Mario Hentschel

List of Publications by Year
in descending order

84 papers	9,416 citations	100601 38 h-index	71088 80 g-index
85 all docs	85 docs citations	85 times ranked	11050 citing authors

#	Article	IF	Citations
1	Fabrication and nanophotonic waveguide integration of silicon carbide colour centres with preserved spin-optical coherence. Nature Materials, 2022, 21, 67-73.	13.3	80
2	Machine Learning Methods of Regression for Plasmonic Nanoantenna Glucose Sensing. Sensors, 2022, 22, 7.	2.1	7
3	Watching In Situ the Hydrogen Diffusion Dynamics in Magnesium on the Nanoscale. , 2021, , .		0
4	Interaction of edge exciton polaritons with engineered defects in the hyperbolic material Bi2Se3. Communications Materials, 2021, 2, .	2.9	13
5	SEIRA Sensing of Different Sugars at Physiological Concentrations. , 2021, , .		0
6	Liquid Hydrogenation of Plasmonic Nanoantennas via Alcohol Deprotonation. ACS Photonics, 2021, 8, 1810-1816.	3.2	2
7	Plasmonic Metasurface Resonators to Enhance Terahertz Magnetic Fields for Highâ€Frequency Electron Paramagnetic Resonance. Small Methods, 2021, 5, e2100376.	4.6	3
8	Electrically Switchable Metasurface for Beam Steering Using PEDOT Polymers. , 2021, , .		1
9	Electrically switchable metallic polymer nanoantennas. Science, 2021, 374, 612-616.	6.0	86
10	Electrons Generate Self-Complementary Broadband Vortex Light Beams Using Chiral Photon Sieves. Nano Letters, 2020, 20, 5975-5981.	4.5	18
11	Watching in situ the hydrogen diffusion dynamics in magnesium on the nanoscale. Science Advances, 2020, 6, eaaz0566.	4.7	33
12	Tailored Optical Functionality by Combining Electronâ€Beam and Focused Goldâ€Ion Beam Lithography for Solid and Inverse Coupled Plasmonic Nanostructures. Advanced Optical Materials, 2020, 8, 2000879.	3.6	10
13	Reconfigurable Plasmonic Chirality: Fundamentals and Applications. Advanced Materials, 2020, 32, e1905640.	11.1	63
14	Switchable Optical Nonlinearity at the Metal to Insulator Transition in Magnesium Thin Films. ACS Photonics, 2020, 7, 1560-1568.	3.2	2
15	Electrically switchable metasurface for beam steering using PEDOT polymers. Journal of Optics (United Kingdom), 2020, 22, 124001.	1.0	15
16	Mass-producible micro-optical elements by injection compression molding and focused ion beam structured titanium molding tools. Optics Letters, 2020, 45, 1184.	1.7	6
17	Optimizing magnesium thin films for optical switching applications: rules and recipes. Optical Materials Express, 2020, 10, 1346.	1.6	11
18	Optical properties of niobium nitride plasmonic nanoantennas for the near- and mid-infrared spectral range. Optical Materials Express, 2020, 10, 2597.	1.6	12

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19	Electron-driven photon sources for correlative electron-photon spectroscopy with electron microscopes. Nanophotonics, 2020, 9, 4381-4406.	2.9	22
20	In Vitro Monitoring Conformational Changes of Polypeptide Monolayers Using Infrared Plasmonic Nanoantennas. Nano Letters, 2019, 19, 1-7.	4.5	45
21	Adaptive Method for Quantitative Estimation of Glucose and Fructose Concentrations in Aqueous Solutions Based on Infrared Nanoantenna Optics. Sensors, 2019, 19, 3053.	2.1	8
22	Chiral Scatterometry on Chemically Synthesized Single Plasmonic Nanoparticles. ACS Nano, 2019, 13, 8659-8668.	7.3	69
23	Vibrational Sensing Using Infrared Nanoantennas: Toward the Noninvasive Quantitation of Physiological Levels of Glucose and Fructose. ACS Sensors, 2019, 4, 1973-1979.	4.0	45
24	Nonlinear Spectroscopy on the Plasmonic Analog of Electromagnetically Induced Absorption: Revealing Minute Structural Asymmetries. ACS Photonics, 2019, 6, 2850-2859.	3.2	8
25	Purcell-Enhanced Spontaneous Emission of Molecular Vibrations. Physical Review Letters, 2019, 123, 153001.	2.9	28
26	Pushing Down the Limit: In Vitro Detection of a Polypeptide Monolayer on a Single Infrared Resonant Nanoantenna. ACS Photonics, 2019, 6, 2636-2642.	3.2	20
27	Ultrasensitive Tip- and Antenna-Enhanced Infrared Nanoscopy of Protein Complexes. Journal of Physical Chemistry C, 2019, 123, 17505-17509.	1.5	20
28	Resonant Plasmonic Nanoslits Enable in Vitro Observation of Single-Monolayer Collagen-Peptide Dynamics. ACS Sensors, 2019, 4, 1966-1972.	4.0	16
29	Chiral Plasmonic Nanostructures Enabled by Bottom-Up Approaches. Annual Review of Physical Chemistry, 2019, 70, 275-299.	4.8	106
30	Merging transformation optics with electron-driven photon sources. Nature Communications, 2019, 10, 599.	5.8	31
31	Observation of Uncompensated Bound Charges at Improper Ferroelectric Domain Walls. Nano Letters, 2019, 19, 1659-1664.	4.5	28
32	Nonlinear Born-Kuhn Analog for Chiral Plasmonics. ACS Photonics, 2019, 6, 3306-3314.	3.2	25
33	Utilizing niobium plasmonic perfect absorbers for tunable near- and mid-IR photodetection. Optics Express, 2019, 27, 25012.	1.7	16
34	Tunable green lasing from circular grating distributed feedback based on CH₃NH₃PbBr₃ perovskite. Optical Materials Express, 2019, 9, 2006.	1.6	16
35	Comprehensive Study of Plasmonic Materials in the Visible and Near-Infrared: Linear, Refractory, and Nonlinear Optical Properties. ACS Photonics, 2018, 5, 1058-1067.	3.2	56
36	Hybrid Lithographic and DNA-Directed Assembly of a Configurable Plasmonic Metamaterial That Exhibits Electromagnetically Induced Transparency. Nano Letters, 2018, 18, 859-864.	4.5	24

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37	Highly Sensitive Refractive Index Sensors with Plasmonic Nanoantennasâ˘Utilization of Optimal Spectral Detuning of Fano Resonances. ACS Sensors, 2018, 3, 960-966.	4.0	47
38	Wavelength-Dependent Third-Harmonic Generation in Plasmonic Gold Nanoantennas: Quantitative Determination of the d-Band Influence. ACS Photonics, 2018, 5, 1863-1870.	3.2	16
39	Single Plasmonic Oligomer Chiral Spectroscopy. Advanced Optical Materials, 2018, 6, 1800087.	3.6	29
40	Probing the Near-Field of Second-Harmonic Light around Plasmonic Nanoantennas. Nano Letters, 2017, 17, 1931-1937.	4.5	34
41	Nanoantenna-Enhanced Infrared Spectroscopic Chemical Imaging. ACS Sensors, 2017, 2, 655-662.	4.0	19
42	Chiral plasmonics. Science Advances, 2017, 3, e1602735.	4.7	583
43	Hybrid Organic-Plasmonic Nanoantennas with Enhanced Third-Harmonic Generation. ACS Omega, 2017, 2, 2577-2582.	1.6	9
44	Wavelength Scaling in Antenna-Enhanced Infrared Spectroscopy: Toward the Far-IR and THz Region. ACS Photonics, 2017, 4, 45-51.	3.2	28
45	Refractory Plasmonics without Refractory Materials. Nano Letters, 2017, 17, 6402-6408.	4.5	52
46	Plasmonic Analog of Electromagnetically Induced Absorption Leads to Giant Thin Film Faraday Rotation of 14Â°. Physical Review X, 2017, 7, .	2.8	33
47	Linear and nonlinear optical properties of hybrid metallicâ€“dielectric plasmonic nanoantennas. Beilstein Journal of Nanotechnology, 2016, 7, 111-120.	1.5	30
48	Nonlinear Plasmonic Sensing. Nano Letters, 2016, 16, 3155-3159.	4.5	150
49	The optimal antenna for nonlinear spectroscopy of weakly and strongly scattering nanoobjects. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	4
50	Ultrafast Nonlinear Plasmonic Spectroscopy: From Dipole Nanoantennas to Complex Hybrid Plasmonic Structures. ACS Photonics, 2016, 3, 1336-1350.	3.2	38
51	Nonlinear Refractory Plasmonics with Titanium Nitride Nanoantennas. Nano Letters, 2016, 16, 5708-5713.	4.5	115
52	Nonlinear optics of complex plasmonic structures: linear and third-order optical response of orthogonally coupled metallic nanoantennas. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	16
53	Strong Enhancement of Second Harmonic Emission by Plasmonic Resonances at the Second Harmonic Wavelength. Nano Letters, 2015, 15, 3917-3922.	4.5	122
54	Optical Rotation Reversal in the Optical Response of Chiral Plasmonic Nanosystems: The Role of Plasmon Hybridization. ACS Photonics, 2015, 2, 1253-1259.	3.2	59

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55	Circular Dichroism in Off-Resonantly Coupled Plasmonic Nanosystems. Nano Letters, 2015, 15, 8336-8341.	4.5	40
56	Nonlinear Plasmon Optics. Nano-optics and Nanophotonics, 2015, , 155-181.	0.2	2
57	Doubling the Efficiency of Third Harmonic Generation by Positioning ITO Nanocrystals into the Hot-Spot of Plasmonic Gap-Antennas. Nano Letters, 2014, 14, 2867-2872.	4.5	155
58	Near- and Far-Field Properties of Plasmonic Oligomers under Radially and Azimuthally Polarized Light Excitation. ACS Nano, 2014, 8, 4969-4974.	7.3	47
59	Spatial Extent of Plasmonic Enhancement of Vibrational Signals in the Infrared. ACS Nano, 2014, 8, 6250-6258.	7.3	68
60	Third Harmonic Mechanism in Complex Plasmonic Fano Structures. ACS Photonics, 2014, 1, 471-476.	3.2	106
61	Au Nanotip as Luminescent Near-Field Probe. Nano Letters, 2013, 13, 3566-3570.	4.5	21
62	Plasmonic Diastereomers: Adding up Chiral Centers. Nano Letters, 2013, 13, 600-606.	4.5	88
63	Babinet to the Half: Coupling of Solid and Inverse Plasmonic Structures. Nano Letters, 2013, 13, 4428-4433.	4.5	92
64	Plasmonic analog of electromagnetically induced absorption: simulations, experiments, and coupled oscillator analysis. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 3123.	0.9	71
65	Plasmonic oligomers in cylindrical vector light beams. Beilstein Journal of Nanotechnology, 2013, 4, 57-65.	1.5	16
66	Third-harmonic spectroscopy and modeling of the nonlinear response of plasmonic nanoantennas. Optics Letters, 2012, 37, 4741.	1.7	69
67	Tailoring Enhanced Optical Chirality: Design Principles for Chiral Plasmonic Nanostructures. Physical Review X, 2012, 2, .	2.8	227
68	Analytical Model of the Three-Dimensional Plasmonic Ruler. ACS Nano, 2012, 6, 1291-1298.	7.3	43
69	Quantitative Modeling of the Third Harmonic Emission Spectrum of Plasmonic Nanoantennas. Nano Letters, 2012, 12, 3778-3782.	4.5	154
70	Optical Properties of Chiral Three-Dimensional Plasmonic Oligomers at the Onset of Charge-Transfer Plasmons. ACS Nano, 2012, 6, 10355-10365.	7.3	103
71	Three-Dimensional Chiral Plasmonic Oligomers. Nano Letters, 2012, 12, 2542-2547.	4.5	342
72	Resonant multimeanderâ€metasurfaces: A model system for superlenses and communication devices. Physica Status Solidi (B): Basic Research, 2012, 249, 1415-1421.	0.7	4

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73	Plasmonic antennas, positioning, and coupling of individual quantum systems. Physica Status Solidi (B): Basic Research, 2012, 249, 666-677.	0.7	15
74	Classical Analog of Electromagnetically Induced Absorption in Plasmonics. Nano Letters, 2012, 12, 1367-1371.	4.5	235
75	Excitation and Tuning of Higher-Order Fano Resonances in Plasmonic Oligomer Clusters. ACS Nano, 2011, 5, 8202-8211.	7.3	130
76	Plasmonic Oligomers: The Role of Individual Particles in Collective Behavior. ACS Nano, 2011, 5, 2042-2050.	7.3	255
77	Three-Dimensional Plasmon Rulers. Science, 2011, 332, 1407-1410.	6.0	522
78	Nanoantenna-enhanced gas sensing in a single tailored nanofocus. Nature Materials, 2011, 10, 631-636.	13.3	863
79	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single gold nanoparticle. Nature Communications, 2011, 2, .	5.8	118
80	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single plasmonic nanodisc. , 2011, , .		0
81	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single plasmonic nanodisc. , 2011, , .		0
82	Infrared Perfect Absorber and Its Application As Plasmonic Sensor. Nano Letters, 2010, 10, 2342-2348.	4.5	2,513
83	Cavity-enhanced localized plasmon resonance sensing. Applied Physics Letters, 2010, 97, .	1.5	242
84	Transition from Isolated to Collective Modes in Plasmonic Oligomers. Nano Letters, 2010, 10, 2721-2726.	4.5	544