Christian P WÃ¼rth

List of Publications by Year
in descending order

69 papers	4,711 citations	101384 36 h-index	102304 66 g-index
69 all docs	69 docs citations	69 times ranked	6071 citing authors

#	Article	IF	Citations
1	Volume and surface effects on two-photonic and three-photonic processes in dry co-doped upconversion nanocrystals. Nano Research, 2022, 15, 2362-2373.	5.8	3
2	Preparation of coreâ€“shell structured NaYF₄:Yb³⁺/Tm³⁺@NaYF₄:Yb³⁺/Er³⁺ nanoparticles with high sensitivity, low resolution and good reliability and application of their fluorescence temperature properties. CrystEngComm, 2022, 24, 1752-1763.	1.3	15
3	Tailoring the SWIR emission of gold nanoclusters by surface ligand rigidification and their application in 3D bioimaging. Chemical Communications, 2022, 58, 2967-2970.	2.2	10
4	Effect of Ca²⁺ doping on the upconversion luminescence properties of NaYF₄:Yb³⁺/Tm³⁺ nanoparticles and study of its temperature measurement performance. CrystEngComm, 2022, 24, 4887-4898.	1.3	5
5	Yb- and Er concentration dependence of the upconversion luminescence of highly doped NaYF4:Yb,Er/NaYF4:Lu core/shell nanocrystals prepared by a water-free synthesis. Nano Research, 2022, 15, 9639-9646.	5.8	14
6	Coreâ€“Shell NaYF₄:Yb³⁺/Tm³⁺@NaGdF₄:Ce³⁺/Eu³⁺ Nanoparticles for Upconversion and Downconversion Dual-Mode Fluorescence-Based Temperature Sensing. ACS Applied Nano Materials, 2022, 5, 9266-9276.	2.4	10
7	LiYF4:Yb/LiYF4 and LiYF4:Yb,Er/LiYF4 core/shell nanocrystals with luminescence decay times similar to YLF laser crystals and the upconversion quantum yield of the Yb,Er doped nanocrystals. Nano Research, 2021, 14, 797-806.	5.8	26
8	Multiband emission from single Î²-NaYF4(Yb,Er) nanoparticles at high excitation power densities and comparison to ensemble studies. Nano Research, 2021, 14, 4107-4115.	5.8	18
9	Enhanced Photon Upconversion Using Erbium-Doped Nanoparticles Interacting with Silicon Metasurfaces. , 2021, , .		0
10	Efficient Luminescent Solar Concentrators Based on Environmentally Friendly Cdâ€Free Ternary AIS/ZnS Quantum Dots. Advanced Optical Materials, 2021, 9, 2100587.	3.6	24
11	Metasurfaceâ€Enhanced Photon Upconversion upon 1550Ânm Excitation. Advanced Optical Materials, 2021, 9, 2101285.	3.6	7
12	Lumineszenzmessungen â€â€Standards und die Vergleichbarkeit der Ergebnisse. Nachrichten Aus Der Chemie, 2021, 69, 45-48.	0.0	0
13	Metasurface Enhanced Sensitized Photon Upconversion: Toward Highly Efficient Low Power Upconversion Applications and Nanoscale E-Field Sensors. Nano Letters, 2020, 20, 6682-6689.	4.5	26
14	Time-resolved luminescence spectroscopy for monitoring the stability and dissolution behaviour of upconverting nanocrystals with different surface coatings. Nanoscale, 2020, 12, 12589-12601.	2.8	19
15	Upconversion properties of SrF₂:Yb³⁺,Er³⁺ single crystals. Journal of Materials Chemistry C, 2020, 8, 4093-4101.	2.7	58
16	Efficient sub-15 nm cubic-phase core/shell upconversion nanoparticles as reporters for ensemble and single particle studies. Nanoscale, 2020, 12, 10592-10599.	2.8	10
17	Yb,Nd,Er-doped upconversion nanoparticles: 980 nm versus 808 nm excitation. Nanoscale, 2019, 11, 13440-13449.	2.8	78
18	Fluorescence Quantum Yield and Single-Particle Emission of CdSe Dot/CdS Rod Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 24338-24346.	1.5	10

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19	Sensitization of upconverting nanoparticles with a NIR-emissive cyanine dye using a micellar encapsulation approach. Methods and Applications in Fluorescence, 2019, 7, 014003.	1.1	22
20	Explaining the influence of dopant concentration and excitation power density on the luminescence and brightness of Î²-NaYF4:Yb3+,Er3+ nanoparticles: Measurements and simulations. Nano Research, 2019, 12, 1871-1879.	5.8	41
21	Simple Self-Referenced Luminescent pH Sensors Based on Upconversion Nanocrystals and pH-Sensitive Fluorescent BODIPY Dyes. Analytical Chemistry, 2019, 91, 7756-7764.	3.2	55
22	Colour-optimized quantum yields of Yb, Tm Co-doped upconversion nanocrystals. Methods and Applications in Fluorescence, 2019, 7, 024001.	1.1	20
23	On the decay time of upconversion luminescence. Nanoscale, 2019, 11, 4959-4969.	2.8	76
24	Inherently Broadband Photoluminescence in Agâ€“Inâ€“S/ZnS Quantum Dots Observed in Ensemble and Single-Particle Studies. Journal of Physical Chemistry C, 2019, 123, 2632-2641.	1.5	53
25	Quantum Yields, Surface Quenching, and Passivation Efficiency for Ultrasmall Core/Shell Upconverting Nanoparticles. Journal of the American Chemical Society, 2018, 140, 4922-4928.	6.6	185
26	A protected excitation-energy reservoir for efficient upconversion luminescence. Nanoscale, 2018, 10, 250-259.	2.8	41
27	Evolution of Size and Optical Properties of Upconverting Nanoparticles during High-Temperature Synthesis. Journal of Physical Chemistry C, 2018, 122, 28958-28967.	1.5	33
28	Synthesis of NIRâ€Emitting InAsâ€Based Core/Shell Quantum Dots with the Use of Tripyrazolylarsane as Arsenic Precursor. Particle and Particle Systems Characterization, 2018, 35, 1800175.	1.2	11
29	AufwÃ¤rtskonvertierende NaYF₄:Yb,Er/NaYF₄â€Kern/Schaleâ€Nanokristalle mit hoher Lumineszenzquantenausbeute. Angewandte Chemie, 2018, 130, 8901-8905.	1.6	10
30	NaYF₄:Yb,Er/NaYF₄ Core/Shell Nanocrystals with High Upconversion Luminescence Quantum Yield. Angewandte Chemie - International Edition, 2018, 57, 8765-8769.	7.2	298
31	Particle-size-dependent upconversion luminescence of NaYF4: Yb, Er nanoparticles in organic solvents and water at different excitation power densities. Nano Research, 2018, 11, 6360-6374.	5.8	84
32	Absolute upconversion quantum yields of blue-emitting LiYF₄:Yb³⁺,Tm³⁺ upconverting nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 22556-22562.	1.3	66
33	Excitation power dependent population pathways and absolute quantum yields of upconversion nanoparticles in different solvents. Nanoscale, 2017, 9, 4283-4294.	2.8	117
34	Excitation wavelength dependence of the photoluminescence quantum yield and decay behavior of CdSe/CdS quantum dot/quantum rods with different aspect ratios. Physical Chemistry Chemical Physics, 2017, 19, 12509-12516.	1.3	42
35	Power-dependent upconversion quantum yield of NaYF₄:Yb³⁺,Er³⁺ nano- and micrometer-sized particles â€“ measurements and simulations. Nanoscale, 2017, 9, 10051-10058.	2.8	132
36	Particle-Size-Dependent FÃ¶rster Resonance Energy Transfer from Upconversion Nanoparticles to Organic Dyes. Analytical Chemistry, 2017, 89, 4868-4874.	3.2	161

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37	Optically Detected Degradation of NaYF₄:Yb,Tm-Based Upconversion Nanoparticles in Phosphate Buffered Saline Solution. Langmuir, 2017, 33, 553-560.	1.6	55
38	Four- and Five-Component Syntheses and Photophysical Properties of Emission Solvatochromic 3-Aminovinylquinoxalines. Journal of Organic Chemistry, 2017, 82, 567-578.	1.7	32
39	Beam-profile-compensated quantum yield measurements of upconverting nanoparticles. Physical Chemistry Chemical Physics, 2017, 19, 22016-22022.	1.3	16
40	Bioimaging: Shaping Luminescent Properties of Yb³⁺ and Ho³⁺ Coâ€Doped Upconverting Coreâ€“Shell Î²â€NaYF₄ Nanoparticles by Dopant Distribution and Spacing (Small) Tj ETQq0 0 0 rgBT /Overlo	5.2	57
41	Shaping Luminescent Properties of Yb³⁺ and Ho³⁺ Coâ€Doped Upconverting Coreâ€“Shell Î²â€NaYF₄ Nanoparticles by Dopant Distribution and Spacing. Small, 2017, 13, 1701635.	5.2	57
42	Tuning the Surface of Nanoparticles: Impact of Poly(2â€ethylâ€2â€oxazoline) on Protein Adsorption in Serum and Cellular Uptake. Macromolecular Bioscience, 2016, 16, 1287-1300.	2.1	43
43	Industrially scalable and cost-effective Mn²⁺ doped Zn_xCd_{1âˆ’x}S/ZnS nanocrystals with 70% photoluminescence quantum yield, as efficient down-shifting materials in photovoltaics. Energy and Environmental Science, 2016, 9, 1083-1094.	15.6	63
44	Determination of Photoluminescence Quantum Yields of Scattering Media with an Integrating Sphere: Direct and Indirect Illumination. Applied Spectroscopy, 2015, 69, 749-759.	1.2	18
45	Quenching of the upconversion luminescence of NaYF₄:Yb³⁺,Er³⁺and NaYF₄:Yb³⁺,Tm³⁺nanophosphors by water: the role of the sensitizer Yb³⁺in non-radiative relaxation. Nanoscale, 2015, 7, 11746-11757.	2.8	267
46	Water dispersible upconverting nanoparticles: effects of surface modification on their luminescence and colloidal stability. Nanoscale, 2015, 7, 1403-1410.	2.8	210
47	Absolute photoluminescence quantum yields of IR26 and IR-emissive Cd_{1âˆ’x}Hg_xTe and PbS quantum dots â€“ method- and material-inherent challenges. Nanoscale, 2015, 7, 133-143.	2.8	74
48	Critical review of the determination of photoluminescence quantum yields of luminescent reporters. Analytical and Bioanalytical Chemistry, 2015, 407, 59-78.	1.9	70
49	Quantification of Anisotropy-Related Uncertainties in Relative Photoluminescence Quantum Yield Measurements of Nanomaterials â€“ Semiconductor Quantum Dots and Rods. Zeitschrift Fur Physikalische Chemie, 2015, 229, 153-165.	1.4	12
50	Relative and absolute determination of fluorescence quantum yields of transparent samples. Nature Protocols, 2013, 8, 1535-1550.	5.5	863
51	New Life of Ancient Pigments: Application in High-Performance Optical Sensing Materials. Analytical Chemistry, 2013, 85, 9371-9377.	3.2	72
52	Target-specific nanoparticles containing a broad band emissive NIR dye for the sensitive detection and characterization of tumor development. Biomaterials, 2013, 34, 160-170.	5.7	50
53	Fast and Reliable Measurement of Photoluminescence Quantum Yields forÂthe Development of Fluorescent Probes. Biophysical Journal, 2013, 104, 345a.	0.2	0
54	Integrating Sphere Setup for the Traceable Measurement of Absolute Photoluminescence Quantum Yields in the Near Infrared. Analytical Chemistry, 2012, 84, 1345-1352.	3.2	86

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55	Spectroscopic Characterization of Coumarin-Stained Beads: Quantification of the Number of Fluorophores Per Particle with Solid-State ¹⁹F-NMR and Measurement of Absolute Fluorescence Quantum Yields. Analytical Chemistry, 2012, 84, 3654-3661.	3.2	32
56	Determination of the absolute fluorescence quantum yield of rhodamine 6G with optical and photoacoustic methods â€“ Providing the basis for fluorescence quantum yield standards. Talanta, 2012, 90, 30-37.	2.9	107
57	Fluorescent magnetoliposomes as a platform technology for functional and molecular MR and optical imaging. Contrast Media and Molecular Imaging, 2012, 7, 59-67.	0.4	16
58	Scope and Limitations of Surface Functional Group Quantification Methods: Exploratory Study with Poly(acrylic acid)-Grafted Micro- and Nanoparticles. Journal of the American Chemical Society, 2012, 134, 8268-8276.	6.6	87
59	Simple strategies towards bright polymer particles via one-step staining procedures. Dyes and Pigments, 2012, 94, 247-257.	2.0	66
60	Synthesis and characterisation of highly fluorescent coreâ€“shell nanoparticles based on Alexa dyes. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	18
61	Fluorophoreâ€Labeled Siloxaneâ€Based Nanoparticles for Biomedical Applications. Macromolecular Symposia, 2011, 309-310, 141-146.	0.4	3
62	Targeted Luminescent Near-Infrared Polymer-Nanoprobes for In Vivo Imaging of Tumor Hypoxia. Analytical Chemistry, 2011, 83, 9039-9046.	3.2	122
63	Femtosecond broadband fluorescence upconversion spectroscopy: Improved setup and photometric correction. Review of Scientific Instruments, 2011, 82, 063108.	0.6	81
64	Comparison of Methods and Achievable Uncertainties for the Relative and Absolute Measurement of Photoluminescence Quantum Yields. Analytical Chemistry, 2011, 83, 3431-3439.	3.2	169
65	Encapsulation of Hydrophobic Dyes in Polystyrene Micro- and Nanoparticles via Swelling Procedures. Journal of Fluorescence, 2011, 21, 937-944.	1.3	99
66	Polymer-and Glass-based Fluorescence Standards for the Near Infrared (NIR) Spectral Region. Journal of Fluorescence, 2011, 21, 953-961.	1.3	11
67	The toolbox of fluorescence standards: flexible calibration tools for the standardization of fluorescence-based measurements. Proceedings of SPIE, 2010, , .	0.8	2
68	Evaluation of a Commercial Integrating Sphere Setup for the Determination of Absolute Photoluminescence Quantum Yields of Dilute Dye Solutions. Applied Spectroscopy, 2010, 64, 733-741.	1.2	68
69	Mechanistic insights into seeded growth processes of gold nanoparticles. Nanoscale, 2010, 2, 2463.	2.8	49