		0
92	Optical resonances and nanofocusing in triangular metal nano-grooves. Proceedings of SPIE, 2010, , .	0.8	0
93	Light trapping in thin-film solar cells: the role of guided modes. , 2014, , .		0
94	Plasmonic black metal polarizers for ultra-short laser pulses. Proceedings of SPIE, 2014, , .	0.8	0
95	Green's function integral equation methods for modeling of optical devices. , 2020, , .		0
96	Plasmonic black gold and black metals. , 2012, , .		0