Mario Hentschel

List of Publications by Year
in descending order

84	9,416	87888 38	62596 80
papers	citations	h-index	g-index

85	85	85	9454
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Infrared Perfect Absorber and Its Application As Plasmonic Sensor. Nano Letters, 2010, 10, 2342-2348.	9.1	2,513
2	Nanoantenna-enhanced gas sensing in a single tailored nanofocus. Nature Materials, 2011, 10, 631-636.	27.5	863
3	Chiral plasmonics. Science Advances, 2017, 3, e1602735.	10.3	583
4	Transition from Isolated to Collective Modes in Plasmonic Oligomers. Nano Letters, 2010, 10, 2721-2726.	9.1	544
5	Three-Dimensional Plasmon Rulers. Science, 2011, 332, 1407-1410.	12.6	522
6	Three-Dimensional Chiral Plasmonic Oligomers. Nano Letters, 2012, 12, 2542-2547.	9.1	342
7	Plasmonic Oligomers: The Role of Individual Particles in Collective Behavior. ACS Nano, 2011, 5, 2042-2050.	14.6	255
8	Cavity-enhanced localized plasmon resonance sensing. Applied Physics Letters, 2010, 97, .	3.3	242
9	Classical Analog of Electromagnetically Induced Absorption in Plasmonics. Nano Letters, 2012, 12, 1367-1371.	9.1	235
10	Tailoring Enhanced Optical Chirality: Design Principles for Chiral Plasmonic Nanostructures. Physical Review X, 2012, 2, .	8.9	227
11	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.	9.1	155
12	Quantitative Modeling of the Third Harmonic Emission Spectrum of Plasmonic Nanoantennas. Nano Letters, 2012, 12, 3778-3782.	9.1	154
13	Nonlinear Plasmonic Sensing. Nano Letters, 2016, 16, 3155-3159.	9.1	150
14	Excitation and Tuning of Higher-Order Fano Resonances in Plasmonic Oligomer Clusters. ACS Nano, 2011, 5, 8202-8211.	14.6	130
15	Strong Enhancement of Second Harmonic Emission by Plasmonic Resonances at the Second Harmonic Wavelength. Nano Letters, 2015, 15, 3917-3922.	9.1	122
16	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single gold nanoparticle. Nature Communications, 2011, 2, .	12.8	118
17	Nonlinear Refractory Plasmonics with Titanium Nitride Nanoantennas. Nano Letters, 2016, 16, 5708-5713.	9.1	115
18	Third Harmonic Mechanism in Complex Plasmonic Fano Structures. ACS Photonics, 2014, 1, 471-476.	6.6	106

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19	Chiral Plasmonic Nanostructures Enabled by Bottom-Up Approaches. Annual Review of Physical Chemistry, 2019, 70, 275-299.	10.8	106
20	Optical Properties of Chiral Three-Dimensional Plasmonic Oligomers at the Onset of Charge-Transfer Plasmons. ACS Nano, 2012, 6, 10355-10365.	14.6	103
21	Babinet to the Half: Coupling of Solid and Inverse Plasmonic Structures. Nano Letters, 2013, 13, 4428-4433.	9.1	92
22	Plasmonic Diastereomers: Adding up Chiral Centers. Nano Letters, 2013, 13, 600-606.	9.1	88
23	Electrically switchable metallic polymer nanoantennas. Science, 2021, 374, 612-616.	12.6	86
24	Fabrication and nanophotonic waveguide integration of silicon carbide colour centres with preserved spin-optical coherence. Nature Materials, 2022, 21, 67-73.	27.5	80
25	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.	2.1	71
26	Third-harmonic spectroscopy and modeling of the nonlinear response of plasmonic nanoantennas. Optics Letters, 2012, 37, 4741.	3.3	69
27	Chiral Scatterometry on Chemically Synthesized Single Plasmonic Nanoparticles. ACS Nano, 2019, 13, 8659-8668.	14.6	69
28	Spatial Extent of Plasmonic Enhancement of Vibrational Signals in the Infrared. ACS Nano, 2014, 8, 6250-6258.	14.6	68
29	Reconfigurable Plasmonic Chirality: Fundamentals and Applications. Advanced Materials, 2020, 32, e1905640.	21.0	63
30	Optical Rotation Reversal in the Optical Response of Chiral Plasmonic Nanosystems: The Role of Plasmon Hybridization. ACS Photonics, 2015, 2, 1253-1259.	6.6	59
31	Comprehensive Study of Plasmonic Materials in the Visible and Near-Infrared: Linear, Refractory, and Nonlinear Optical Properties. ACS Photonics, 2018, 5, 1058-1067.	6.6	56
32	Refractory Plasmonics without Refractory Materials. Nano Letters, 2017, 17, 6402-6408.	9.1	52
33	Near- and Far-Field Properties of Plasmonic Oligomers under Radially and Azimuthally Polarized Light Excitation. ACS Nano, 2014, 8, 4969-4974.	14.6	47
34	Highly Sensitive Refractive Index Sensors with Plasmonic Nanoantennasâ˘Utilization of Optimal Spectral Detuning of Fano Resonances. ACS Sensors, 2018, 3, 960-966.	7.8	47
35	In Vitro Monitoring Conformational Changes of Polypeptide Monolayers Using Infrared Plasmonic Nanoantennas. Nano Letters, 2019, 19, 1-7.	9.1	45
36	Vibrational Sensing Using Infrared Nanoantennas: Toward the Noninvasive Quantitation of Physiological Levels of Glucose and Fructose. ACS Sensors, 2019, 4, 1973-1979.	7.8	45

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37	Analytical Model of the Three-Dimensional Plasmonic Ruler. ACS Nano, 2012, 6, 1291-1298.	14.6	43
38	Circular Dichroism in Off-Resonantly Coupled Plasmonic Nanosystems. Nano Letters, 2015, 15, 8336-8341.	9.1	40
39	Ultrafast Nonlinear Plasmonic Spectroscopy: From Dipole Nanoantennas to Complex Hybrid Plasmonic Structures. ACS Photonics, 2016, 3, 1336-1350.	6.6	38
40	Probing the Near-Field of Second-Harmonic Light around Plasmonic Nanoantennas. Nano Letters, 2017, 17, 1931-1937.	9.1	34
41	Plasmonic Analog of Electromagnetically Induced Absorption Leads to Giant Thin Film Faraday Rotation of 14Â°. Physical Review X, 2017, 7, .	8.9	33
42	Watching in situ the hydrogen diffusion dynamics in magnesium on the nanoscale. Science Advances, 2020, 6, eaaz0566.	10.3	33
43	Merging transformation optics with electron-driven photon sources. Nature Communications, 2019, 10, 599.	12.8	31
44	Linear and nonlinear optical properties of hybrid metallicâ€“dielectric plasmonic nanoantennas. Beilstein Journal of Nanotechnology, 2016, 7, 111-120.	2.8	30
45	Single Plasmonic Oligomer Chiral Spectroscopy. Advanced Optical Materials, 2018, 6, 1800087.	7.3	29
46	Wavelength Scaling in Antenna-Enhanced Infrared Spectroscopy: Toward the Far-IR and THz Region. ACS Photonics, 2017, 4, 45-51.	6.6	28
47	Purcell-Enhanced Spontaneous Emission of Molecular Vibrations. Physical Review Letters, 2019, 123, 153001.	7.8	28
48	Observation of Uncompensated Bound Charges at Improper Ferroelectric Domain Walls. Nano Letters, 2019, 19, 1659-1664.	9.1	28
49	Nonlinear Born-Kuhn Analog for Chiral Plasmonics. ACS Photonics, 2019, 6, 3306-3314.	6.6	25
50	Hybrid Lithographic and DNA-Directed Assembly of a Configurable Plasmonic Metamaterial That Exhibits Electromagnetically Induced Transparency. Nano Letters, 2018, 18, 859-864.	9.1	24
51	Electron-driven photon sources for correlative electron-photon spectroscopy with electron microscopes. Nanophotonics, 2020, 9, 4381-4406.	6.0	22
52	Au Nanotip as Luminescent Near-Field Probe. Nano Letters, 2013, 13, 3566-3570.	9.1	21
53	Pushing Down the Limit: In Vitro Detection of a Polypeptide Monolayer on a Single Infrared Resonant Nanoantenna. ACS Photonics, 2019, 6, 2636-2642.	6.6	20
54	Ultrasensitive Tip- and Antenna-Enhanced Infrared Nanoscopy of Protein Complexes. Journal of Physical Chemistry C, 2019, 123, 17505-17509.	3.1	20

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55	Nanoantenna-Enhanced Infrared Spectroscopic Chemical Imaging. ACS Sensors, 2017, 2, 655-662.	7.8	19
56	Electrons Generate Self-Complementary Broadband Vortex Light Beams Using Chiral Photon Sieves. Nano Letters, 2020, 20, 5975-5981.	9.1	18
57	Plasmonic oligomers in cylindrical vector light beams. Beilstein Journal of Nanotechnology, 2013, 4, 57-65.	2.8	16
58	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.	2.2	16
59	Wavelength-Dependent Third-Harmonic Generation in Plasmonic Gold Nanoantennas: Quantitative Determination of the d-Band Influence. ACS Photonics, 2018, 5, 1863-1870.	6.6	16
60	Resonant Plasmonic Nanoslits Enable in Vitro Observation of Single-Monolayer Collagen-Peptide Dynamics. ACS Sensors, 2019, 4, 1966-1972.	7.8	16
61	Utilizing niobium plasmonic perfect absorbers for tunable near- and mid-IR photodetection. Optics Express, 2019, 27, 25012.	3.4	16
62	Tunable green lasing from circular grating distributed feedback based on CH₃NH₃PbBr₃ perovskite. Optical Materials Express, 2019, 9, 2006.	3.0	16
63	Plasmonic antennas, positioning, and coupling of individual quantum systems. Physica Status Solidi (B): Basic Research, 2012, 249, 666-677.	1.5	15
64	Electrically switchable metasurface for beam steering using PEDOT polymers. Journal of Optics (United Kingdom), 2020, 22, 124001.	2.2	15
65	Interaction of edge exciton polaritons with engineered defects in the hyperbolic material Bi2Se3. Communications Materials, 2021, 2, .	6.9	13
66	Optical properties of niobium nitride plasmonic nanoantennas for the near- and mid-infrared spectral range. Optical Materials Express, 2020, 10, 2597.	3.0	12
67	Optimizing magnesium thin films for optical switching applications: rules and recipes. Optical Materials Express, 2020, 10, 1346.	3.0	11
68	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.	7.3	10
69	Hybrid Organic-Plasmonic Nanoantennas with Enhanced Third-Harmonic Generation. ACS Omega, 2017, 2, 2577-2582.	3.5	9
70	Adaptive Method for Quantitative Estimation of Glucose and Fructose Concentrations in Aqueous Solutions Based on Infrared Nanoantenna Optics. Sensors, 2019, 19, 3053.	3.8	8
71	Nonlinear Spectroscopy on the Plasmonic Analog of Electromagnetically Induced Absorption: Revealing Minute Structural Asymmetries. ACS Photonics, 2019, 6, 2850-2859.	6.6	8
72	Machine Learning Methods of Regression for Plasmonic Nanoantenna Glucose Sensing. Sensors, 2022, 22, 7.	3.8	7

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73	Mass-producible micro-optical elements by injection compression molding and focused ion beam structured titanium molding tools. Optics Letters, 2020, 45, 1184.	3.3	6
74	Resonant multimeanderâ€metasurfaces: A model system for superlenses and communication devices. Physica Status Solidi (B): Basic Research, 2012, 249, 1415-1421.	1.5	4
75	The optimal antenna for nonlinear spectroscopy of weakly and strongly scattering nanoobjects. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	4
76	Plasmonic Metasurface Resonators to Enhance Terahertz Magnetic Fields for Highâ€Frequency Electron Paramagnetic Resonance. Small Methods, 2021, 5, e2100376.	8.6	3
77	Liquid Hydrogenation of Plasmonic Nanoantennas via Alcohol Deprotonation. ACS Photonics, 2021, 8, 1810-1816.	6.6	2
78	Nonlinear Plasmon Optics. Nano-optics and Nanophotonics, 2015, , 155-181.	0.2	2
79	Switchable Optical Nonlinearity at the Metal to Insulator Transition in Magnesium Thin Films. ACS Photonics, 2020, 7, 1560-1568.	6.6	2
80	Electrically Switchable Metasurface for Beam Steering Using PEDOT Polymers. , 2021, , .		1
81	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single plasmonic nanodisc. , 2011, , .		0
82	Nanoantenna-enhanced ultrafast nonlinear spectroscopy of a single plasmonic nanodisc. , 2011, , .		0
83	Watching In Situ the Hydrogen Diffusion Dynamics in Magnesium on the Nanoscale. , 2021, , .		0
84	SEIRA Sensing of Different Sugars at Physiological Concentrations. , 2021, , .		0