

Thomas A Klar

List of Publications by Citations

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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.

93
papers

11,531
citations

41
h-index

107
g-index

124
ext. papers

12,502
ext. citations

7.6
avg, IF

5.87
L-index

#	Paper	IF	Citations
93	Fluorescence microscopy with diffraction resolution barrier broken by stimulated emission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 8206-10	11.5	1286
92	Fluorescence quenching of dye molecules near gold nanoparticles: radiative and nonradiative effects. <i>Physical Review Letters</i> , 2002 , 89, 203002	7.4	1048
91	Properties and applications of colloidal nonspherical noble metal nanoparticles. <i>Advanced Materials</i> , 2010 , 22, 1805-25	24	809
90	Surface-Plasmon Resonances in Single Metallic Nanoparticles. <i>Physical Review Letters</i> , 1998 , 80, 4249-4252	7.4	681
89	Gold nanoparticles quench fluorescence by phase induced radiative rate suppression. <i>Nano Letters</i> , 2005 , 5, 585-9	11.5	658
88	Biomolecular Recognition Based on Single Gold Nanoparticle Light Scattering. <i>Nano Letters</i> , 2003 , 3, 935-938	11.5	650
87	Aqueous Synthesis of Thiol-Capped CdTe Nanocrystals: State-of-the-Art. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 14628-14637	3.8	645
86	Subdiffraction resolution in far-field fluorescence microscopy. <i>Optics Letters</i> , 1999 , 24, 954-6	3	591
85	Shaping emission spectra of fluorescent molecules with single plasmonic nanoresonators. <i>Physical Review Letters</i> , 2008 , 100, 203002	7.4	349
84	Plasmon emission in photoexcited gold nanoparticles. <i>Physical Review B</i> , 2004 , 70,	3.3	342
83	Label-free biosensing based on single gold nanostars as plasmonic transducers. <i>ACS Nano</i> , 2010 , 4, 6318-227	12.7	263
82	Fluorescence enhancement in hot spots of AFM-designed gold nanoparticle sandwiches. <i>Nano Letters</i> , 2008 , 8, 485-90	11.5	243
81	Exciton Recycling in Graded Gap Nanocrystal Structures. <i>Nano Letters</i> , 2004 , 4, 1599-1603	11.5	242
80	Gold Nanoshells Improve Single Nanoparticle Molecular Sensors. <i>Nano Letters</i> , 2004 , 4, 1853-1857	11.5	230
79	Bright White-Light Emission from Semiconductor Nanocrystals: by Chance and by Design. <i>Advanced Materials</i> , 2007 , 19, 569-572	24	222
78	Energy transfer with semiconductor nanocrystals. <i>Journal of Materials Chemistry</i> , 2009 , 19, 1208-1221		189
77	Self-assembled binary superlattices of CdSe and Au nanocrystals and their fluorescence properties. <i>Journal of the American Chemical Society</i> , 2008 , 130, 3274-5	16.4	183

76	Breaking Abbe's diffraction resolution limit in fluorescence microscopy with stimulated emission depletion beams of various shapes. <i>Physical Review E</i> , 2001 , 64, 066613	2.4	183
75	Long-range fluorescence quenching by gold nanoparticles in a sandwich immunoassay for cardiac troponin T. <i>Nano Letters</i> , 2009 , 9, 4558-63	11.5	178
74	Electrically controlled light scattering with single metal nanoparticles. <i>Applied Physics Letters</i> , 2002 , 81, 171-173	3.4	167
73	Gold nanostoves for microsecond DNA melting analysis. <i>Nano Letters</i> , 2008 , 8, 619-23	11.5	129
72	120 nm resolution and 55 nm structure size in STED-lithography. <i>Optics Express</i> , 2013 , 21, 10831-40	3.3	125
71	Fast energy transfer in layer-by-layer assembled CdTe nanocrystal bilayers. <i>Applied Physics Letters</i> , 2004 , 84, 2904-2906	3.4	115
70	Negative-Index Metamaterials: Going Optical. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2006 , 12, 1106-1115	3.8	97
69	Negative index metamaterial combining magnetic resonators with metal films. <i>Optics Express</i> , 2006 , 14, 7872-7	3.3	85
68	A Low Threshold Polymer Laser Based on Metallic Nanoparticle Gratings. <i>Advanced Materials</i> , 2003 , 15, 1726-1729	24	82
67	Type-I and type-II nanoscale heterostructures based on CdTe nanocrystals: a comparative study. <i>Small</i> , 2008 , 4, 1148-52	11	79
66	Charge separation in type II tunneling structures of close-packed CdTe and CdSe nanocrystals. <i>Nano Letters</i> , 2008 , 8, 1482-5	11.5	78
65	High-rate unidirectional energy transfer in directly assembled CdTe nanocrystal bilayers. <i>Small</i> , 2005 , 1, 392-5	11	78
64	Voltage-induced adsorbate damping of single gold nanorod plasmons in aqueous solution. <i>Nano Letters</i> , 2012 , 12, 1247-52	11.5	72
63	Moving nanoparticles with Raman scattering. <i>Nano Letters</i> , 2007 , 7, 2753-7	11.5	68
62	Semiconductor nanocrystals photosensitize C60 crystals. <i>Nano Letters</i> , 2006 , 6, 1559-63	11.5	68
61	Spectral and directional reshaping of fluorescence in large area self-assembled plasmonic-photonic crystals. <i>Nano Letters</i> , 2013 , 13, 378-86	11.5	67
60	Energy Transfer in Solution-Based Clusters of CdTe Nanocrystals Electrostatically Bound by Calcium Ions. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 14589-14594	3.8	58
59	Radiative and Nonradiative Rates of Phosphors Attached to Gold Nanoparticles. <i>Nano Letters</i> , 2007 , 7, 1941-1946	11.5	58

58	Optical Sensing of Small Ions with Colloidal Nanoparticles. <i>Chemistry of Materials</i> , 2012 , 24, 738-745	9.6	52
57	DNA Melting in Gold Nanostove Clusters \square <i>Journal of Physical Chemistry C</i> , 2010 , 114, 7401-7411	3.8	46
56	Gold nanostars for random lasing enhancement. <i>Optics Express</i> , 2015 , 23, 15152-9	3.3	44
55	Plasmonic Nanostars as Efficient Broadband Scatterers for Random Lasing. <i>ACS Photonics</i> , 2016 , 3, 919-923	8.3	42
54	Random Lasing with Systematic Threshold Behavior in Films of CdSe/CdS Core/Thick-Shell Colloidal Quantum Dots. <i>ACS Nano</i> , 2015 , 9, 9792-801	16.7	41
53	Optical Plasmons of Individual Gold Nanosponges. <i>ACS Photonics</i> , 2015 , 2, 1436-1442	6.3	39
52	Sub-Abbe resolution: from STED microscopy to STED lithography. <i>Physica Scripta</i> , 2014 , T162, 014049	2.6	38
51	Stimulated emission depletion microscopy with an offset depleting beam. <i>Applied Physics Letters</i> , 2001 , 78, 393-395	3.4	37
50	Stimulated Emission Depletion Lithography with Mercapto-Functional Polymers. <i>ACS Nano</i> , 2016 , 10, 1954-9	16.7	36
49	Performance Boost of Organic Light-Emitting Diodes with Plasmonic Nanostars. <i>Advanced Optical Materials</i> , 2016 , 4, 772-781	8.1	36
48	Anticorrelation of Photoluminescence from Gold Nanoparticle Dimers with Hot-Spot Intensity. <i>Nano Letters</i> , 2016 , 16, 7203-7209	11.5	35
47	Nano-anchors with single protein capacity produced with STED lithography. <i>Nano Letters</i> , 2013 , 13, 5672-5678	11.5	34
46	CdSe:Te Nanocrystals: Band-Edge versus Te-Related Emission. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 2974-2979	3.8	31
45	Ultrafast dynamics microscopy. <i>Applied Physics Letters</i> , 2000 , 77, 597-599	3.4	31
44	Competitive homogeneous digoxigenin immunoassay based on fluorescence quenching by gold nanoparticles. <i>Analytica Chimica Acta</i> , 2009 , 646, 119-22	6.6	29
43	Label free optical sensor for Avidin based on single gold nanoparticles functionalized with aptamers. <i>Journal of Biophotonics</i> , 2009 , 2, 227-31	3.1	27
42	Creating $\sqrt{3}$ focal holes with a Mach-Zehnder interferometer. <i>Applied Physics B: Lasers and Optics</i> , 2003 , 77, 11-17	1.9	27
41	Frequency domain photoacoustic and fluorescence microscopy. <i>Biomedical Optics Express</i> , 2016 , 7, 2692-702	3.92	26

40	Bone-forming cells with pronounced spread into the third dimension in polymer scaffolds fabricated by two-photon polymerization. <i>Journal of Biomedical Materials Research - Part A</i> , 2017 , 105, 891-899	5.4	23
39	Negative permittivity of ZnO thin films prepared from aluminum and gallium doped ceramics via pulsed-laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2013 , 110, 929-934	2.6	22
38	Plasmonic Horizon in Gold Nanosponges. <i>Nano Letters</i> , 2018 , 18, 1269-1273	11.5	20
37	Multiphoton-Polymerized 3D Protein Assay. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 1474-1479	9.5	20
36	Spasers with retardation and gain saturation: electrodynamic description of fields and optical cross-sections. <i>Optical Materials Express</i> , 2015 , 5, 2546	2.6	20
35	Functional photoresists for sub-diffraction stimulated emission depletion lithography. <i>Optical Materials Express</i> , 2017 , 7, 2538	2.6	19
34	Bioinspired polymer microstructures for directional transport of oily liquids. <i>Royal Society Open Science</i> , 2017 , 4, 160849	3.3	18
33	Dye-doped spheres with plasmonic semi-shells: Lasing modes and scattering at realistic gain levels. <i>Beilstein Journal of Nanotechnology</i> , 2013 , 4, 974-87	3	16
32	Dual Channel Microfluidics for Mimicking the Blood-Brain Barrier. <i>ACS Nano</i> , 2021 , 15, 2984-2993	16.7	16
31	Multi-photon structuring of native polymers: A case study for structuring natural proteins. <i>Engineering in Life Sciences</i> , 2013 , 13, 368-375	3.4	15
30	Optical properties of InN grown on Si(111) substrate. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010 , 207, 1066-1069	1.6	15
29	Streptavidin functionalized polymer nanodots fabricated by visible light lithography. <i>Journal of Nanobiotechnology</i> , 2015 , 13, 27	9.4	13
28	Sub-Microsecond Molecular Thermometry Using Thermal Spin Flips. <i>Advanced Materials</i> , 2004 , 16, 2170-2174	11.74	13
27	Minimal spaser threshold within electrodynamic framework: Shape, size and modes. <i>Annalen Der Physik</i> , 2016 , 528, 295-306	2.6	13
26	Reply to Comment on 'Gold Nanoshells Improve Single Nanoparticle Molecular Sensors' <i>Nano Letters</i> , 2005 , 5, 811-812	11.5	10
25	Hybrid Multilayered Plasmonic Nanostars for Coherent Random Lasing. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 23707-23715	3.8	10
24	Proteins on Supported Lipid Bilayers Diffusing around Proteins Fixed on Acrylate Anchors. <i>Analytical Chemistry</i> , 2018 , 90, 12372-12376	7.8	10
23	Fluorophore-Metal Nanoparticle Interactions and Their Applications in Biosensing 2012 , 395-427		9

22	Localization STED (LocSTED) microscopy with 15 nm resolution. <i>Nanophotonics</i> , 2020 , 9, 783-792	6.3	9
21	3D multiphoton lithography using biocompatible polymers with specific mechanical properties. <i>Nanoscale Advances</i> , 2020 , 2, 2422-2428	5.1	8
20	Localized-Plasmon Voltammetry to Detect pH Dependent Gold Oxidation. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 4565-4571	3.8	8
19	Streptavidin reduces oxygen quenching of biotinylated ruthenium(II) and palladium(II) complexes. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 12824-6	3.4	8
18	Power Balance and Temperature in Optically Pumped Spasers and Nanolasers. <i>ACS Photonics</i> , 2018 , 5, 3695-3703	6.3	7
17	Exploring Time-Resolved Multiphysics of Active Plasmonic Systems with Experiment-Based Gain Models. <i>Laser and Photonics Reviews</i> , 2019 , 13, 1800071	8.3	7
16	Spectral tuning of the phosphorescence from metalloporphyrins attached to gold nanorods. <i>Optics Express</i> , 2012 , 20, 19374-81	3.3	6
15	Gold Nanoislands Grown on Multiphoton Polymerized Structures as Substrate for Enzymatic Reactions 2019 , 1, 399-403		4
14	Plasmon-Assisted Direction- and Polarization-Sensitive Organic Thin-Film Detector. <i>Nanomaterials</i> , 2020 , 10,	5.4	4
13	Numerical modeling of active plasmonic metamaterials 2011 ,		3
12	Photodoping with CdSe nanocrystals as a tool to probe trap-state distributions in C60 crystals. <i>Applied Physics B: Lasers and Optics</i> , 2008 , 93, 239-243	1.9	3
11	Biofunctionalization of Sub-Diffractionally Patterned Polymer Structures by Photobleaching. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 31850-31854	9.5	3
10	Giant cross polarization in a nanoimprinted metamaterial combining a fishnet with its Babinet complement. <i>Optics Express</i> , 2015 , 23, 19034-46	3.3	2
9	STED lithography in microfluidics for 3D thrombocyte aggregation testing. <i>Journal of Nanobiotechnology</i> , 2021 , 19, 23	9.4	2
8	Frequency domain optical resolution photoacoustic and fluorescence microscopy using a modulated laser diode 2017 ,		1
7	Introduction to the Special Issue on Metamaterials. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 363-366	3.8	1
6	From low-loss to lossless optical negative-index materials 2006 ,		1
5	Time Resolved Fluorescence Measurements of Fluorophores Close to Metal Nanoparticles 2005 , 249-273		1

- 4 Optical Coulomb blockade lifting in plasmonic nanoparticle dimers. *Optics Express*, **2020**, 28, 4115-4126 3.3 1
- 3 STED controlled photobleaching for sub-diffractive optical nanopatterning. *JPhys Photonics*, **2020**, 2, 044003 2.5 1
- 2 Diffraction Resolution Barrier Fundamentally Broken in Far-Field Fluorescence Microscopy. *Optics and Photonics News*, **2000**, 11, 42 1.9
- 1 Metal Nanostructures and Active Materials. *Springer Proceedings in Physics*, **2013**, 171-202 0.2