Thomas Pons

List of Publications by Year
in descending order

100 papers	7,921 citations	57719 44 h-index	58549 82 g-index
107 all docs	107 docs citations	107 times ranked	9254 citing authors

#	Article	IF	Citations
1	Energy Transfer with Semiconductor Quantum Dot Bioconjugates: A Versatile Platform for Biosensing, Energy Harvesting, and Other Developing Applications. Chemical Reviews, 2017, 117, 536-711.	23.0	575
2	Cadmium-Free CuInS₂/ZnS Quantum Dots for Sentinel Lymph Node Imaging with Reduced Toxicity. ACS Nano, 2010, 4, 2531-2538.	7.3	491
3	Enhancing the Stability and Biological Functionalities of Quantum Dots via Compact Multifunctional Ligands. Journal of the American Chemical Society, 2007, 129, 13987-13996.	6.6	486
4	On the Quenching of Semiconductor Quantum Dot Photoluminescence by Proximal Gold Nanoparticles. Nano Letters, 2007, 7, 3157-3164.	4.5	480
5	Biosensing with Luminescent Semiconductor Quantum Dots. Sensors, 2006, 6, 925-953.	2.1	381
6	Effects of (Multi)branching of Dipolar Chromophores on Photophysical Properties and Two-Photon Absorption. Journal of Physical Chemistry A, 2005, 109, 3024-3037.	1.1	341
7	Hydrodynamic Dimensions, Electrophoretic Mobility, and Stability of Hydrophilic Quantum Dots. Journal of Physical Chemistry B, 2006, 110, 20308-20316.	1.2	280
8	Solution-Phase Single Quantum Dot Fluorescence Resonance Energy Transfer. Journal of the American Chemical Society, 2006, 128, 15324-15331.	6.6	272
9	Kinetics of Metal-Affinity Driven Self-Assembly between Proteins or Peptides and CdSeâ^'ZnS Quantum Dots. Journal of Physical Chemistry C, 2007, 111, 11528-11538.	1.5	257
10	Self-Assembled Quantum Dotâ^'Peptide Bioconjugates for Selective Intracellular Delivery. Bioconjugate Chemistry, 2006, 17, 920-927.	1.8	246
11	Enhanced Two-Photon Absorption with Novel Octupolar Propeller-Shaped Fluorophores Derived from Triphenylamine. Organic Letters, 2004, 6, 47-50.	2.4	244
12	Small and Stable Sulfobetaine Zwitterionic Quantum Dots for Functional Live-Cell Imaging. Journal of the American Chemical Society, 2010, 132, 4556-4557.	6.6	223
13	A Reactive Peptidic Linker for Self-Assembling Hybrid Quantum Dotâ^'DNA Bioconjugates. Nano Letters, 2007, 7, 1741-1748.	4.5	189
14	Synthesis and Characterization of Near-Infrared Cuâ^'Inâ^'Se/ZnS Core/Shell Quantum Dots for In vivo Imaging. Chemistry of Materials, 2010, 22, 6117-6124.	3.2	167
15	Synthesis, encapsulation, purification and coupling of single quantum dots in phospholipid micelles for their use in cellular and in vivo imaging. Nature Protocols, 2007, 2, 2383-2390.	5.5	155
16	Intracellular Delivery of Quantum Dotâ^'Protein Cargos Mediated by Cell Penetrating Peptides. Bioconjugate Chemistry, 2008, 19, 1785-1795.	1.8	155
17	Design of new quantum dot materials for deep tissue infrared imaging. Advanced Drug Delivery Reviews, 2013, 65, 719-731.	6.6	139
18	Two-Photon Excitation of Quantum-Dot-Based Fluorescence Resonance Energy Transfer and Its Applications. Advanced Materials, 2007, 19, 1921-1926.	11.1	117

#	Article	IF	Citations
19	Interactions between Redox Complexes and Semiconductor Quantum Dots Coupled via a Peptide Bridge. Journal of the American Chemical Society, 2008, 130, 16745-16756.	6.6	115
20	Fluorine-18-Labeled Phospholipid Quantum Dot Micelles for in Vivo Multimodal Imaging from Whole Body to Cellular Scales. Bioconjugate Chemistry, 2008, 19, 1921-1926.	1.8	113
21	Zwitterionic polymer ligands: an ideal surface coating to totally suppress protein-nanoparticle corona formation?. Biomaterials, 2019, 219, 119357.	5.7	110
22	Resonance Energy Transfer Between Luminescent Quantum Dots and Diverse Fluorescent Protein Acceptors. Journal of Physical Chemistry C, 2009, 113, 18552-18561.	1.5	109
23	PEGylated Luminescent Gold Nanoclusters: Synthesis, Characterization, Bioconjugation, and Application to Oneâ€•and Twoâ€Photon Cellular Imaging. Particle and Particle Systems Characterization, 2013, 30, 453-466.	1.2	108
24	Colloidal CdSe/CdS Dot-in-Plate Nanocrystals with 2D-Polarized Emission. ACS Nano, 2012, 6, 6741-6750.	7.3	106
25	Highly Enhanced Affinity of Multidentate versus Bidentate Zwitterionic Ligands for Long-Term Quantum Dot Bioimaging. Langmuir, 2012, 28, 15177-15184.	1.6	105
26	Synthesis and two-photon absorption of highly soluble three-branched fluorenylene-vinylene derivatives. Tetrahedron Letters, 2003, 44, 8121-8125.	0.7	103
27	Strong Modulation of Two-Photon Excited Fluorescence of Quadripolar Dyes by (De)Protonation. Journal of the American Chemical Society, 2004, 126, 16294-16295.	6.6	98
28	Synthesis of Near-Infrared-Emitting, Water-Soluble CdTeSe/CdZnS Core/Shell Quantum Dots. Chemistry of Materials, 2009, 21, 1418-1424.	3.2	83
29	Designer Variable Repeat Length Polypeptides as Scaffolds for Surface Immobilization of Quantum Dots. Journal of Physical Chemistry B, 2006, 110, 10683-10690.	1.2	81
30	Quantum dotsâ€“DNA bioconjugates: synthesis to applications. Interface Focus, 2016, 6, 20160064.	1.5	78
31	Mechanisms of membrane potential sensing with second-harmonic generation microscopy. Journal of Biomedical Optics, 2003, 8, 428.	1.4	71
32	Electro-optic response of second-harmonic generation membrane potential sensors. Optics Letters, 2003, 28, 625.	1.7	62
33	Sulfobetaineâ€“Vinylimidazole Block Copolymers: A Robust Quantum Dot Surface Chemistry Expanding Bioimagingâ€™s Horizons. ACS Nano, 2015, 9, 11479-11489.	7.3	62
34	Spectrally resolved energy transfer using quantum dot donors: Ensemble and single-molecule photoluminescence studies. Physical Review B, 2006, 73, .	1.1	60
35	Raman- and IR-Active Phonons in CdSe/CdS Core/Shell Nanocrystals in the Presence of Interface Alloying and Strain. Journal of Physical Chemistry C, 2013, 117, 18225-18233.	1.5	60
36	Influence of Luminescence Quantum Yield, Surface Coating, and Functionalization of Quantum Dots on the Sensitivity of Time-Resolved FRET Bioassays. ACS Applied Materials & Interfaces, 2013, 5, 2881-2892.	4.0	60

#	Article	IF	Citations
37	Investigating Biological Processes at the Single Molecule Level Using Luminescent Quantum Dots. Annals of Biomedical Engineering, 2009, 37, 1934-1959.	1.3	59
38	Binding and Neutralization of Lipopolysaccharides by Plant Proanthocyanidins. Journal of Natural Products, 2007, 70, 1718-1724.	1.5	58
39	Multimodal Mn-doped Iâ€“IIIâ€“VI quantum dots for near infrared fluorescence and magnetic resonance imaging: from synthesis to in vivo application. Nanoscale, 2014, 6, 9264-9272.	2.8	56
40	In Vivo Imaging of Single Tumor Cells in Fast-Flowing Bloodstream Using Near-Infrared Quantum Dots and Time-Gated Imaging. ACS Nano, 2019, 13, 3125-3131.	7.3	48
41	Doping as a Strategy to Tune Color of 2D Colloidal Nanoplatelets. ACS Applied Materials & Interfaces, 2019, 11, 10128-10134.	4.0	48
42	Visualisation of Sentinel Lymph Node with Indium-Based near Infrared Emitting Quantum Dots in a Murine Metastatic Breast Cancer Model. PLoS ONE, 2012, 7, e44433.	1.1	47
43	Comparing Intracellular Stability and Targeting of Sulfobetaine Quantum Dots with Other Surface Chemistries in Live Cells. Small, 2012, 8, 1029-1037.	5.2	45
44	Reduced Carrier Recombination in PbS - CuInS2 Quantum Dot Solar Cells. Scientific Reports, 2015, 5, 10626.	1.6	44
45	Two-photon absorption and fluorescence in nanoscale multipolar chromophores: effect of dimensionality and charge-symmetry. Journal of Molecular Structure, 2004, 704, 17-24.	1.8	43
46	Fluorescence Imaging and Whole-Body Biodistribution of Near-Infrared-Emitting Quantum Dots after Subcutaneous Injection for Regional Lymph Node Mapping in Mice. Molecular Imaging and Biology, 2010, 12, 394-405.	1.3	43
47	Clickable-Zwitterionic Copolymer Capped-Quantum Dots for in Vivo Fluorescence Tumor Imaging. ACS Applied Materials & Interfaces, 2018, 10, 17107-17116.	4.0	43
48	Fast, Efficient, and Stable Conjugation of Multiple DNA Strands on Colloidal Quantum Dots. Bioconjugate Chemistry, 2015, 26, 1582-1589.	1.8	42
49	On the Characterization of the Surface Chemistry of Quantum Dots. Nano Letters, 2013, 13, 5075-5078.	4.5	37
50	Oriented Bioconjugation of Unmodified Antibodies to Quantum Dots Capped with Copolymeric Ligands as Versatile Cellular Imaging Tools. ACS Applied Materials & Interfaces, 2015, 7, 26904-26913.	4.0	37
51	Enhancing fluorescence in vivo imaging using inorganic nanoprobes. Current Opinion in Biotechnology, 2015, 34, 65-72.	3.3	36
52	Compact tridentate ligands for enhanced aqueous stability of quantum dots and in vivo imaging. Chemical Science, 2013, 4, 411-417.	3.7	32
53	Examining the Polyproline Nanoscopic Ruler in the Context of Quantum Dots. Chemistry of Materials, 2015, 27, 6222-6237.	3.2	30
54	Time-gated cell imaging using long lifetime near-infrared-emitting quantum dots for autofluorescence rejection. Journal of Biomedical Optics, 2014, 19, 051208.	1.4	28

#	Article	IF	Citations
55	Pulsed-laser irradiation of multifunctional gold nanoshells to overcome trastuzumab resistance in HER2-overexpressing breast cancer. Journal of Experimental and Clinical Cancer Research, 2019, 38, 306.	3.5	27
56	Engineering Bicolor Emission in 2D Core/Crown CdSe/CdSe_{1â€“x}Te_x Nanoplatelet Heterostructures Using Band-Offset Tuning. Journal of Physical Chemistry C, 2017, 121, 24816-24823.	1.5	26
57	Compensatory ion transport buffers daily protein rhythms to regulate osmotic balance and cellular physiology. Nature Communications, 2021, 12, 6035.	5.8	26
58	Photoinduced Flip-Flop of Amphiphilic Molecules in Lipid Bilayer Membranes. Physical Review Letters, 2002, 89, 288104.	2.9	23
59	Quantum dot-loaded PEGylated poly(alkyl cyanoacrylate) nanoparticles for in vitro and in vivo imaging. Soft Matter, 2011, 7, 6187.	1.2	23
60	Surface Modification of CdE (E: S, Se, and Te) Nanoplatelets to Reach Thicker Nanoplatelets and Homostructures with Confinement-Induced Intraparticle Type I Energy Level Alignment. Journal of the American Chemical Society, 2021, 143, 1863-1872.	6.6	23
61	Microcavity-Enhanced Fluorescence Energy Transfer from Quantum Dot Excited Whispering Gallery Modes to Acceptor Dye Nanoparticles. ACS Nano, 2021, 15, 1445-1453.	7.3	19
62	Singleâ€Molecule Colocalization Studies Shed Light on the Idea of Fully Emitting versus Dark Single Quantum Dots. Small, 2011, 7, 2101-2108.	5.2	18
63	Adaptive optics for fluorescence wide-field microscopy using spectrally independent guide star and markers. Journal of Biomedical Optics, 2011, 16, 076019.	1.4	18
64	Fluorescent Nanoparticles for the Guided Surgery of Ovarian Peritoneal Carcinomatosis. Nanomaterials, 2018, 8, 572.	1.9	17
65	The targeting ability of fluorescent quantum dots to the folate receptor rich tumors. Photodiagnosis and Photodynamic Therapy, 2019, 26, 150-156.	1.3	15
66	Near-infrared emitting AgInTe2 and Zn-Ag-In-Te colloidal nanocrystals. Nanoscale Research Letters, 2015, 10, 951.	3.1	14
67	NIR Imaging of the Integrin-Rich Head and Neck Squamous Cell Carcinoma Using Ternary Copper Indium Selenide/Zinc Sulfide-Based Quantum Dots. Cancers, 2020, 12, 3727.	1.7	14
68	Zwitterionic Silane Copolymer for Ultra-Stable and Bright Biomolecular Probes Based on Fluorescent Quantum Dot Nanoclusters. ACS Applied Materials & Interfaces, 2017, 9, 18161-18169.	4.0	12
69	Autoconfocal microscopy with nonlinear transmitted light detection. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1486.	0.9	11
70	Membrane potential detection with second-harmonic generation and two-photon excited fluorescence: A theoretical comparison. Optics Communications, 2006, 258, 203-209.	1.0	10
71	TWO-PHOTON ABSORPTION AND FLUORESCENCE WITH QUADRUPOLAR AND BRANCHED CHROMOPHORESâ€”EFFECT OF STRUCTURE AND BRANCHING. Journal of Nonlinear Optical Physics and Materials, 2004, 13, 451-460.	1.1	8
72	A novel type of quantum dotâ€“transferrin conjugate using DNA hybridization mimics intracellular recycling of endogenous transferrin. Nanoscale, 2017, 9, 15453-15460.	2.8	7

#	Article	IF	Citations
73	Real-Space Investigation of Energy Transfer through Electron Tomography. Journal of Physical Chemistry C, 2017, 121, 28395-28402.	1.5	7
74	Fluorescence properties of self assembled colloidal supraparticles from CdSe/CdS/ZnS nanocrystals. New Journal of Physics, 2020, 22, 113026.	1.2	6
75	NanoPaint: A Tool for Rapid and Dynamic Imaging of Membrane Structural Plasticity at the Nanoscale. Small, 2019, 15, e1902796.	5.2	4
76	Designing the Surface Chemistry of Inorganic Nanocrystals for Cancer Imaging and Therapy. Cancers, 2022, 14, 2456.	1.7	4
77	pH-Sensitive Visible or Shortwave Infrared Quantum Dot Nanoprobes Using Conformation-Switchable Copolymeric Ligands. ACS Applied Materials & Interfaces, 2019, 11, 25008-25016.	4.0	3
78	Imaging of Red-Shifted Light From Bioluminescent Tumors Using Fluorescence by Unbound Excitation From Luminescence. Frontiers in Bioengineering and Biotechnology, 2019, 7, 73.	2.0	3
79	Delivery of quantum dot bioconjugates to the cellular cytosol: release from the endolysosomal system. , 2010, , .		2
80	Molecular engineering of nanoscale quadrupolar chromophores for two-photon absorption. , 2003, 4797, 284.		1
81	Hydrodynamic sizes of functional hydrophilic QDs. , 2006, 6096, 281.		1
82	Luminescent Semiconductor Quantum Dots in Biology. , 0, , 141-157.		1
83	Microscopy with femtosecond lasers. European Physical Journal Special Topics, 2002, 12, 53-57.	0.2	1
84	Photo-induced flip-flop of membrane markers monitored by SHG microscopy. , 2003, , .		0
85	Photo-induced flip-flop of amphiphilic membrane markers. , 2003, , .		0
86	Synthesis and Two-Photon Absorption of Highly Soluble Three-Branched Fluorenylene-vinylene Derivatives.. ChemInform, 2004, 35, no.	0.1	0
87	Nanoscale multipolar chromophores for optical limiting in the visible-NIR range based on multiphoton absorption. , 2004, , .		0
88	Probing the effects of spectral overlap on quantum-dot-based FRET: Ensemble and single molecule studies. , 2006, 6096, 91.		0
89	Quantum dot-DNA bioconjugates for fluorescence-resonance-energy-transfer-based biosensing. , 2007, 6448, 63.		0
90	Single quantum dot fluorescence resonant energy transfer: probing the heterogeneity in macroscopic samples. , 2007, , .		0

#	Article	IF	Citations
91	Selective cellular delivery of self-assembled quantum dot-peptide bioconjugates. , 2007, , .		0
92	Specific cellular delivery and intracellular fate of quantum dot- peptide and quantum dot-polymer nanoassemblies. , 2008, , .		0
93	Assembly and intracellular delivery of quantum dot-fluorescent protein bioconjugates. Proceedings of SPIE, 2008, , .	0.8	0
94	Self-assembled quantum dot-bioconjugates: characterization and use for sensing proteolytic activity. Proceedings of SPIE, 2008, , .	0.8	0
95	Using metal complex-labeled peptides for charge transfer-based biosensing with semiconductor quantum dots. Proceedings of SPIE, 2009, , .	0.8	0
96	Intracellular delivery of and sensing with quantum dot bioconjugates. Proceedings of SPIE, 2009, , .	0.8	0
97	Le projet DOT-IMAGER. Irbm, 2010, 31, 70-72.	3.7	0
98	Time-gated imaging of near-infrared quantum dots forin vivocell tracking. , 2014, , .		0
99	Multidentate polymeric ligands for long-term bioimaging using highly stable and functionalized quantum dots. Proceedings of SPIE, 2014, , .	0.8	0
100	Long lifetime near-infrared-emitting quantum dots for time-gated in vivo imaging of rare circulating cells (Conference Presentation). , 2017, , .		0