Thomas A Klar

List of Publications by Year in Descending Order

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	STED lithography in microfluidics for 3D thrombocyte aggregation testing. *Journal of Nanobiotechnology*, **2021**, 19, 23	9.4	2
92	Dual Channel Microfluidics for Mimicking the Blood-Brain Barrier. *ACS Nano*, **2021**, 15, 2984-2993	16.7	16
91	3D multiphoton lithography using biocompatible polymers with specific mechanical properties. *Nanoscale Advances*, **2020**, 2, 2422-2428	5.1	8
90	Localization STED (LocSTED) microscopy with 15 nm resolution. *Nanophotonics*, **2020**, 9, 783-792	6.3	9
89	Optical Coulomb blockade lifting in plasmonic nanoparticle dimers. *Optics Express*, **2020**, 28, 4115-4126	3.3	1
88	STED controlled photobleaching for sub-diffractional optical nanopatterning. *JPhys Photonics*, **2020** , 2, 044003	2.5	1
87	Plasmon-Assisted Direction- and Polarization-Sensitive Organic Thin-Film Detector. *Nanomaterials*, **2020**, 10,	5.4	4
86	Gold Nanoislands Grown on Multiphoton Polymerized Structures as Substrate for Enzymatic Reactions **2019**, 1, 399-403		4
85	Exploring Time-Resolved Multiphysics of Active Plasmonic Systems with Experiment-Based Gain Models. *Laser and Photonics Reviews*, **2019**, 13, 1800071	8.3	7
84	Localized-Plasmon Voltammetry to Detect pH Dependent Gold Oxidation. *Journal of Physical Chemistry C*, **2018**, 122, 4565-4571	3.8	8
83	Plasmonic Horizon in Gold Nanosponges. *Nano Letters*, **2018**, 18, 1269-1273	11.5	20
82	Multiphoton-Polymerized 3D Protein Assay. *ACS Applied Materials & Interfaces*, **2018**, 10, 1474-1479	9.5	20
81	Power Balance and Temperature in Optically Pumped Spasers and Nanolasers. *ACS Photonics*, **2018**, 5, 3695-3703	6.3	7
80	Proteins on Supported Lipid Bilayers Diffusing around Proteins Fixed on Acrylate Anchors. *Analytical Chemistry*, **2018**, 90, 12372-12376	7.8	10
79	Biofunctionalization of Sub-Diffractionally Patterned Polymer Structures by Photobleaching. *ACS Applied Materials & Interfaces*, **2018**, 10, 31850-31854	9.5	3
78	Frequency domain optical resolution photoacoustic and fluorescence microscopy using a modulated laser diode **2017**,		1
77	Bioinspired polymer microstructures for directional transport of oily liquids. *Royal Society Open Science*, **2017**, 4, 160849	3.3	18

76	Bone-forming cells with pronounced spread into the third dimension in polymer scaffolds fabricated by two-photon polymerization. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 891-899	5.4	23
75	Functional photoresists for sub-diffraction stimulated emission depletion lithography. *Optical Materials Express*, **2017**, 7, 2538	2.6	19
74	Frequency domain photoacoustic and fluorescence microscopy. *Biomedical Optics Express*, **2016**, 7, 2692-702	3.9	26
73	Stimulated Emission Depletion Lithography with Mercapto-Functional Polymers. *ACS Nano*, **2016**, 10, 1954-9	16.7	36
72	Plasmonic Nanostars as Efficient Broadband Scatterers for Random Lasing. *ACS Photonics*, **2016**, 3, 919-923	6.3	42
71	Hybrid Multilayered Plasmonic Nanostars for Coherent Random Lasing. *Journal of Physical Chemistry C*, **2016**, 120, 23707-23715	3.8	10
70	Anticorrelation of Photoluminescence from Gold Nanoparticle Dimers with Hot-Spot Intensity. *Nano Letters*, **2016**, 16, 7203-7209	11.5	35
69	Performance Boost of Organic Light-Emitting Diodes with Plasmonic Nanostars. *Advanced Optical Materials*, **2016**, 4, 772-781	8.1	36
68	Minimal spaser threshold within electrodynamic framework: Shape, size and modes. *Annalen Der Physik*, **2016**, 528, 295-306	2.6	13
67	Gold nanostars for random lasing enhancement. *Optics Express*, **2015**, 23, 15152-9	3.3	44
66	Giant cross polarization in a nanoimprinted metamaterial combining a fishnet with its Babinet complement. *Optics Express*, **2015**, 23, 19034-46	3.3	2
65	Random Lasing with Systematic Threshold Behavior in Films of CdSe/CdS Core/Thick-Shell Colloidal Quantum Dots. *ACS Nano*, **2015**, 9, 9792-801	16.7	41
64	Optical Plasmons of Individual Gold Nanosponges. *ACS Photonics*, **2015**, 2, 1436-1442	6.3	39
63	Spasers with retardation and gain saturation: electrodynamic description of fields and optical cross-sections. *Optical Materials Express*, **2015**, 5, 2546	2.6	20
62	Streptavidin functionalized polymer nanodots fabricated by visible light lithography. *Journal of Nanobiotechnology*, **2015**, 13, 27	9.4	13
61	Sub-Abbe resolution: from STED microscopy to STED lithography. *Physica Scripta*, **2014**, T162, 014049	2.6	38
60	Nano-anchors with single protein capacity produced with STED lithography. *Nano Letters*, **2013**, 13, 5672-8	11.5	34
59	Spectral and directional reshaping of fluorescence in large area self-assembled plasmonic-photonic crystals. *Nano Letters*, **2013**, 13, 378-86	11.5	67

58	Negative permittivity of ZnO thin films prepared from aluminum and gallium doped ceramics via pulsed-laser deposition. *Applied Physics A: Materials Science and Processing*, **2013**, 110, 929-934	2.6	22
57	120 nm resolution and 55 nm structure size in STED-lithography. *Optics Express*, **2013**, 21, 10831-40	3.3	125
56	Multi-photon structuring of native polymers: A case study for structuring natural proteins. *Engineering in Life Sciences*, **2013**, 13, 368-375	3.4	15
55	Dye-doped spheres with plasmonic semi-shells: Lasing modes and scattering at realistic gain levels. *Beilstein Journal of Nanotechnology*, **2013**, 4, 974-87	3	16
54	Metal Nanostructures and Active Materials. *Springer Proceedings in Physics*, **2013**, 171-202	0.2	
53	Optical Sensing of Small Ions with Colloidal Nanoparticles. *Chemistry of Materials*, **2012**, 24, 738-745	9.6	52
52	Fluorophore Metal Nanoparticle Interactions and Their Applications in Biosensing **2012**, 395-427		9
51	Voltage-induced adsorbate damping of single gold nanorod plasmons in aqueous solution. *Nano Letters*, **2012**, 12, 1247-52	11.5	72
50	Spectral tuning of the phosphorescence from metalloporphyrins attached to gold nanorods. *Optics Express*, **2012**, 20, 19374-81	3.3	6
49	Numerical modeling of active plasmonic metamaterials **2011**,		3
48	DNA Melting in Gold Nanostove Clusters *Journal of Physical Chemistry C*, **2010**, 114, 7401-7411	3.8	46
47	Label-free biosensing based on single gold nanostars as plasmonic transducers. *ACS Nano*, **2010**, 4, 6318-22	12.7	263
46	Introduction to the Special Issue on Metamaterials. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 363-366	3.8	1
45	Properties and applications of colloidal nonspherical noble metal nanoparticles. *Advanced Materials* , **2010**, 22, 1805-25	24	809
44	Optical properties of InN grown on Si(111) substrate. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 1066-1069	1.6	15
43	Label free optical sensor for Avidin based on single gold nanoparticles functionalized with aptamers. *Journal of Biophotonics*, **2009**, 2, 227-31	3.1	27
42	Competitive homogeneous digoxigenin immunoassay based on fluorescence quenching by gold nanoparticles. *Analytica Chimica Acta*, **2009**, 646, 119-22	6.6	29
41	Long-range fluorescence quenching by gold nanoparticles in a sandwich immunoassay for cardiac troponin T. *Nano Letters*, **2009**, 9, 4558-63	11.5	178

40	Energy transfer with semiconductor nanocrystals. *Journal of Materials Chemistry*, **2009**, 19, 1208-1221		189
39	Fluorescence enhancement in hot spots of AFM-designed gold nanoparticle sandwiches. *Nano Letters*, **2008**, 8, 485-90	11.5	243
38	Energy Transfer in Solution-Based Clusters of CdTe Nanocrystals Electrostatically Bound by Calcium Ions. *Journal of Physical Chemistry C*, **2008**, 112, 14589-14594	3.8	58
37	Shaping emission spectra of fluorescent molecules with single plasmonic nanoresonators. *Physical Review Letters*, **2008**, 100, 203002	7.4	349
36	Streptavidin reduces oxygen quenching of biotinylated ruthenium(II) and palladium(II) complexes. *Journal of Physical Chemistry B*, **2008**, 112, 12824-6	3.4	8
35	Self-assembled binary superlattices of CdSe and Au nanocrystals and their fluorescence properties. *Journal of the American Chemical Society*, **2008**, 130, 3274-5	16.4	183
34	Charge separation in type II tunneling structures of close-packed CdTe and CdSe nanocrystals. *Nano Letters*, **2008**, 8, 1482-5	11.5	78
33	Photodoping with CdSe nanocrystals as a tool to probe trap-state distributions in C60 crystals. *Applied Physics B: Lasers and Optics*, **2008**, 93, 239-243	1.9	3
32	Type-I and type-II nanoscale heterostructures based on CdTe nanocrystals: a comparative study. *Small*, **2008**, 4, 1148-52	11	79
31	Gold nanostoves for microsecond DNA melting analysis. *Nano Letters*, **2008**, 8, 619-23	11.5	129
30	Moving nanoparticles with Raman scattering. *Nano Letters*, **2007**, 7, 2753-7	11.5	68
29	Bright White-Light Emission from Semiconductor Nanocrystals: by Chance and by Design. *Advanced Materials*, **2007**, 19, 569-572	24	222
28	CdSe:Te Nanocrystals: Band-Edge versus Te-Related Emission. *Journal of Physical Chemistry C*, **2007** , 111, 2974-2979	3.8	31
27	Aqueous Synthesis of Thiol-Capped CdTe Nanocrystals: State-of-the-Art. *Journal of Physical Chemistry C*, **2007**, 111, 14628-14637	3.8	645
26	Radiative and Nonradiative Rates of Phosphors Attached to Gold Nanoparticles. *Nano Letters*, **2007**, 7, 1941-1946	11.5	58
25	From low-loss to lossless optical negative-index materials **2006**,		1
24	Negative-Index Metamaterials: Going Optical. *IEEE Journal of Selected Topics in Quantum Electronics* , **2006**, 12, 1106-1115	3.8	97
23	Semiconductor nanocrystals photosensitize C60 crystals. *Nano Letters*, **2006**, 6, 1559-63	11.5	68

22	Negative index metamaterial combining magnetic resonators with metal films. *Optics Express*, **2006**, 14, 7872-7	3.3	85
21	Reply to Comment on Gold Nanoshells Improve Single Nanoparticle Molecular Sensors' *Nano Letters*, **2005**, 5, 811-812	11.5	10
20	Gold nanoparticles quench fluorescence by phase induced radiative rate suppression. *Nano Letters*, **2005**, 5, 585-9	11.5	658
19	High-rate unidirectional energy transfer in directly assembled CdTe nanocrystal bilayers. *Small*, **2005**, 1, 392-5	11	78
18	Time Resolved Fluorescence Measurements of Fluorophores Close to Metal Nanoparticles **2005**, 249-273		1
17	Sub-Microsecond Molecular Thermometry Using Thermal Spin Flips. *Advanced Materials*, **2004**, 16, 2170-2174	24	13
16	Exciton Recycling in Graded Gap Nanocrystal Structures. *Nano Letters*, **2004**, 4, 1599-1603	11.5	242
15	Gold Nanoshells Improve Single Nanoparticle Molecular Sensors. *Nano Letters*, **2004**, 4, 1853-1857	11.5	230
14	Fast energy transfer in layer-by-layer assembled CdTe nanocrystal bilayers. *Applied Physics Letters*, **2004**, 84, 2904-2906	3.4	115
13	Plasmon emission in photoexcited gold nanoparticles. *Physical Review B*, **2004**, 70,	3.3	342
12	Creating 3 focal holes with a Mach Zehnder interferometer. *Applied Physics B: Lasers and Optics*, **2003**, 77, 11-17	1.9	27
11	A Low Threshold Polymer Laser Based on Metallic Nanoparticle Gratings. *Advanced Materials*, **2003**, 15, 1726-1729	24	82
10	Biomolecular Recognition Based on Single Gold Nanoparticle Light Scattering. *Nano Letters*, **2003**, 3, 935-938	11.5	650
9	Fluorescence quenching of dye molecules near gold nanoparticles: radiative and nonradiative effects. *Physical Review Letters*, **2002**, 89, 203002	7.4	1048
8	Electrically controlled light scattering with single metal nanoparticles. *Applied Physics Letters*, **2002**, 81, 171-173	3.4	167
7	Breaking Abbe's diffraction resolution limit in fluorescence microscopy with stimulated emission depletion beams of various shapes. *Physical Review E*, **2001**, 64, 066613	2.4	183
6	Stimulated emission depletion microscopy with an offset depleting beam. *Applied Physics Letters*, **2001**, 78, 393-395	3.4	37
5	Fluorescence microscopy with diffraction resolution barrier broken by stimulated emission. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 8206-10	11.5	1286

4	Diffraction Resolution Barrier Fundamentally Broken in Far-Field Fluorescence Microscopy. *Optics and Photonics News*, **2000**, 11, 42	1.9	
3	Ultrafast dynamics microscopy. *Applied Physics Letters*, **2000**, 77, 597-599	3.4	31
2	Subdiffraction resolution in far-field fluorescence microscopy. *Optics Letters*, **1999**, 24, 954-6	3	591
1	Surface-Plasmon Resonances in Single Metallic Nanoparticles. *Physical Review Letters*, **1998**, 80, 4249-4252	7.4	681