John A Capobianco

List of Publications by Year
in descending order

102	12,401	47006 47	32842 100
papers	citations	h-index	g-index

105	105	105	9373
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Temperature Sensing Using Fluorescent Nanothermometers. ACS Nano, 2010, 4, 3254-3258.	14.6	1,284
2	Synthesis of Colloidal Upconverting NaYF4Nanocrystals Doped with Er3+, Yb3+and Tm3+, Yb3+via Thermal Decomposition of Lanthanide Trifluoroacetate Precursors. Journal of the American Chemical Society, 2006, 128, 7444-7445.	13.7	978
3	Synthesis of Ligand-Free Colloidally Stable Water Dispersible Brightly Luminescent Lanthanide-Doped Upconverting Nanoparticles. Nano Letters, 2011, 11, 835-840.	9.1	714
4	Synthesis of Colloidal Upconverting NaYF₄:â€‰ Er³⁺/Yb³⁺ and Tm³⁺/Yb³⁺ Monodisperse Nanocrystals. Nano Letters, 2007, 7, 847-852.	9.1	693
5	The Activeâ€Core/Activeâ€Shell Approach: A Strategy to Enhance the Upconversion Luminescence in Lanthanideâ€Doped Nanoparticles. Advanced Functional Materials, 2009, 19, 2924-2929.	14.9	677
6	Upconverting nanoparticles: assessing the toxicity. Chemical Society Reviews, 2015, 44, 1561-1584.	38.1	520
7	Significance of Yb3+ concentration on the upconversion mechanisms in codoped Y2O3:Er3+, Yb3+ nanocrystals. Journal of Applied Physics, 2004, 96, 661-667.	2.5	514
8	Colloidal Tm³⁺/Yb³⁺â€Doped LiYF₄ Nanocrystals: Multiple Luminescence Spanning the UV to NIR Regions via Lowâ€Energy Excitation. Advanced Materials, 2009, 21, 4025-4028.	21.0	400
9	NIR-to-NIR Two-Photon Excited CaF₂:Tm³⁺,Yb³⁺ Nanoparticles: Multifunctional Nanoprobes for Highly Penetrating Fluorescence Bio-Imaging. ACS Nano, 2011, 5, 8665-8671.	14.6	381
10	Controlled Synthesis and Water Dispersibility of Hexagonal Phase NaGdF₄:Ho³⁺/Yb³⁺ Nanoparticles. Chemistry of Materials, 2009, 21, 717-723.	6.7	357
11	Lanthanide-Doped Na_xScF_{3+x} Nanocrystals: Crystal Structure Evolution and Multicolor Tuning. Journal of the American Chemical Society, 2012, 134, 8340-8343.	13.7	315
12	Photon upconversion nanomaterials. Chemical Society Reviews, 2015, 44, 1299-1301.	38.1	312
13	Concentration-Dependent Near-Infrared to Visible Upconversion in Nanocrystalline and Bulk Y2O3:Er3+. Chemistry of Materials, 2003, 15, 2737-2743.	6.7	290
14	CdSe Quantum Dots for Two-Photon Fluorescence Thermal Imaging. Nano Letters, 2010, 10, 5109-5115.	9.1	276
15	Enhancement of Red Emission (4F9/2 â†' 4I15/2) via Upconversion in Bulk and Nanocrystalline Cubic Y2O3:Er3+. Journal of Physical Chemistry B, 2002, 106, 1181-1187.	2.6	272
16	Effect of Yb3+ Codoping on the Upconversion Emission in Nanocrystalline Y2O3:Er3+. Journal of Physical Chemistry B, 2003, 107, 1107-1112.	2.6	232
17	Near-Infrared-to-Blue Upconversion in Colloidal BaYF₅:Tm³⁺, Yb³⁺ Nanocrystals. Chemistry of Materials, 2009, 21, 1847-1851.	6.7	230
18	Intracellular imaging of HeLa cells by non-functionalized NaYF4â€‰:â€‰Er³⁺, Yb³⁺upconverting nanoparticles. Nanoscale, 2010, 2, 495-498.	5.6	179

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19	A Spectroscopic Analysis of Blue and Ultraviolet Upconverted Emissions from Gd3Ga5O12:Tm3+, Yb3+Nanocrystals. Journal of Physical Chemistry B, 2005, 109, 17400-17405.	2.6	177
20	980 nm excited upconversion in an Er-doped ZnOâ€“TeO2 glass. Applied Physics Letters, 2002, 80, 1752-1754.	3.3	167
21	Water dispersible ultra-small multifunctional KGdF4:Tm3+, Yb3+ nanoparticles with near-infrared to near-infrared upconversion. Journal of Materials Chemistry, 2011, 21, 16589.	6.7	161
22	Synthesis, Characterization, and Spectroscopy of NaGdF4:â€‰ Ce3+, Tb3+/NaYF4 Core/Shell Nanoparticles. Chemistry of Materials, 2007, 19, 3358-3360.	6.7	153
23	Bright White Upconversion Emission from Tm³⁺/Yb³⁺/Er³⁺-Doped Lu₃Ga₅O₁₂ Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 17745-17749.	3.1	148
24	Persistent and Photostimulated Red Emission in CaS:Eu²⁺,Dy³⁺ Nanophosphors. Advanced Optical Materials, 2015, 3, 551-557.	7.3	146
25	The Fluoride Host: Nucleation, Growth, and Upconversion of Lanthanideâ€Doped Nanoparticles. Advanced Optical Materials, 2015, 3, 482-509.	7.3	128
26	CdTe Quantum Dots as Nanothermometers: Towards Highly Sensitive Thermal Imaging. Small, 2011, 7, 1774-1778.	10.0	127
27	NIR to Visible Upconversion in Nanocrystalline and Bulk Lu2O3:Er3+. Journal of Physical Chemistry B, 2002, 106, 5622-5628.	2.6	123
28	Lanthanide-doped fluoride nanoparticles: luminescence, upconversion, and biological applications. International Journal of Nanotechnology, 2008, 5, 1306.	0.2	108
29	Smart Self-Assembled Nanosystem Based on Water-Soluble Pillararene and Rare-Earth-Doped Upconversion Nanoparticles for pH-Responsive Drug Delivery. ACS Applied Materials & Interfaces, 2018, 10, 4910-4920.	8.0	104
30	Carbohydrate-coated lanthanide-doped upconverting nanoparticles for lectin recognition. Journal of Materials Chemistry, 2010, 20, 7543.	6.7	98
31	Thermal Properties of Lipid Bilayers Determined Using Upconversion Nanothermometry. Advanced Functional Materials, 2019, 29, 1905474.	14.9	96
32	Bio-functionalization of ligand-free upconverting lanthanide doped nanoparticles for bio-imaging and cell targeting. Nanoscale, 2012, 4, 3647.	5.6	94
33	Enhancing upconverted white light in Tm^3+/Yb^3+/Ho^3+-doped GdVO_4 nanocrystals via incorporation of Li^+ ions. Optics Express, 2012, 20, 111.	3.4	87
34	Structural and optical investigation of colloidal Ln3+/Yb3+ co-doped KY3F10 nanocrystals. Journal of Materials Chemistry, 2009, 19, 3149.	6.7	84
35	Recent insights into upconverting nanoparticles: spectroscopy, modeling, and routes to improved luminescence. Nanoscale, 2019, 11, 12015-12029.	5.6	83
36	Nanoparticles for highly efficient multiphoton fluorescence bioimaging. Optics Express, 2010, 18, 23544.	3.4	77

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37	The near-IR photo-stimulated luminescence of CaS:Eu2+/Dy3+nanophosphors. Journal of Materials Chemistry C, 2014, 2, 228-231.	5.5	70
38	Energy Migration Control of Multimodal Emissions in an Er³⁺â€Doped Nanostructure for Information Encryption and Deepâ€Learning Decoding. Angewandte Chemie - International Edition, 2021, 60, 23790-23796.	13.8	67
39	Absolute upconversion quantum yields of blue-emitting LiYF₄:Yb³⁺,Tm³⁺ upconverting nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 22556-22562.	2.8	66
40	Sensitized Ce³⁺ and Gd³⁺ Ultraviolet Emissions by Tm³⁺ in Colloidal LiYF₄ Nanocrystals. Chemistry - A European Journal, 2009, 15, 9660-9663.	3.3	63
41	High Relaxivities and Strong Vascular Signal Enhancement for NaGdF₄ Nanoparticles Designed for Dual MR/Optical Imaging. Advanced Healthcare Materials, 2013, 2, 1478-1488.	7.6	63
42	Dual Activity of Rose Bengal Functionalized to Albumin-Coated Lanthanide-Doped Upconverting Nanoparticles: Targeting and Photodynamic Therapy. ACS Applied Materials & Interfaces, 2018, 10, 26947-26953.	8.0	62
43	Luminescence Spectroscopy and Near-Infrared to Visible Upconversion of Nanocrystalline Gd3Ga5O12:Er3+. Journal of Physical Chemistry B, 2003, 107, 10747-10752.	2.6	60
44	Photoswitching of bis-spiropyran using near-infrared excited upconverting nanoparticles. Chemical Communications, 2012, 48, 7244.	4.1	55
45	Enhancing the color purity of the green upconversion emission from Er3+/Yb3+-doped GdVO4 nanocrystals via tuning of the sensitizer concentration. Journal of Materials Chemistry C, 2013, 1, 6536.	5.5	55
46	High Resolution Fluorescence Imaging of Cancers Using Lanthanide Ion-Doped Upconverting Nanocrystals. Cancers, 2012, 4, 1067-1105.	3.7	53
47	Superoxide Dismutase Targets NO from GSNO to CysÎ²93 of Oxyhemoglobin in Concentrated but Not Dilute Solutions of the Protein. Journal of the American Chemical Society, 2003, 125, 14370-14378.	13.7	47
48	Nanostructured Lanthanide-Doped Lu2O3Obtained by Propellant Synthesis. Chemistry of Materials, 2004, 16, 1330-1335.	6.7	47
49	Near infrared light mediated release of doxorubicin using upconversion nanoparticles. Chemical Communications, 2015, 51, 8477-8479.	4.1	47
50	Counting the Photons: Determining the Absolute Storage Capacity of Persistent Phosphors. Materials, 2017, 10, 867.	2.9	47
51	Metal content of Sphagnum mosses from two Northern Canadian bog ecosystems. Water, Air, and Soil Pollution, 1978, 10, 215-220.	2.4	43
52	Lanthanideâ€Doped Upconverting Nanoparticles: Harvesting Light for Solar Cells. ChemSusChem, 2013, 6, 1308-1311.	6.8	35
53	Metal Chelators Inhibit S-Nitrosation of CysÎ²93 in Oxyhemoglobin. Journal of the American Chemical Society, 2001, 123, 1782-1783.	13.7	34
54	Optical spectroscopy of lanthanide ions in Al2O3â€“Nb2O5â€“TeO2 glasses. Optical Materials, 2004, 25, 215-222.	3.6	32

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55	Structure of NaYF₄ Upconverting Nanoparticles: A Multinuclear Solid-State NMR and DFT Computational Study. Journal of Physical Chemistry C, 2013, 117, 25733-25741.	3.1	32
56	A NIR-responsive azobenzene-based supramolecular hydrogel using upconverting nanoparticles. Chemical Communications, 2018, 54, 5847-5850.	4.1	31
57	Radioluminescence studies of colloidal oleate-capped Î²-Na(Gd,Lu)F₄:Ln³⁺ nanoparticles (Ln = Ce, Eu, Tb). Nanoscale, 2018, 10, 7821-7832.	5.6	30
58	Luminescence resonance energy transfer from an upconverting nanoparticle to a fluorescent phycobiliprotein. Nanoscale, 2010, 2, 1185.	5.6	29
59	A Route to Triggered Delivery via Photocontrol of Lipid Bilayer Properties Using Lanthanide Upconversion Nanoparticles. ACS Applied Nano Materials, 2018, 1, 5345-5354.	5.0	27
60	Formation of a Supported Lipid Bilayer on Faceted LiYF₄:Tm³⁺/Yb³⁺ Upconversion Nanoparticles. Particle and Particle Systems Characterization, 2016, 33, 865-870.	2.3	26
61	Optically Stimulated Nanodosimeters with High Storage Capacity. Nanomaterials, 2019, 9, 1127.	4.1	26
62	Perspective: lanthanide-doped upconverting nanoparticles. Methods and Applications in Fluorescence, 2019, 7, 012004.	2.3	26
63	Intrinsic Timeâ€Tunable Emissions in Coreâ€“Shell Upconverting Nanoparticle Systems. Angewandte Chemie - International Edition, 2019, 58, 9742-9751.	13.8	24
64	Double-Sensitive Drug Release System Based on MnO₂ Assembled Upconversion Nanoconstruct for Double-Model Guided Chemotherapy. ACS Applied Nano Materials, 2018, 1, 1648-1656.	5.0	23
65	A theoretical study of trivalent lanthanide ion microsolvation in water clusters from first principles. International Journal of Mass Spectrometry, 2005, 241, 283-294.	1.5	21
66	Heme Nitrosylation of Deoxyhemoglobin byS-Nitrosoglutathione Requires Copper. Journal of Biological Chemistry, 2002, 277, 24135-24141.	3.4	20
67	Notes. Trace element content of northern Ontario peat. Environmental Science & Technology, 1982, 16, 187-188.	10.0	19
68	Modulating Photo- and Radioluminescence in Tb(III) Cluster-Based Metalâ€“Organic Frameworks. , 2022, 4, 1025-1031.		19
69	Photoluminescent nanoplatforms in biomedical applications. Advances in Physics: X, 2016, 1, 194-225.	4.1	18
70	Luminescence dynamics and enhancement of the UV and visible emissions of Tm³⁺ in LiYF₄:Yb³⁺,Tm³⁺ upconverting nanoparticles. Nanoscale Advances, 2019, 1, 4492-4500.	4.6	18
71	Thermal properties of lipid bilayers derived from the transient heating regime of upconverting nanoparticles. Nanoscale, 2020, 12, 24169-24176.	5.6	18
72	Evaluation of Lanthanide-Doped Upconverting Nanoparticles for in Vitro and in Vivo Applications. ACS Applied Bio Materials, 2020, 3, 4358-4369.	4.6	18

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73	Upconversion in Er3+-doped Gd2O3 nanocrystals prepared by propellant synthesis and flame spray pyrolysis. Materials Research Bulletin, 2010, 45, 927-932.	5.2	17
74	Wet chemical synthesis and luminescence properties of erbium-doped nanocrystalline yttrium oxide. Journal of Materials Research, 2004, 19, 3398-3407.	2.6	16
75	The effects of lanthanide-doped upconverting nanoparticles on cancer cell biomarkers. Nanoscale, 2018, 10, 14464-14471.	5.6	16
76	BaYF₅:Yb³⁺,Tm³⁺ Upconverting Nanoparticles with Improved Population of the Visible and Near-Infrared Emitting States: Implications for Bioimaging. ACS Applied Nano Materials, 2021, 4, 5301-5308.	5.0	16
77	Investigating the reactive oxygen species production of Rose Bengal and Merocyanine 540-loaded radioluminescent nanoparticles. Nanoscale Advances, 2021, 3, 1375-1381.	4.6	14
78	A highly sensitive luminescent lectin sensor based on an Î±-d-mannose substituted Tb3+ antenna complex. Dalton Transactions, 2013, 42, 9453.	3.3	13
79	On a local (de-)trapping model for highly doped Pr³⁺ radioluminescent and persistent luminescent nanoparticles. Nanoscale, 2020, 12, 20759-20766.	5.6	13
80	Wavelength-Selective Nonlinear Imaging and Photo-Induced Cell Damage by Dielectric Harmonic Nanoparticles. ACS Nano, 2020, 14, 4087-4095.	14.6	13
81	Structural Investigation and Anti-Stokes Emission of Scandium Oxide Nanocrystals Activated with Trivalent Erbium. Journal of the Electrochemical Society, 2005, 152, H19.	2.9	12
82	Cellular Uptake, Cytotoxicity and Trafficking of Supported Lipid-Bilayer-Coated Lanthanide Upconverting Nanoparticles in Alveolar Lung Cancer Cells. ACS Applied Bio Materials, 2019, 2, 4527-4536.	4.6	12
83	On the photostability and luminescence of dye-sensitized upconverting nanoparticles using modified IR820 dyes. Nanoscale Advances, 2022, 4, 608-618.	4.6	12
84	Intense NIR emissions at 0.8 Î¼m, 1.47 Î¼m, and 1.53 Î¼m from colloidal LiYbF₄:Ln³⁺ (Ln) Tj ETQq0 0 0 rgBT 17577-17583.	2.8	11
85	Energy Migration Control of Multimodal Emissions in an Er³⁺â€Doped Nanostructure for Information Encryption and Deepâ€Learning Decoding. Angewandte Chemie, 2021, 133, 23983-23989.	2.0	11
86	The Key Role of Intrinsic Lifetime Dynamics from Upconverting Nanosystems in Multiemission Particle Velocimetry. Advanced Materials, 2020, 32, e2002266.	21.0	10
87	Near-IR Triggered Photon Upconversion. Fundamental Theories of Physics, 2015, 47, 273-347.	0.3	9
88	Lifetime of the ³H₄ Electronic State in Tm³⁺-Doped Upconverting Nanoparticles for NIR Nanothermometry. Journal of Physical Chemistry B, 2021, 125, 13132-13136.	2.6	9
89	Electron paramagnetic resonance of Er3+ doped in YVO4: hyperfine parameters. Chemical Physics, 1999, 240, 313-318.	1.9	8
90	Response to â€œCritical Growth Temperature of Aqueous CdTe Quantum Dots is Nonâ€negligible for their Application as Nanothermometersâ€• Small, 2013, 9, 3198-3200.	10.0	8

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91	Reconstructing the Surface Structure of NaREF₄ Upconversion Nanocrystals with a Novel K⁺ Treatment. Chemistry of Materials, 2021, 33, 2548-2556.	6.7	5
92	Imaging: High Relaxivities and Strong Vascular Signal Enhancement for NaGdF4Nanoparticles Designed for Dual MR/Optical Imaging (Adv. Healthcare Mater. 11/2013). Advanced Healthcare Materials, 2013, 2, 1477-1477.	7.6	4
93	Intrinsic Timeâ€Tunable Emissions in Coreâ€“Shell Upconverting Nanoparticle Systems. Angewandte Chemie, 2019, 131, 9844-9853.	2.0	2
94	Lanthanide-Doped Nanoparticles in Biological Imaging and Bioassays. Springer Series on Fluorescence, 2021, , 93-128.	0.8	2
95	Geochemistry of a subarctic salt marsh environment. Marine Geology, 1980, 37, 231-240.	2.1	1
96	Fluorescence line-narrowing spectroscopy of a sodium phosphotantalate glass doped with Eu3+. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2002, 82, 587-596.	0.6	1
97	Synthesis and fundamental studies of a photoresponsive oligonucleotide-upconverting nanoparticle covalent conjugate. Materials Chemistry Frontiers, 2021, 5, 4690-4699.	5.9	1
98	Low-Temperature-Induced Controllable Transversal Shell Growth of NaLnF4 Nanocrystals. Nanomaterials, 2021, 11, 654.	4.1	1
99	Growing Gold Nanostars on SiO2 Nanoparticles: Easily Accessible, NIR Active Coreâ€“Shell Nanostructures from PVP/DMF Reduction. Chemistry, 2022, 4, 647-654.	2.2	1
100	Frontispiece: Intrinsic Timeâ€Tunable Emissions in Coreâ€“Shell Upconverting Nanoparticle Systems. Angewandte Chemie - International Edition, 2019, 58, .	13.8	0
101	Frontispiz: Intrinsic Timeâ€Tunable Emissions in Coreâ€“Shell Upconverting Nanoparticle Systems. Angewandte Chemie, 2019, 131, .	2.0	0
102	Multiemission Particle Velocimetry: The Key Role of Intrinsic Lifetime Dynamics from Upconverting Nanosystems in Multiemission Particle Velocimetry (Adv. Mater. 42/2020). Advanced Materials, 2020, 32, 2070316.	21.0	0