

# Rainer Hillenbrand

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

168  
papers

15,068  
citations

65  
h-index

121  
g-index

191  
ext. papers

17,433  
ext. citations

11.9  
avg, IF

6.57  
L-index

#	Paper	IF	Citations
168	Phonon-Enhanced Mid-Infrared CO <sub>2</sub> Gas Sensing Using Boron Nitride Nanoresonators. <i>ACS Photonics</i> , <b>2022</b> , 9, 34-42	6.3	3
167	Rapid simulations of hyperspectral near-field images of three-dimensional heterogeneous surfaces - part II.. <i>Optics Express</i> , <b>2022</b> , 30, 11228-11242	3.3	3
166	Real-space nanoimaging of THz polaritons in the topological insulator BiSe <sub>3</sub> . <i>Nature Communications</i> , <b>2022</b> , 13, 1374	17.4	4
165	Solvent-structured PEDOT:PSS surfaces: Fabrication strategies and nanoscale properties. <i>Polymer</i> , <b>2022</b> , 246, 124723	3.9	0
164	High-fidelity nano-FTIR spectroscopy by on-pixel normalization of signal harmonics. <i>Nanophotonics</i> , <b>2022</b> , 11, 377-390	6.3	5
163	Active and Passive Tuning of ultra-narrow Resonances in Polaritonic Nanoantennas.. <i>Advanced Materials</i> , <b>2021</b> , e2104954	24	1
162	Focusing of in-plane hyperbolic polaritons in van der Waals crystals with tailored infrared nanoantennas. <i>Science Advances</i> , <b>2021</b> , 7, eabj0127	14.3	8
161	Microcavity phonon polaritons from the weak to the ultrastrong phonon-photon coupling regime. <i>Nature Communications</i> , <b>2021</b> , 12, 6206	17.4	5
160	Rapid simulations of hyperspectral near-field images of three-dimensional heterogeneous surfaces. <i>Optics Express</i> , <b>2021</b> , 29, 39648-39668	3.3	5
159	Planar refraction and lensing of highly confined polaritons in anisotropic media. <i>Nature Communications</i> , <b>2021</b> , 12, 4325	17.4	12
158	Plasmonic Metasurface Resonators to Enhance Terahertz Magnetic Fields for High-Frequency Electron Paramagnetic Resonance.. <i>Small Methods</i> , <b>2021</b> , 5, e2100376	12.8	2
157	Real-space observation of vibrational strong coupling between propagating phonon polaritons and organic molecules. <i>Nature Photonics</i> , <b>2021</b> , 15, 197-202	33.9	26
156	Enhanced Light-Matter Interaction in 10B Monoisotopic Boron Nitride Infrared Nanoresonators. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2001958	8.1	11
155	Cross-Sectional Chemical Nanoimaging of Composite Polymer Nanoparticles by Infrared Nanospectroscopy. <i>Macromolecules</i> , <b>2021</b> , 54, 995-1005	5.5	6
154	Amplitude- and Phase-Resolved Infrared Nanoimaging and Nanospectroscopy of Polaritons in a Liquid Environment. <i>Nano Letters</i> , <b>2021</b> , 21, 1360-1367	11.5	3
153	Nanoscale terahertz scanning probe microscopy. <i>Nature Photonics</i> , <b>2021</b> , 15, 558-569	33.9	31
152	Hyperspectral Nanoimaging of van der Waals Polaritonic Crystals. <i>Nano Letters</i> , <b>2021</b> , 21, 7109-7115	11.5	3

151	Interface nano-optics with van der Waals polaritons. <i>Nature</i> , <b>2021</b> , 597, 187-195	50.4	28
150	Subsurface chemical nanoidentification by nano-FTIR spectroscopy. <i>Nature Communications</i> , <b>2020</b> , 11, 3359	17.4	40
149	Nanoscale Guiding of Infrared Light with Hyperbolic Volume and Surface Polaritons in van der Waals Material Ribbons. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906530	24	17
148	THz Near-Field Imaging of Extreme Subwavelength Metal Structures. <i>ACS Photonics</i> , <b>2020</b> , 7, 687-694	6.3	26
147	Broad spectral tuning of ultra-low-loss polaritons in a van der Waals crystal by intercalation. <i>Nature Materials</i> , <b>2020</b> , 19, 964-968	27	59
146	Nanofocusing of acoustic graphene plasmon polaritons for enhancing mid-infrared molecular fingerprints. <i>Nanophotonics</i> , <b>2020</b> , 9, 2089-2095	6.3	3
145	Probing and steering bulk and surface phonon polaritons in uniaxial materials using fast electrons: Hexagonal boron nitride. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	1
144	Plasmonic antenna coupling to hyperbolic phonon-polaritons for sensitive and fast mid-infrared photodetection with graphene. <i>Nature Communications</i> , <b>2020</b> , 11, 4872	17.4	19
143	Terahertz Nanoimaging and Nanospectroscopy of Chalcogenide Phase-Change Materials. <i>ACS Photonics</i> , <b>2020</b> , 7, 3499-3506	6.3	13
142	Collective near-field coupling and nonlocal phenomena in infrared-phononic metasurfaces for nano-light canalization. <i>Nature Communications</i> , <b>2020</b> , 11, 3663	17.4	35
141	Extremely Confined Acoustic Phonon Polaritons in Monolayer-hBN/Metal Heterostructures for Strong Light-Matter Interactions. <i>ACS Photonics</i> , <b>2020</b> , 7, 2610-2617	6.3	11
140	Rapid Infrared Spectroscopic Nanoimaging with nano-FTIR Holography. <i>ACS Photonics</i> , <b>2020</b> , 7, 2878-2885	6.3	6
139	High performance crystalline nanocellulose using an ancestral endoglucanase. <i>Communications Materials</i> , <b>2020</b> , 1,	6	17
138	Hyperspectral time-domain terahertz nano-imaging. <i>Optics Express</i> , <b>2019</b> , 27, 24231-24242	3.3	40
137	Substrate Matters: Surface-Polariton Enhanced Infrared Nanospectroscopy of Molecular Vibrations. <i>Nano Letters</i> , <b>2019</b> , 19, 8066-8073	11.5	20
136	Fast and Sensitive Terahertz Detection Using an Antenna-Integrated Graphene pn Junction. <i>Nano Letters</i> , <b>2019</b> , 19, 2765-2773	11.5	82
135	Probes for Ultrasensitive THz Nanoscopy. <i>ACS Photonics</i> , <b>2019</b> , 6, 1279-1288	6.3	48
134	What momentum mismatch?. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 308-309	28.7	2

133	Launching of hyperbolic phonon-polaritons in h-BN slabs by resonant metal plasmonic antennas. <i>Nature Communications</i> , <b>2019</b> , 10, 3242	17.4	33
132	Deeply subwavelength phonon-polaritonic crystal made of a van der Waals material. <i>Nature Communications</i> , <b>2019</b> , 10, 42	17.4	25
131	Infrared hyperbolic metasurface based on nanostructured van der Waals materials. <i>Science</i> , <b>2018</b> , 359, 892-896	33.3	215
130	Boron nitride nanoresonators for phonon-enhanced molecular vibrational spectroscopy at the strong coupling limit. <i>Light: Science and Applications</i> , <b>2018</b> , 7, 17172	16.7	176
129	Surface-Enhanced Molecular Electron Energy Loss Spectroscopy. <i>ACS Nano</i> , <b>2018</b> , 12, 4775-4786	16.7	25
128	Phase-resolved terahertz self-detection near-field microscopy. <i>Optics Express</i> , <b>2018</b> , 26, 18423-18435	3.3	41
127	All-electronic terahertz nanoscopy. <i>Optica</i> , <b>2018</b> , 5, 159	8.6	48
126	Understanding the Image Contrast of Material Boundaries in IR Nanoscopy Reaching 5 nm Spatial Resolution. <i>ACS Photonics</i> , <b>2018</b> , 5, 3372-3378	6.3	46
125	Addressing Vibrational Excitations in Van der Waals Materials and Molecular Layers Within Electron Energy Loss Spectroscopy. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 408-409	0.5	
124	Nano-imaging of intersubband transitions in van der Waals quantum wells. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 1035-1041	28.7	45
123	Combined Tip-Enhanced Raman Spectroscopy and Scattering-Type Scanning Near-Field Optical Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 16274-16280	3.8	10
122	Transient vibration imaging with time-resolved synthetic holographic confocal microscopy. <i>Optics Express</i> , <b>2018</b> , 26, 26688-26699	3.3	5
121	High performance mixed matrix membranes (MMMs) composed of ZIF-94 filler and 6FDA-DAM polymer. <i>Journal of Membrane Science</i> , <b>2018</b> , 550, 198-207	9.6	71
120	Vibrational electron energy loss spectroscopy in truncated dielectric slabs. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	13
119	In-plane anisotropic and ultra-low-loss polaritons in a natural van der Waals crystal. <i>Nature</i> , <b>2018</b> , 562, 557-562	50.4	285
118	Hyperspectral infrared nanoimaging of organic samples based on Fourier transform infrared nanospectroscopy. <i>Nature Communications</i> , <b>2017</b> , 8, 14402	17.4	97
117	Optical Nanoimaging of Hyperbolic Surface Polaritons at the Edges of van der Waals Materials. <i>Nano Letters</i> , <b>2017</b> , 17, 228-235	11.5	80
116	Nanoimaging of resonating hyperbolic polaritons in linear boron nitride antennas. <i>Nature Communications</i> , <b>2017</b> , 8, 15624	17.4	91

115	Tuning quantum nonlocal effects in graphene plasmonics. <i>Science</i> , <b>2017</b> , 357, 187-191	33.3	189
114	Dual-Scattering Near-Field Microscope for Correlative Nanoimaging of SERS and Electromagnetic Hotspots. <i>Nano Letters</i> , <b>2017</b> , 17, 2667-2673	11.5	38
113	Acoustic Graphene Plasmon Nanoresonators for Field-Enhanced Infrared Molecular Spectroscopy. <i>ACS Photonics</i> , <b>2017</b> , 4, 3089-3097	6.3	31
112	Terahertz Nanofocusing with Cantilevered Terahertz-Resonant Antenna Tips. <i>Nano Letters</i> , <b>2017</b> , 17, 6526-6533	11.5	53
111	Probing low-energy hyperbolic polaritons in van der Waals crystals with an electron microscope. <i>Nature Communications</i> , <b>2017</b> , 8, 95	17.4	86
110	Intrinsic Plasmon-Phonon Interactions in Highly Doped Graphene: A Near-Field Imaging Study. <i>Nano Letters</i> , <b>2017</b> , 17, 5908-5913	11.5	30
109	Graphene Plasmon Reflection by Corrugations. <i>ACS Photonics</i> , <b>2017</b> , 4, 3081-3088	6.3	21
108	Electrical detection of hyperbolic phonon-polaritons in heterostructures of graphene and boron nitride. <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	18
107	Plasmon Polariton Field Mapping by Elastic Light Scattering from a Tip. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , <b>2017</b> , 409-437	0.1	
106	Electrical phase control of infrared light in a 350-nm footprint using graphene plasmons. <i>Nature Photonics</i> , <b>2017</b> , 11, 421-424	33.9	48
105	An alternative approach for the incorporation of cellulose nanocrystals in flexible polyurethane foams based on renewably sourced polyols. <i>Industrial Crops and Products</i> , <b>2017</b> , 95, 564-573	5.9	18
104	Acoustic terahertz graphene plasmons revealed by photocurrent nanoscopy. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 31-35	28.7	178
103	Thermoelectric detection and imaging of propagating graphene plasmons. <i>Nature Materials</i> , <b>2017</b> , 16, 204-207	27	104
102	Near-field photocurrent nanoscopy on bare and encapsulated graphene. <i>Nature Communications</i> , <b>2016</b> , 7, 10783	17.4	64
101	Experimental demonstration of the microscopic origin of circular dichroism in two-dimensional metamaterials. <i>Nature Communications</i> , <b>2016</b> , 7, 12045	17.4	123
100	Excitation and probing of hyperbolic phonon polaritons in hexagonal boron nitride structures by fast electrons <b>2016</b> , 1142-1143		
99	Real-space mapping of tailored sheet and edge plasmons in graphene nanoresonators. <i>Nature Photonics</i> , <b>2016</b> , 10, 239-243	33.9	134
98	Harnessing a Quantum Design Approach for Making Low-Loss Superlenses. <i>Nano Letters</i> , <b>2016</b> , 16, 1609-1615	11.5	5

97	Real-Space Mapping of the Chiral Near-Field Distributions in Spiral Antennas and Planar Metasurfaces. <i>Nano Letters</i> , <b>2016</b> , 16, 663-70	11.5	43
96	Strong coupling between phonon-polaritons and plasmonic nanorods. <i>Optics Express</i> , <b>2016</b> , 24, 25528-25539	3.3	30
95	Nanofocusing of Hyperbolic Phonon Polaritons in a Tapered Boron Nitride Slab. <i>ACS Photonics</i> , <b>2016</b> , 3, 924-929	6.3	38
94	Magnitude and phase-resolved infrared vibrational nanospectroscopy with a swept quantum cascade laser. <i>Optics Express</i> , <b>2015</b> , 23, 13358-69	3.3	11
93	Nanoscale-resolved chemical identification of thin organic films using infrared near-field spectroscopy and standard Fourier transform infrared references. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 023113	3.4	74
92	Direct observation of ultraslow hyperbolic polariton propagation with negative phase velocity. <i>Nature Photonics</i> , <b>2015</b> , 9, 674-678	33.9	203
91	Importance of Plasmonic Scattering for an Optimal Enhancement of Vibrational Absorption in SEIRA with Linear Metallic Antennas. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 26652-26662	3.8	60
90	Highly confined low-loss plasmons in graphene-boron nitride heterostructures. <i>Nature Materials</i> , <b>2015</b> , 14, 421-5	27	681
89	Mapping the near fields of plasmonic nanoantennas by scattering-type scanning near-field optical microscopy. <i>Laser and Photonics Reviews</i> , <b>2015</b> , 9, 637-649	8.3	68
88	Near-Field Imaging of Phased Array Metasurfaces. <i>Nano Letters</i> , <b>2015</b> , 15, 3851-8	11.5	48
87	Local Field Enhancement of Mid-Infrared Light in an Integrated Photonic-Plasmonic Structure. <i>Journal of Lightwave Technology</i> , <b>2015</b> , 33, 368-371	4	2
86	Plasmons in Cylindrical 2D Materials as a Platform for Nanophotonic Circuits. <i>ACS Photonics</i> , <b>2015</b> , 2, 280-286	6.3	52
85	Plasmons in graphene on uniaxial substrates. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 011111	3.4	10
84	Coupling mid-infrared light from a photonic crystal waveguide to metallic transmission lines. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 011105	3.4	6
83	Controlling graphene plasmons with resonant metal antennas and spatial conductivity patterns. <i>Science</i> , <b>2014</b> , 344, 1369-73	33.3	236
82	Efficient coupling of light to graphene plasmons by compressing surface polaritons with tapered bulk materials. <i>Nano Letters</i> , <b>2014</b> , 14, 2896-901	11.5	65
81	High-power femtosecond mid-IR sources for s-SNOM applications. <i>Journal of Optics (United Kingdom)</i> , <b>2014</b> , 16, 094003	1.7	20
80	Polarization-Resolved Near-Field Characterization of Nanoscale Infrared Modes in Transmission Lines Fabricated by Gallium and Helium Ion Beam Milling. <i>ACS Photonics</i> , <b>2014</b> , 1, 604-611	6.3	10

79	Recovery of permittivity and depth from near-field data as a step toward infrared nanotomography. <i>ACS Nano</i> , <b>2014</b> , 8, 6911-21	16.7	73
78	Synthetic optical holography for rapid nanoimaging. <i>Nature Communications</i> , <b>2014</b> , 5, 3499	17.4	58
77	Quantitative confocal phase imaging by synthetic optical holography. <i>Optics Express</i> , <b>2014</b> , 22, 15267-763.3	19	
76	Synthetic optical holography with nonlinear-phase reference. <i>Optics Express</i> , <b>2014</b> , 22, 26621-34	3.3	9
75	Structural analysis and mapping of individual protein complexes by infrared nanospectroscopy. <i>Nature Communications</i> , <b>2013</b> , 4, 2890	17.4	245
74	Electronic and plasmonic phenomena at graphene grain boundaries. <i>Nature Nanotechnology</i> , <b>2013</b> , 8, 821-5	28.7	191
73	Strong plasmon reflection at nanometer-size gaps in monolayer graphene on SiC. <i>Nano Letters</i> , <b>2013</b> , 13, 6210-5	11.5	85
72	Electrospinning of peptide and protein fibres: approaching the molecular scale. <i>Faraday Discussions</i> , <b>2013</b> , 166, 208-21	3.6	21
71	Quantitative Measurement of Local Infrared Absorption and Dielectric Function with Tip-Enhanced Near-Field Microscopy. <i>Journal of Physical Chemistry Letters</i> , <b>2013</b> , 4, 1526-31	6.4	120
70	Resonant antenna probes for tip-enhanced infrared near-field microscopy. <i>Nano Letters</i> , <b>2013</b> , 13, 1065-72.5	98	
69	Experimental verification of the spectral shift between near- and far-field peak intensities of plasmonic infrared nanoantennas. <i>Physical Review Letters</i> , <b>2013</b> , 110, 203902	7.4	134
68	Visualizing the near-field coupling and interference of bonding and anti-bonding modes in infrared dimer nanoantennas. <i>Optics Express</i> , <b>2013</b> , 21, 1270-80	3.3	49
67	Far-field disentanglement of modes in hybrid plasmonic-photonic crystals by fluorescence nano-reporters. <i>Nanophotonics</i> , <b>2013</b> , 2, 173-185	6.3	13
66	Tuning the polarization state of light via time retardation with a microstructured surface. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	19
65	Propagation and nanofocusing of infrared surface plasmons on tapered transmission lines: Influence of the substrate. <i>Optics Communications</i> , <b>2012</b> , 285, 3378-3382	2	4
64	Correlative infrared-electron nanoscopy reveals the local structure-conductivity relationship in zinc oxide nanowires. <i>Nature Communications</i> , <b>2012</b> , 3, 1131	17.4	44
63	Resolving the electromagnetic mechanism of surface-enhanced light scattering at single hot spots. <i>Nature Communications</i> , <b>2012</b> , 3, 684	17.4	179
62	Nano-FTIR absorption spectroscopy of molecular fingerprints at 20 nm spatial resolution. <i>Nano Letters</i> , <b>2012</b> , 12, 3973-8	11.5	369

61	Phase in nanooptics. <i>ACS Nano</i> , <b>2012</b> , 6, 8-12	16.7	28
60	Optical nano-imaging of gate-tunable graphene plasmons. <i>Nature</i> , <b>2012</b> , 487, 77-81	50.4	1478
59	Localized Surface Plasmons: Basics and Applications in Field-Enhanced Spectroscopy. <i>Springer Series in Optical Sciences</i> , <b>2012</b> , 151-176	0.5	7
58	Enhanced resolution in subsurface near-field optical microscopy. <i>Optics Express</i> , <b>2012</b> , 20, 593-600	3.3	50
57	Nanoscale Chemical Mapping by Local Infrared Spectroscopy (nano-FTIR). <i>Microscopy Today</i> , <b>2012</b> , 20, 28-31	0.4	8
56	Nanoscale infrared absorption spectroscopy of individual nanoparticles enabled by scattering-type near-field microscopy. <i>ACS Nano</i> , <b>2011</b> , 5, 6494-9	16.7	67
55	Real-space mapping of Fano interference in plasmonic metamolecules. <i>Nano Letters</i> , <b>2011</b> , 11, 3922-6	11.5	117
54	Longitudinal and transverse coupling in infrared gold nanoantenna arrays: long range versus short range interaction regimes. <i>Optics Express</i> , <b>2011</b> , 19, 15047-61	3.3	85
53	Whispering gallery mode resonators with J-aggregates. <i>Optics Express</i> , <b>2011</b> , 19, 22280-91	3.3	23
52	Infrared-spectroscopic nanoimaging with a thermal source. <i>Nature Materials</i> , <b>2011</b> , 10, 352-6	27	224
51	Nanofocusing of mid-infrared energy with tapered transmission lines. <i>Nature Photonics</i> , <b>2011</b> , 5, 283-287	33.9	179
50	Designer magnetoplasmonics with nickel nanoferrromagnets. <i>Nano Letters</i> , <b>2011</b> , 11, 5333-8	11.5	173
49	Plasmonic nickel nanoantennas. <i>Small</i> , <b>2011</b> , 7, 2341-7	11	150
48	Quantitative, nanoscale free-carrier concentration mapping using terahertz near-field nanoscopy <b>2011</b> ,		1
47	Infrared spectroscopic near-field mapping of single nanotransistors. <i>Nanotechnology</i> , <b>2010</b> , 21, 235702	3.4	45
46	Visualizing the optical interaction tensor of a gold nanoparticle pair. <i>Nano Letters</i> , <b>2010</b> , 10, 652-6	11.5	28
45	Phase-resolved mapping of the near-field vector and polarization state in nanoscale antenna gaps. <i>Nano Letters</i> , <b>2010</b> , 10, 3524-8	11.5	128
44	Amplitude- and Phase-Resolved Near-Field Mapping of Infrared Antenna Modes by Transmission-Mode Scattering-Type Near-Field Microscopy <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 7341-7345	3.8	75



43	Infrared and terahertz nanoscopy <b>2010</b> ,		1
42	Nanoscale free-carrier profiling of individual semiconductor nanowires by infrared near-field nanoscopy. <i>Nano Letters</i> , <b>2010</b> , 10, 1387-92	11.5	108
41	Infrared phononic nanoantennas: Localized surface phonon polaritons in SiC disks. <i>Science Bulletin</i> , <b>2010</b> , 55, 2625-2628		10
40	Temperature-depending Raman line-shift of silicon carbide. <i>Journal of Raman Spectroscopy</i> , <b>2009</b> , 40, 1867-1874	2.3	24
39	Nanoscale Conductivity Contrast by Scattering-Type Near-Field Optical Microscopy in the Visible, Infrared and THz Domains. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , <b>2009</b> , 30, 1255	2.2	17
38	Infrared nanoscopy of strained semiconductors. <i>Nature Nanotechnology</i> , <b>2009</b> , 4, 153-7	28.7	87
37	Controlling the near-field oscillations of loaded plasmonic nanoantennas. <i>Nature Photonics</i> , <b>2009</b> , 3, 287-291	3.9	365
36	Nanoscale residual stress-field mapping around nanoindentations in SiC by IR s-SNOM and confocal Raman microscopy. <i>Optics Express</i> , <b>2009</b> , 17, 22351-7	3.3	28
35	Influence of the tip in near-field imaging of nanoparticle plasmonic modes: Weak and strong coupling regimes. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	95
34	Nanoscale optical tomography using volume-scanning near-field microscopy. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 121108	3.4	23
33	Local excitation and interference of surface phonon polaritons studied by near-field infrared microscopy. <i>Journal of Microscopy</i> , <b>2008</b> , 229, 389-95	1.9	38
32	Terahertz near-field nanoscopy of mobile carriers in single semiconductor nanodevices. <i>Nano Letters</i> , <b>2008</b> , 8, 3766-70	11.5	359
31	Focusing of surface phonon polaritons. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 203104	3.4	64
30	Near-field amplitude and phase recovery using phase-shifting interferometry. <i>Optics Express</i> , <b>2008</b> , 16, 494-501	3.3	48
29	Substrate-enhanced infrared near-field spectroscopy. <i>Optics Express</i> , <b>2008</b> , 16, 1529-45	3.3	91
28	Material-specific infrared recognition of single sub-10 nm particles by substrate-enhanced scattering-type near-field microscopy. <i>Nano Letters</i> , <b>2007</b> , 7, 3177-81	11.5	42
27	Nanohole Plasmons in Optically Thin Gold Films. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 1207-1212	3.8	136
26	Simultaneous IR Material Recognition and Conductivity Mapping by Nanoscale Near-Field Microscopy. <i>Advanced Materials</i> , <b>2007</b> , 19, 2209-2212	24	70

25	Analytical model for quantitative prediction of material contrasts in scattering-type near-field optical microscopy. <i>Optics Express</i> , <b>2007</b> , 15, 8550-65	3.3	216
24	Nanoscale resolved infrared probing of crystal structure and of plasmon-phonon coupling. <i>Nano Letters</i> , <b>2006</b> , 6, 774-8	11.5	48
23	Near-field microscopy through a SiC superlens. <i>Science</i> , <b>2006</b> , 313, 1595	33.3	433
22	Infrared imaging of single nanoparticles via strong field enhancement in a scanning nanogap. <i>Physical Review Letters</i> , <b>2006</b> , 97, 060801	7.4	69
21	Pseudoheterodyne detection for background-free near-field spectroscopy. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 101124	3.4	331
20	Infrared spectroscopic mapping of single nanoparticles and viruses at nanoscale resolution. <i>Nano Letters</i> , <b>2006</b> , 6, 1307-10	11.5	198
19	Mikroskopie mit einer Superlinse. <i>Physik in Unserer Zeit</i> , <b>2006</b> , 37, 260-261	0.1	
18	Near-field imaging of mid-infrared surface phonon polariton propagation. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 081103	3.4	128
17	Nanoscale-resolved subsurface imaging by scattering-type near-field optical microscopy. <i>Optics Express</i> , <b>2005</b> , 13, 8893-9	3.3	133
16	Resonant light scattering by near-field-induced phonon polaritons. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	31
15	Subwavelength-scale tailoring of surface phonon polaritons by focused ion-beam implantation. <i>Nature Materials</i> , <b>2004</b> , 3, 606-9	27	126
14	Towards phonon photonics: scattering-type near-field optical microscopy reveals phonon-enhanced near-field interaction. <i>Ultramicroscopy</i> , <b>2004</b> , 100, 421-7	3.1	42
13	Nanomechanical Resonance Tuning and Phase Effects in Optical Near-Field Interaction. <i>Nano Letters</i> , <b>2004</b> , 4, 1669-1672	11.5	74
12	Nanoscale polymer recognition by spectral signature in scattering infrared near-field microscopy. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 5064-5066	3.4	158
11	Contrast and scattering efficiency of scattering-type near-field optical probes. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 4466	3.4	15
10	Near-field microscopy by elastic light scattering from a tip. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2004</b> , 362, 787-805	3	420
9	Infrared spectroscopy on the nanometer-scale. <i>Microscopy and Microanalysis</i> , <b>2003</b> , 9, 1066-1067	0.5	
8	Performance of visible and mid-infrared scattering-type near-field optical microscopes. <i>Journal of Microscopy</i> , <b>2003</b> , 210, 311-4	1.9	130

7	Coherent imaging of nanoscale plasmon patterns with a carbon nanotube optical probe. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 368-370	3.4	141
6	Phonon-enhanced light matter interaction at the nanometre scale. <i>Nature</i> , <b>2002</b> , 418, 159-62	50.4	620
5	Material-specific mapping of metal/semiconductor/dielectric nanosystems at 10 nm resolution by backscattering near-field optical microscopy. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 25-27	3.4	155
4	Optical oscillation modes of plasmon particles observed in direct space by phase-contrast near-field microscopy. <i>Applied Physics B: Lasers and Optics</i> , <b>2001</b> , 73, 239-243	1.9	92
3	Pure optical contrast in scattering-type scanning near-field microscopy. <i>Journal of Microscopy</i> , <b>2001</b> , 202, 77-83	1.9	145
2	Higher-harmonics generation in tapping-mode atomic-force microscopy: Insights into the tip-sample interaction. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 3478-3480	3.4	106
1	Complex optical constants on a subwavelength scale. <i>Physical Review Letters</i> , <b>2000</b> , 85, 3029-32	7.4	352