A Femius Koenderink

List of Publications by Year
in descending order

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155 papers	7,782 citations	44069 48 h-index	54911 84 g-index
157 all docs	157 docs citations	157 times ranked	7653 citing authors

#	Article	IF	Citations
1	Nanophotonics: Shrinking light-based technology. Science, 2015, 348, 516-521.	12.6	463
2	Experimental observation of a polarization vortex at an optical bound state in the continuum. Nature Photonics, 2018, 12, 397-401.	31.4	325
3	On the use of Purcell factors for plasmon antennas. Optics Letters, 2010, 35, 4208.	3.3	315
4	Plasmon-enhanced luminescence near noble-metal nanospheres: Comparison of exact theory and an improved Gersten and Nitzan model. Physical Review B, 2007, 76, .	3.2	302
5	Single-Photon Nanoantennas. ACS Photonics, 2017, 4, 710-722.	6.6	228
6	Electric and Magnetic Dipole Coupling in Near-Infrared Split-Ring Metamaterial Arrays. Physical Review Letters, 2009, 103, 213902.	7.8	212
7	Complex response and polariton-like dispersion splitting in periodic metal nanoparticle chains. Physical Review B, 2006, 74, .	3.2	187
8	Directional Emission from Plasmonic Yagiâ€“Uda Antennas Probed by Angle-Resolved Cathodoluminescence Spectroscopy. Nano Letters, 2011, 11, 3779-3784.	9.1	172
9	Light-emitting metasurfaces. Nanophotonics, 2019, 8, 1151-1198.	6.0	166
10	Plasmon Nanoparticle Array Waveguides for Single Photon and Single Plasmon Sources. Nano Letters, 2009, 9, 4228-4233.	9.1	154
11	Directional emission from a single plasmonic scatterer. Nature Communications, 2014, 5, 3250.	12.8	154
12	High-Index Dielectric Metasurfaces Performing Mathematical Operations. Nano Letters, 2019, 19, 8418-8423.	9.1	143
13	Lasing at the band edges of plasmonic lattices. Physical Review B, 2014, 90, .	3.2	142
14	Optical extinction due to intrinsic structural variations of photonic crystals. Physical Review B, 2005, 72, .	3.2	135
15	Local density of states, spectrum, and far-field interference of surface plasmon polaritons probed by cathodoluminescence. Physical Review B, 2009, 79, .	3.2	132
16	Plasmonic Antennas Hybridized with Dielectric Waveguides. ACS Nano, 2012, 6, 10156-10167.	14.6	130
17	Delayed Exciton Emission and Its Relation to Blinking in CdSe Quantum Dots. Nano Letters, 2015, 15, 7718-7725.	9.1	130
18	Spatially Resolved Observation of Dipole-Dipole Interaction between Rydberg Atoms. Physical Review Letters, 2008, 100, 243201.	7.8	128

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19	Controlling the Resonance of a Photonic Crystal Microcavity by a Near-Field Probe. Physical Review Letters, 2005, 95, 153904.	7.8	121
20	Tunable Nanoscale Localization of Energy on Plasmon Particle Arrays. Nano Letters, 2007, 7, 2004-2008.	9.1	120
21	Broadband Fivefold Reduction of Vacuum Fluctuations Probed by Dyes in Photonic Crystals. Physical Review Letters, 2002, 88, 143903.	7.8	112
22	Magnetoelectric point scattering theory for metamaterial scatterers. Physical Review B, 2011, 83, .	3.2	110
23	Scanning Emitter Lifetime Imaging Microscopy for Spontaneous Emission Control. Physical Review Letters, 2011, 107, 123602.	7.8	108
24	Antennaâ€“Cavity Hybrids: Matching Polar Opposites for Purcell Enhancements at Any Linewidth. ACS Photonics, 2016, 3, 1943-1951.	6.6	104
25	Ultrafast switching of photonic density of states in photonic crystals. Physical Review B, 2002, 66, .	3.2	99
26	Signature of a Fano Resonance in a Plasmonic Metamoleculeâ€™s Local Density of Optical States. Physical Review Letters, 2012, 108, 077404.	7.8	97
27	Light Exiting from Real Photonic Band Gap Crystals is Diffuse and Strongly Directional. Physical Review Letters, 2003, 91, 213902.	7.8	94
28	Strongly nonexponential time-resolved fluorescence of quantum-dot ensembles in three-dimensional photonic crystals. Physical Review B, 2007, 75, .	3.2	86
29	Ubiquity of Optical Activity in Planar Metamaterial Scatterers. Physical Review Letters, 2012, 108, 223903.	7.8	86
30	Modified spontaneous emission spectra of laser dye in inverse opal photonic crystals. Physical Review A, 2000, 63, .	2.5	84
31	Suitability of nanodiamond nitrogenâ€“vacancy centers for spontaneous emission control experiments. New Journal of Physics, 2013, 15, 043017.	2.9	82
32	Spin-Dependent Emission from Arrays of Planar Chiral Nanoantennas Due to Lattice and Localized Plasmon Resonances. ACS Nano, 2016, 10, 3389-3397.	14.6	77
33	Angle-Resolved Cathodoluminescence Imaging Polarimetry. ACS Photonics, 2016, 3, 147-154.	6.6	76
34	Enhanced backscattering from photonic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 268, 104-111.	2.1	74
35	Reduced Auger Recombination in Single CdSe/CdS Nanorods by One-Dimensional Electron Delocalization. Nano Letters, 2013, 13, 4884-4892.	9.1	70
36	Trapping Light in Plain Sight: Embedded Photonic Eigenstates in Zeroâ€Index Metamaterials. Laser and Photonics Reviews, 2018, 12, 1700220.	8.7	70

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37	Polarization, Microscopic Origin, and Mode Structure of Luminescence and Lasing from Single ZnO Nanowires. Nano Letters, 2009, 9, 3515-3520.	9.1	68
38	Plasmonic Band Structure Controls Single-Molecule Fluorescence. ACS Nano, 2013, 7, 8840-8848.	14.6	68
39	Experimental evidence for large dynamic effects on the plasmon dispersion of subwavelength metal nanoparticle waveguides. Physical Review B, 2007, 76, .	3.2	59
40	Spontaneous emission rates of dipoles in photonic crystal membranes. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 1196.	2.1	58
41	Coherent single-photon absorption by single emitters coupled to one-dimensional nanophotonic waveguides. New Journal of Physics, 2011, 13, 103010.	2.9	55
42	Fourier microscopy of single plasmonic scatterers. New Journal of Physics, 2011, 13, 083019.	2.9	54
43	Controlling crystallization to imprint nanophotonic structures into halide perovskites using soft lithography. Journal of Materials Chemistry C, 2017, 5, 8301-8307.	5.5	54
44	Perfect Absorption and Phase Singularities in Plasmon Antenna Array Etalons. ACS Photonics, 2019, 6, 2917-2925.	6.6	53
45	Polarizability tensor retrieval for magnetic and plasmonic antenna design. New Journal of Physics, 2013, 15, 073023.	2.9	52
46	Dynamics of Intraband and Interband Auger Processes in Colloidal Coreâ€“Shell Quantum Dots. ACS Nano, 2015, 9, 10366-10376.	14.6	52
47	Orientation-dependent spontaneous emission rates of a two-level quantum emitter in any nanophotonic environment. Physical Review A, 2009, 80, .	2.5	51
48	Optical properties of real photonic crystals: anomalous diffuse transmission. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1075.	2.1	50
49	Statistics of Randomized Plasmonic Lattice Lasers. ACS Photonics, 2015, 2, 1289-1297.	6.6	48
50	Underpinning Hybridization Intuition for Complex Nanoantennas by Magnetoelectric Quadrupolar Polarizability Retrieval. ACS Photonics, 2014, 1, 444-453.	6.6	46
51	Lasing in quasi-periodic and aperiodic plasmon lattices. Optica, 2016, 3, 686.	9.3	46
52	Breaking the Symmetry of Forward-Backward Light Emission with Localized and Collective Magnetoelectric Resonances in Arrays of Pyramid-Shaped Aluminum Nanoparticles. Physical Review Letters, 2014, 113, 247401.	7.8	44
53	K-space polarimetry of bullseye plasmon antennas. Scientific Reports, 2015, 5, 9966.	3.3	44
54	Hybrid cavity-antenna systems for quantum optics outside the cryostat?. Nanophotonics, 2019, 8, 1513-1531.	6.0	44

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55	Programmable Nanolithography with Plasmon Nanoparticle Arrays. Nano Letters, 2007, 7, 745-749.	9.1	43
56	Optical properties of two-dimensional magnetoelectric point scattering lattices. Physical Review B, 2013, 88, .	3.2	41
57	Emission Spectra and Lifetimes of R6G Dye on Silica-Coated Titania Powder. Langmuir, 2002, 18, 2444-2447.	3.5	39
58	Accurate calculation of the local density of optical states in inverse-opal photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 987.	2.1	39
59	Mapping complex mode volumes with cavity perturbation theory. Optica, 2019, 6, 269.	9.3	39
60	Spontaneous emission in the near field of two-dimensional photonic crystals. Optics Letters, 2005, 30, 3210.	3.3	37
61	Near-field imaging and frequency tuning of a high-Q photonic crystal membrane microcavity. Optics Express, 2007, 15, 17214.	3.4	37
62	Energy-resolved plasmonic chemistry in individual nanoreactors. Nature Nanotechnology, 2021, 16, 1378-1385.	31.5	37
63	Cooperative interactions between nano-antennas in a high-Q cavity for unidirectional light sources. Light: Science and Applications, 2019, 8, 115.	16.6	36
64	Observation of Cooperative Purcell Enhancements in Antennaâ€“Cavity Hybrids. ACS Nano, 2020, 14, 12027-12036.	14.6	35
65	Controlling Optically Driven Atomic Migration Using Crystal-Facet Control in Plasmonic Nanocavities. ACS Nano, 2020, 14, 10562-10568.	14.6	34
66	General point dipole theory for periodic metasurfaces: magnetoelectric scattering lattices coupled to planar photonic structures. Optics Express, 2017, 25, 21358.	3.4	33
67	Superemitters in hybrid photonic systems: A simple lumping rule for the local density of optical states and its breakdown at the unitary limit. Physical Review B, 2012, 86, .	3.2	31
68	Lattice Resonances in Optical Metasurfaces With Gain and Loss. Proceedings of the IEEE, 2020, 108, 795-818.	21.3	31
69	Enhanced absorption and emission of Y_3Al_5O_12:Ce^3+ thin layers prepared by epoxide-catalyzed sol-gel method. Optical Materials Express, 2012, 2, 1111.	3.0	30
70	Spontaneous Emission Control in a Tunable Hybrid Photonic System. Physical Review Letters, 2013, 110, 217405.	7.8	30
71	An experimental study of strongly modified emission in inverse opal photonic crystals. Physica Status Solidi A, 2003, 197, 648-661.	1.7	29
72	Plasmonic phase-gradient metasurface for spontaneous emission control. Physical Review B, 2015, 92, .	3.2	29

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73	Superresolution imaging of the local density of states in plasmon lattices. Optica, 2016, 3, 289.	9.3	29
74	Non-blinking single-photon emitters in silica. Scientific Reports, 2016, 6, 21187.	3.3	28
75	The local density of optical states of a metasurface. Scientific Reports, 2016, 6, 20655.	3.3	28
76	Calibrating and Controlling the Quantum Efficiency Distribution of Inhomogeneously Broadened Quantum Rods by Using a Mirror Ball. ACS Nano, 2013, 7, 5984-5992.	14.6	27
77	Nanoscale Excitation Mapping of Plasmonic Patch Antennas. ACS Photonics, 2014, 1, 1134-1143.	6.6	27
78	Systematic study of the hybrid plasmonic-photonic band structure underlying lasing action of diffractive plasmon particle lattices. Physical Review B, 2017, 95, .	3.2	27
79	From weak to strong coupling of localized surface plasmons to guided modes in a luminescent slab. Physical Review B, 2014, 90, .	3.2	26
80	Perturbing Open Cavities: Anomalous Resonance Frequency Shifts in a Hybrid Cavity-Nanoantenna System. Physical Review Letters, 2015, 115, 203904.	7.8	26
81	Hybrid photonic-plasmonic cavities based on the nanoparticle-on-a-mirror configuration. Photonics Research, 2021, 9, 2398.	7.0	24
82	Diffractive stacks of metamaterial lattices with a complex unit cell: Self-consistent long-range bianisotropic interactions in experiment and theory. Physical Review B, 2014, 89, .	3.2	23
83	Broadband highly directive 3D nanophotonic lenses. Nature Communications, 2018, 9, 4742.	12.8	23
84	Attosecond streaking in a nano-plasmonic field. New Journal of Physics, 2012, 14, 093034.	2.9	22
85	Dispersion of guided modes in two-dimensional split ring lattices. Physical Review B, 2014, 90, .	3.2	22
86	Simultaneous Photonic and Excitonic Coupling in Spherical Quantum Dot Supercrystals. ACS Nano, 2020, 14, 13806-13815.	14.6	22
87	Gray-Tone Lithography Implementation of Drexhageâ€™s Method for Calibrating Radiative and Nonradiative Decay Constants of Fluorophores. Journal of Physical Chemistry C, 2012, 116, 16666-16673.	3.1	21
88	Generation of Pure OAM Beams with a Single State of Polarization by Antenna-Decorated Microdisk Resonators. ACS Photonics, 2020, 7, 3049-3060.	6.6	21
89	Quantifying single plasmonic nanostructure far-fields with interferometric and polarimetric k-space microscopy. Light: Science and Applications, 2018, 7, 65.	16.6	19
90	Over 65% Sunlight Absorption in a 1 Î¼m Si Slab with Hyperuniform Texture. ACS Photonics, 2022, 9, 1206-1217.	6.6	19

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91	Nanomechanical method to gauge emission quantum yield applied to nitrogen-vacancy centers in nanodiamond. Applied Physics Letters, 2013, 102, 121105.	3.3	18
92	A simple transfer-matrix model for metasurface multilayer systems. Nanophotonics, 2020, 9, 3985-4007.	6.0	18
93	Probing the electrodynamic local density of states with magnetoelectric point scatterers. Physical Review B, 2013, 87, .	3.2	17
94	Angle-Resolved Polarimetry of Antenna-Mediated Fluorescence. Physical Review Applied, 2015, 4, .	3.8	17
95	Near-field optics and control of photonic crystals. Photonics and Nanostructures - Fundamentals and Applications, 2005, 3, 63-74.	2.0	16
96	Dynamically reconfigurable directionality of plasmon-based single photon sources. Physical Review B, 2010, 82, .	3.2	16
97	Simple model for plasmon enhanced fluorescence correlation spectroscopy. Optics Express, 2014, 22, 15397.	3.4	16
98	Broadband light scattering and photoluminescence enhancement from plasmonic Vogel's golden spirals. Laser and Photonics Reviews, 2017, 11, 1600235.	8.7	16
99	Wavelength-selective addressing of visible and near-infrared plasmon resonances for SU8 nanolithography. Optics Express, 2011, 19, 11405.	3.4	15
100	High Internal Emission Efficiency of Silicon Nanoparticles Emitting in the Visible Range. ACS Photonics, 2018, 5, 2129-2136.	6.6	15
101	Quasi-periodically forced nonlinear Helmholtz oscillators. Physica D: Nonlinear Phenomena, 2002, 164, 1-27.	2.8	14
102	Drexhageâ€™s Experiment for Sound. Physical Review Letters, 2016, 116, 224301.	7.8	14
103	Nano-Optomechanical Characterization and Manipulation of Photonic Crystals. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 253-261.	2.9	13
104	Controlling Nanoantenna Polarizability through Backaction via a Single Cavity Mode. Physical Review Letters, 2018, 120, 206101.	7.8	13
105	Fractional decay of quantum dots in real photonic crystals. Optics Letters, 2008, 33, 1557.	3.3	12
106	Backaction in metasurface etalons. Physical Review B, 2016, 93, .	3.2	12
107	Plasmon Nanocavity Array Lasers: Cooperating over Losses and Competing for Gain. ACS Nano, 2019, 13, 7377-7382.	14.6	12
108	Band-Gap Tunability in Partially Amorphous Silicon Nanoparticles Using Single-Dot Correlative Microscopy. ACS Applied Nano Materials, 2021, 4, 288-296.	5.0	11

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109	Pseudochirality at exceptional rings of optical metasurfaces. Physical Review Research, 2021, 3, .	3.6	10
110	Photon Recycling in CsPbBr₃ All-Inorganic Perovskite Nanocrystals. ACS Photonics, 2021, 8, 3201-3208.	6.6	10
111	Extreme-Ultraviolet Shaping and Imaging by High-Harmonic Generation from Nanostructured Silica. Physical Review Letters, 2022, 128, .	7.8	10
112	Transmission of coherent phonons through a metallic multilayer. Physical Review B, 2001, 64, .	3.2	9
113	Angular Redistribution of Near-Infrared Emission from Quantum Dots in Three-Dimensional Photonic Crystals. Journal of Physical Chemistry C, 2013, 117, 3431-3439.	3.1	9
114	Robustness of plasmon phased array nanoantennas to disorder. Scientific Reports, 2015, 5, 10911.	3.3	9
115	Directional sideward emission from luminescent plasmonic nanostructures. Optics Express, 2016, 24, A388.	3.4	9
116	Directed Emission from Selfâ€Assembled Microhelices. Advanced Functional Materials, 2020, 30, 1908218.	14.9	9
117	Gain-induced scattering anomalies of diffractive metasurfaces. Nanophotonics, 2020, 9, 4273-4285.	6.0	9
118	Diffraction of coherent phonons emitted by a grating. Physical Review B, 1999, 60, 14719-14723.	3.2	8
119	A â€œstanding-wave meterâ€•to measure dispersion and loss of photonic-crystal waveguides. Applied Physics Letters, 2005, 87, 261110.	3.3	8
120	Broadband coherent backscattering spectroscopy of the interplay between order and disorder in three-dimensional opal photonic crystals. Physical Review B, 2011, 83, .	3.2	8
121	Spatial Intensity Distribution in Plasmonic Particle Array Lasers. Physical Review Applied, 2019, 11, .	3.8	8
122	Simultaneous position and state measurement of Rydberg atoms. European Physical Journal D, 2006, 40, 13-17.	1.3	7
123	Super-Resolution without Imaging: Library-Based Approaches Using Near-to-Far-Field Transduction by a Nanophotonic Structure. ACS Photonics, 2020, 7, 3246-3256.	6.6	7
124	A Python Toolbox for Unbiased Statistical Analysis of Fluorescence Intermittency of Multilevel Emitters. Journal of Physical Chemistry C, 2021, 125, 12050-12060.	3.1	7
125	Integrated Molecular Optomechanics with Hybrid Dielectricâ€“Metallic Resonators. ACS Photonics, 2021, 8, 3506-3516.	6.6	7
126	Nano-antenna enhanced two-focus fluorescence correlation spectroscopy. Scientific Reports, 2017, 7, 5985.	3.3	6

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127	Strong Coupling to Generate Complex Birefringence: Metasurface in the Middle Etalons. ACS Photonics, 2020, 7, 2799-2806.	6.6	6
128	Programming Metasurface Nearâ€Fields for Nanoâ€Optical Sensing. Advanced Optical Materials, 2021, 9, 2100435.	7.3	6
129	Double moirÃ© localized plasmon structured illumination microscopy. Nanophotonics, 2021, 10, 1107-1121.	6.0	6
130	Super-resolution imaging: when biophysics meets nanophotonics. Nanophotonics, 2022, 11, 169-202.	6.0	6
131	Experimental Probes of the Optical Properties of Photonic Crystals. , 2001, , 191-218.		5
132	Nanoscale lithographic positioning of fluorescing quantum dot nanocrystals on planar samples. Optical Materials, 2013, 35, 1342-1347.	3.6	5
133	Spatial coherence control and analysis via micromirror-based mixed-state ptychography. New Journal of Physics, 2021, 23, 053016.	2.9	5
134	Metal Nanoparticles for Microscopy and Spectroscopy. , 2014, , 53-98.		5
135	Uncertainty Estimation and Design Optimization of 2D Diffraction-Based Overlay Metrology Targets. ACS Photonics, 2020, 7, 2765-2777.	6.6	4
136	Intermittency of CsPbBr₃ Perovskite Quantum Dots Analyzed by an Unbiased Statistical Analysis. Journal of Physical Chemistry C, 2021, 125, 12061-12072.	3.1	4
137	Dendritic optical antennas: scattering properties and fluorescence enhancement. Scientific Reports, 2017, 7, 6223.	3.3	3
138	Localizing nanoscale objects using nanophotonic near-field transducers. Nanophotonics, 2021, 10, 1723-1732.	6.0	3
139	Optical Antennas. International Journal of Optics, 2012, 2012, 1-4.	1.4	2
140	Calibration-based overlay sensing with minimal-footprint targets. Applied Physics Letters, 2021, 119, 111104.	3.3	2
141	Plasmon antenna array â€œpatchworkâ€•lasers â€” towards low etendue, speckle free light sources. OSA Continuum, 2019, 2, 1982.	1.8	2
142	Exact Analysis of Nanoantenna Enhanced Fluorescence Correlation Spectroscopy at a Mie Sphere. Journal of Physical Chemistry C, 2016, 120, 13684-13692.	3.1	1
143	Trapping light in resonant metasurfaces for plasmon lasing. AIP Conference Proceedings, 2020, , .	0.4	1
144	Nanophotonic compressed sensing with small dipole arrays. , 2020, , .		1

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145	Optical antennas in hybrid photonic systems. , 2015, , .		0
146	Optical antennas in hybrid photonic systems. , 2015, , .		0
147	Resolving nano-antenna physics through amplitude, polarization and phase of far field angular distributions of light. , 2017, , .		0
148	Hybrid photonic-plasmonic resonances to control spontaneous and stimulated emission. , 2017, , .		0
149	Collective Resonances of Plasmonic Metasurfaces as an Experimental Platform for Nonlinear and Non-Hermitian Physics. , 2020, , .		0
150	Emission and propagation of light controlled by 3D photonic crystals. , 2003, , .		0
151	Dark, Bright, and Optically Active Modes in Magneto-Plasmonic Structures. , 2012, , .		0
152	Polarimetric and interferometric measurement of orbital angular momentum imparted by single plasmon nano-antennas. , 2019, , .		0
153	Sub-diffractive spatial information retrieval from far-field images. , 2020, , .		0
154	Phase-retrieval Fourier microscopy of partially temporally coherent nanoantenna radiation patterns. Optics Express, 2020, 28, 37844.	3.4	0
155	Information advantage from polarization-multiplexed readout of nanophotonic scattering overlay sensors. Optics Express, 0, , .	3.4	0