Frank C J M Van Veggel

List of Publications by Year
in descending order

75 papers	6,565 citations	76196 40 h-index	82410 72 g-index
77 all docs	77 docs citations	77 times ranked	6888 citing authors

#	Article	IF	Citations
1	Absolute quantum yield measurements of colloidal NaYF4: Er3+, Yb3+ upconverting nanoparticles. Nanoscale, 2010, 2, 1417.	2.8	785
2	Near-infrared Emission of Redispersible Er3+, Nd3+, and Ho3+ Doped LaF3 Nanoparticles. Nano Letters, 2002, 2, 733-737.	4.5	750
3	Size-Tunable, Ultrasmall NaGdF₄ Nanoparticles: Insights into Their T₁ MRI Contrast Enhancement. Chemistry of Materials, 2011, 23, 3714-3722.	3.2	396
4	Self-Focusing by Ostwald Ripening: A Strategy for Layer-by-Layer Epitaxial Growth on Upconverting Nanocrystals. Journal of the American Chemical Society, 2012, 134, 11068-11071.	6.6	334
5	A Systematic Study of the Photophysical Processes in Polydentate Triphenylene-Functionalized Eu3+, Tb3+, Nd3+, Yb3+, and Er3+Complexes. Journal of Physical Chemistry A, 2000, 104, 5457-5468.	1.1	331
6	Lanthanide-Doped Nanoparticles with Excellent Luminescent Properties in Organic Media. Chemistry of Materials, 2003, 15, 4604-4616.	3.2	319
7	Surface Eu3+ions are different than â€œbulkâ€•Eu3+ions in crystalline doped LaF3nanoparticles. Journal of Materials Chemistry, 2005, 15, 1332-1342.	6.7	213
8	Facile ligand-exchange with polyvinylpyrrolidone and subsequent silica coating of hydrophobic upconverting Î²-NaYF4:Yb3+/Er3+ nanoparticles. Nanoscale, 2010, 2, 771.	2.8	189
9	Cation Exchange: A Facile Method To Make NaYF₄:Yb,Tm-NaGdF₄ Coreâ€"Shell Nanoparticles with a Thin, Tunable, and Uniform Shell. Chemistry of Materials, 2012, 24, 1297-1305.	3.2	151
10	Functionalization of self-assembled monolayers on glass and oxidized silicon wafers by surface reactions. Journal of Physical Organic Chemistry, 2001, 14, 407-415.	0.9	148
11	Two-Photon Upconversion Laser (Scanning and Wide-Field) Microscopy Using Ln³⁺-Doped NaYF₄ Upconverting Nanocrystals: A Critical Evaluation of their Performance and Potential in Bioimaging. Journal of Physical Chemistry C, 2011, 115, 19054-19064.	1.5	146
12	NaDyF₄ Nanoparticles as T₂ Contrast Agents for Ultrahigh Field Magnetic Resonance Imaging. Journal of Physical Chemistry Letters, 2012, 3, 524-529.	2.1	144
13	Analysis of the Shell Thickness Distribution on NaYF₄/NaGdF₄ Core/Shell Nanocrystals by EELS and EDS. Journal of Physical Chemistry Letters, 2011, 2, 185-189.	2.1	121
14	Monolayer of a Na+-Selective Fluoroionophore on Glass:Â Connecting the Fields of Monolayers and Optical Detection of Metal Ions. Journal of the American Chemical Society, 2000, 122, 6112-6113.	6.6	116
15	Polymer-Stabilized Lanthanide Fluoride Nanoparticle Aggregates as Contrast Agents for Magnetic Resonance Imaging and Computed Tomography. Chemistry of Materials, 2010, 22, 4728-4739.	3.2	114
16	Self-Assembled Monolayers of Heptapodant Î²-Cyclodextrins on Gold. Langmuir, 1998, 14, 6424-6429.	1.6	113
17	General and Convenient Method for Making Highly Luminescent Solâ˘'Gel Derived Silica and Alumina Films by Using LaF3Nanoparticles Doped with Lanthanide Ions (Er3+, Nd3+, and Ho3+). Chemistry of Materials, 2005, 17, 4736-4742.	3.2	106
18	Highly Photoluminescent PbS Nanocrystals: The Beneficial Effect of Trioctylphosphine. Chemistry of Materials, 2008, 20, 3794-3796.	3.2	101

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19	Sensitized Near-Infrared Emission from Nd3+ and Er3+ Complexes of Fluorescein-Bearing Calix[4]arene Cages. Chemistry - A European Journal, 1998, 4, 772-780.	1.7	100
20	Recognition of Cations by Self-Assembled Monolayers of Crown Ethers. Journal of Physical Chemistry B, 1999, 103, 6515-6520.	1.2	97
21	Applications of Nanoparticles for MRI Cancer Diagnosis and Therapy. Journal of Nanomaterials, 2013, 2013, 1-12.	1.5	93
22	Water-Soluble Ln3+-Doped LaF3 Nanoparticles: Retention of Strong Luminescence and Potential as Biolabels. Journal of Fluorescence, 2005, 15, 543-551.	1.3	90
23	Ln3+-doped nanoparticles for upconversion and magnetic resonance imaging: some critical notes on recent progress and some aspects to be considered. Nanoscale, 2012, 4, 7309.	2.8	85
24	Sodium lanthanide fluoride core-shell nanocrystals: A general perspective on epitaxial shell growth. Nano Research, 2013, 6, 547-561.	5.8	85
25	New, Accurate Lennard-Jones Parameters for Trivalent Lanthanide Ions, Tested on [18]Crown-6. Chemistry - A European Journal, 1999, 5, 90-95.	1.7	83
26	Near-Infrared Quantum Dots and Their Delicate Synthesis, Challenging Characterization, and Exciting Potential Applications. Chemistry of Materials, 2014, 26, 111-122.	3.2	79
27	Lanthanum Silicate and Lanthanum Zirconate Nanoparticles Co-Doped with Ho³⁺ and Yb³⁺: Matrix-Dependent Red and Green Upconversion Emissions. Journal of Physical Chemistry C, 2009, 113, 14702-14707.	1.5	76
28	Significant Suppression of Spontaneous Emission in SiO2Photonic Crystals Made with Tb3+-Doped LaF3Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 4047-4051.	1.5	73
29	Upconverting core-shell nanocrystals with high quantum yield under low irradiance: On the role of isotropic and thick shells. Journal of Applied Physics, 2015, 118, .	1.1	73
30	Lanthanide-Based Heteroepitaxial Coreâ€“Shell Nanostructures: Compressive versus Tensile Strain Asymmetry. ACS Nano, 2014, 8, 10517-10527.	7.3	71
31	Design and Regulation of NaHoF₄ and NaDyF₄ Nanoparticles for High-Field Magnetic Resonance Imaging. Chemistry of Materials, 2016, 28, 3060-3072.	3.2	65
32	Fluorescent dyes as efficient photosensitizers for near-infrared Nd3+ emission. Perkin Transactions II RSC, 2001, , 363-372.	1.1	58
33	Nonstatistical Dopant Distribution of Ln³⁺-Doped NaGdF₄ Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 15950-15958.	1.5	57
34	Four-Fold Enhancement of the Activation Energy for Nonradiative Decay of Excitons in PbSe/CdSe Core/Shell versus PbSe Colloidal Quantum Dots. Journal of Physical Chemistry Letters, 2010, 1, 2334-2338.	2.1	56
35	Kinetically Determined Crystal Structures of Undoped and La3+-Doped LnF3. Journal of Physical Chemistry C, 2009, 113, 472-478.	1.5	51
36	Probing the Structure of Colloidal Core/Shell Quantum Dots Formed by Cation Exchange. Journal of Physical Chemistry C, 2012, 116, 3968-3978.	1.5	48

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37	Conformational Distribution of Tetramethoxycalix[4]arenes by Molecular Modeling and NMR Spectroscopy:Â A Study of Apolar Solvation. Journal of Organic Chemistry, 1998, 63, 1299-1308.	1.7	47
38	Self-Assembled Monolayers of Cavitand Receptors for the Binding of Neutral Molecules in Water. Langmuir, 1998, 14, 5457-5463.	1.6	44
39	Surface-Confined Metallodendrimers: Isolated Nanosize Molecules. Angewandte Chemie - International Edition, 1999, 38, 2248-2251.	7.2	43
40	Up-conversion of 980 nm light into white light from sol-gel derived thin film made with new combinations of LaF3:Ln3+ nanoparticles. Journal of Materials Chemistry, 2009, 19, 2392.	6.7	40
41	Conformational Characterization of Eu3+-Doped LaF3Coreâ˘'Shell Nanoparticles through Luminescence Anisotropy Studies. Journal of Physical Chemistry C, 2007, 111, 4529-4534.	1.5	36
42	Blue Electroluminescence from Eu²⁺-Doped GaN@SiO₂ Nanostructures Tuned to Industrial Standards. Chemistry of Materials, 2011, 23, 4817-4823.	3.2	30
43	The Conformational Distributions and Interconversions of Partially Methylated Calix[4]arenes. Journal of Physical Chemistry A, 1998, 102, 1130-1138.	1.1	29
44	Cascaded Plasmon-Enhanced Emission from a Single Upconverting Nanocrystal. ACS Photonics, 2019, 6, 1125-1131.	3.2	26
45	Isolating Nanocrystals with an Individual Erbium Emitter: A Route to a Stable Single-Photon Source at 1550 nm Wavelength. Nano Letters, 2020, 20, 1018-1022.	4.5	26
46	Exciton thermalization and state broadening contributions to the photoluminescence of colloidal PbSe quantum dot films from 295 to 4.5 K. Physical Review B, 2010, 82, .	1.1	24
47	Complexation Properties of Preorganized Receptor Molecules for Large, Neutral Guests. Liebigs Annalen, 1997, 1997, 1577-1586.	0.8	23
48	Cation sensing by patterned self-assembled monolayers on gold. Perkin Transactions II RSC, 2000, , 2141-2146.	1.1	22
49	Local Structure of Rare-Earth Fluorides in Bulk and Core/Shell Nanocrystalline Materials. Chemistry of Materials, 2015, 27, 6495-6507.	3.2	21
50	Harvesting Dual-Wavelength Excitation with Plasmon-Enhanced Emission from Upconverting Nanoparticles. ACS Photonics, 2018, 5, 3507-3512.	3.2	21
51	Validation of Inner, Second, and Outer Sphere Contributions to T₁ and T₂ Relaxation in Gd³⁺-Based Nanoparticles Using Eu³⁺ Lifetime Decay as a Probe. Journal of Physical Chemistry C, 2018, 122, 11557-11569.	1.5	19
52	Red, Green, and Blue Light Through Cooperative Up-Conversion in Sol-Gel Thin Films Made With ${hbox{Yb}}_{0.80}{hbox{La}}_{0.15}{hbox{Tb}}_{0.05}{hbox{F}}_{3}$ and ${hbox{Yb}}_{0.80}{hbox{La}}_{0.15}{hbox{Eu}}_{0.05}{hbox{F}}_{3}$ Nanoparticles. Journal of Display Technology, 2007, 3, 176-183.	1.3	18
53	Biscalix[4]arene Ligands for <i>Dinuclear</i> Lanthanide Ion Complexation. Liebigs Annalen, 1997, 1997, 2587-2600.	0.8	17
54	Resonant Plasmon-Enhanced Upconversion in Monolayers of Coreâ€"Shell Nanocrystals: Role of Shell Thickness. ACS Applied Materials & Interfaces, 2019, 11, 1209-1218.	4.0	17

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55	Colloidally Stable Monodisperse Fe Nanoparticles as <i>T</i>₂ Contrast Agents for High-Field Clinical and Preclinical Magnetic Resonance Imaging. ACS Applied Nano Materials, 2021, 4, 1235-1242.	2.4	14
56	Isolating and enhancing single-photon emitters for 1550Ânm quantum light sources using double nanohole optical tweezers. Journal of Chemical Physics, 2021, 154, 184204.	1.2	14
57	Photon-counting computed tomography of lanthanide contrast agents with a high-flux 330-Î¼m-pitch cadmium zinc telluride detector in a table-top system. Journal of Medical Imaging, 2020, 7, 1.	0.8	13
58	Molecular Dynamics and FEP Monte Carlo Studies of Calix[4]arene-Derived Complexes of Eu3+:â€‰ The Role of the Counterions Investigated. Journal of Physical Chemistry A, 1997, 101, 2755-2765.	1.1	12
59	Photoluminescence dynamics in solid formulations of colloidal PbSe quantum dots: Three-dimensional versus two-dimensional films. Applied Physics Letters, 2012, 101, 121904.	1.5	11
60	Optical and structural characterization of blue-emitting Mg2+- and Zn2+-doped GaN nanoparticles. Journal of Materials Chemistry, 2009, 19, 3889.	6.7	10
61	Shell versus Core Dy³⁺ Contributions to NMR Water Relaxation in Sodium Lanthanide Fluoride Coreâ€“Shell Nanoparticles. An Investigation Using O-17 and H-1 NMR. Journal of Physical Chemistry C, 2017, 121, 17552-17558.	1.5	8
62	Synthesis of (Hemi)Carceplex Adsorbates for Self-Assembly on Gold. European Journal of Organic Chemistry, 2000, 2000, 269-274.	1.2	7
63	Polarization-dependent extraordinary optical transmission from upconversion nanoparticles. Nanoscale, 2015, 7, 18250-18258.	2.8	6
64	Halide-, Hybrid-, and Perovskite-Functionalized Light Absorbing Quantum Materials of pâ€“iâ€“n Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 30283-30295.	4.0	6
65	Target-Specific Magnetic Resonance Imaging of Human Prostate Adenocarcinoma Using NaDyF4â€“NaGdF4 Coreâ€“Shell Nanoparticles. ACS Applied Materials & Interfaces, 2021, 13, 24345-24355.	4.0	6
66	High-field magnetic resonance imaging: Challenges, advantages, and opportunities for novel contrast agents. Chemical Physics Reviews, 2022, 3, .	2.6	6
67	Self-assembled monolayers of metallosalophenes on gold. Israel Journal of Chemistry, 2000, 40, 73-80.	1.0	5
68	MOLECULAR MODELING OF CALIXARENES AND THEIR HOST-GUEST COMPLEXES. , 2000, , 11-36.		4
69	InN@SiO2Nanomaterials as New Blue Light Emitters. European Journal of Inorganic Chemistry, 2008, 2008, 3728-3732.	1.0	4
70	Sensitized Near-Infrared Emission from Nd3+ and Er3+ Complexes of Fluorescein-Bearing Calix[4]arene Cages. , 1998, 4, 772.		3
71	Temperature Dependence of FÃ¶rster Thermalization and Population Decay in PbSe Nanocrystals. Journal of Physical Chemistry C, 2014, 118, 1377-1385.	1.5	2
72	Kinetic analysis of the temperature dependence of PbSe colloidal quantum dot photoluminescence: Effects of synthesis process and oxygen exposure. Physical Review B, 2014, 89, .	1.1	1

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73	Siteâ€specific conjugation of the quencher on peptide's Nâ€terminal for the synthesis of a targeted nonâ€spreading activatable optical probe. Journal of Peptide Science, 2016, 22, 415-420.	0.8	1
74	Sub-10 nm Gold Nanoarrays for Tethering Single Molecules. Materials Research Society Symposia Proceedings, 2001, 676, 441.	0.1	0
75	Upconversion nanocrystal emission rate enhancement using double nanoholes. , 2021, , .		0