James B Delehanty

List of Publications by Year
in descending order

96 papers	6,919 citations	71102 41 h-index	58581 82 g-index
99 all docs	99 docs citations	99 times ranked	8840 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.	47.7	575
2	Enhancing the Stability and Biological Functionalities of Quantum Dots via Compact Multifunctional Ligands. Journal of the American Chemical Society, 2007, 129, 13987-13996.	13.7	486
3	Quantum-dot/dopamine bioconjugates function as redox coupled assemblies for in vitro and intracellular pH sensing. Nature Materials, 2010, 9, 676-684.	27.5	433
4	Cellular Uptake and Fate of PEGylated Gold Nanoparticles Is Dependent on Both Cell-Penetration Peptides and Particle Size. ACS Nano, 2011, 5, 6434-6448.	14.6	381
5	Semiconductor Quantum Dots in Bioanalysis: Crossing the Valley of Death. Analytical Chemistry, 2011, 83, 8826-8837.	6.5	318
6	Delivering quantum dots into cells: strategies, progress and remaining issues. Analytical and Bioanalytical Chemistry, 2009, 393, 1091-1105.	3.7	312
7	Multifunctional Compact Zwitterionic Ligands for Preparing Robust Biocompatible Semiconductor Quantum Dots and Gold Nanoparticles. Journal of the American Chemical Society, 2011, 133, 9480-9496.	13.7	276
8	Self-Assembled Quantum Dotâˆ'Peptide Bioconjugates for Selective Intracellular Delivery. Bioconjugate Chemistry, 2006, 17, 920-927.	3.6	246
9	Modular poly(ethylene glycol) ligands for biocompatible semiconductor and gold nanocrystals with extended pH and ionic stability. Journal of Materials Chemistry, 2008, 18, 4949.	6.7	205
10	Multidentate Poly(ethylene glycol) Ligands Provide Colloidal Stability to Semiconductor and Metallic Nanocrystals in Extreme Conditions. Journal of the American Chemical Society, 2010, 132, 9804-9813.	13.7	187
11	Intracellular Delivery of Quantum Dotâˆ'Protein Cargos Mediated by Cell Penetrating Peptides. Bioconjugate Chemistry, 2008, 19, 1785-1795.	3.6	155
12	In vitro interaction of colloidal nanoparticles with mammalian cells: What have we learned thus far?. Beilstein Journal of Nanotechnology, 2014, 5, 1477-1490.	2.8	130
13	Delivering quantum dot-peptide bioconjugates to the cellular cytosol: escaping from the endolysosomal system. Integrative Biology (United Kingdom), 2010, 2, 265.	1.3	124
14	Selecting Improved Peptidyl Motifs for Cytosolic Delivery of Disparate Protein and Nanoparticle Materials. ACS Nano, 2013, 7, 3778-3796.	14.6	124
15	Recent Progress in Bioconjugation Strategies for Liposome-Mediated Drug Delivery. Molecules, 2020, 25, 5672.	3.8	124
16	Peptides for Specifically Targeting Nanoparticles to Cellular Organelles: <i>Quo Vadis</i>?. Accounts of Chemical Research, 2015, 48, 1380-1390.	15.6	118
17	Spatiotemporal Multicolor Labeling of Individual Cells Using Peptide-Functionalized Quantum Dots and Mixed Delivery Techniques. Journal of the American Chemical Society, 2011, 133, 10482-10489.	13.7	115
18	Cytotoxicity of Quantum Dots Used for <i>In Vitro</i> Cellular Labeling: Role of QD Surface Ligand, Delivery Modality, Cell Type, and Direct Comparison to Organic Fluorophores. Bioconjugate Chemistry, 2013, 24, 1570-1583.	3.6	113

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19	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.	2.3	108
20	Evaluating the potential of using quantum dots for monitoring electrical signals in neurons. Nature Nanotechnology, 2018, 13, 278-288.	31.5	96
21	Quantum dots: a powerful tool for understanding the intricacies of nanoparticle-mediated drug delivery. Expert Opinion on Drug Delivery, 2009, 6, 1091-1112.	5.0	94
22	A New Family of Pyridine-Appended Multidentate Polymers As Hydrophilic Surface Ligands for Preparing Stable Biocompatible Quantum Dots. Chemistry of Materials, 2014, 26, 5327-5344.	6.7	94
23	Intracellular Bioconjugation of Targeted Proteins with Semiconductor Quantum Dots. Journal of the American Chemical Society, 2010, 132, 5975-5977.	13.7	92
24	Combining Chemoselective Ligation with Polyhistidine-Driven Self-Assembly for the Modular Display of Biomolecules on Quantum Dots. ACS Nano, 2010, 4, 267-278.	14.6	91
25	Peptides for specific intracellular delivery and targeting of nanoparticles: implications for developing nanoparticle-mediated drug delivery. Therapeutic Delivery, 2010, 1, 411-433.	2.2	87
26	Electric Field Modulation of Semiconductor Quantum Dot Photoluminescence: Insights Into the Design of Robust Voltage-Sensitive Cellular Imaging Probes. Nano Letters, 2015, 15, 6848-6854.	9.1	85
27	Reactive Semiconductor Nanocrystals for Chemoselective Biolabeling and Multiplexed Analysis. ACS Nano, 2011, 5, 5579-5593.	14.6	80
28	Intracellular FRET-based probes: a review. Methods and Applications in Fluorescence, 2015, 3, 042006.	2.3	80
29	Purple-, Blue-, and Green-Emitting Multishell Alloyed Quantum Dots: Synthesis, Characterization, and Application for Ratiometric Extracellular pH Sensing. Chemistry of Materials, 2017, 29, 7330-7344.	6.7	74
30	Active Cellular and Subcellular Targeting of Nanoparticles for Drug Delivery. Pharmaceutics, 2019, 11, 543.	4.5	72
31	Active cellular sensing with quantum dots: Transitioning from research tool to reality; a review. Analytica Chimica Acta, 2012, 750, 63-81.	5.4	71
32	Quantum dotâ€“based multiphoton fluorescent pipettes for targeted neuronal electrophysiology. Nature Methods, 2014, 11, 1237-1241.	19.0	70
33	Quantum Dotâ€“Peptideâ€“Fullerene Bioconjugates for Visualization of <i>in Vitro</i> and <i>in Vivo</i> Cellular Membrane Potential. ACS Nano, 2017, 11, 5598-5613.	14.6	68
34	Delivery and Tracking of Quantum Dot Peptide Bioconjugates in an Intact Developing Avian Brain. ACS Chemical Neuroscience, 2015, 6, 494-504.	3.5	67
35	Nanomaterial-based sensors for the detection of biological threat agents. Materials Today, 2016, 19, 464-477.	14.2	67
36	Nanoparticle Targeting to Neurons in a Rat Hippocampal Slice Culture Model. ASN Neuro, 2012, 4, AN20120042.	2.7	61

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37	Binding and Neutralization of Lipopolysaccharides by Plant Proanthocyanidins. Journal of Natural Products, 2007, 70, 1718-1724.	3.0	58
38	Multifunctional Liquid Crystal Nanoparticles for Intracellular Fluorescent Imaging and Drug Delivery. ACS Nano, 2014, 8, 6986-6997.	14.6	57
39	Multifunctional nanoparticle composites: progress in the use of soft and hard nanoparticles for drug delivery and imaging. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2017, 9, e1466.	6.1	57
40	Transfected Cell Microarrays for the Expression of Membrane-Displayed Single-Chain Antibodies. Analytical Chemistry, 2004, 76, 7323-7328.	6.5	45
41	Optimizing Protein Coordination to Quantum Dots with Designer Peptidyl Linkers. Bioconjugate Chemistry, 2013, 24, 269-281.	3.6	45
42	Intracellularly Actuated Quantum Dotâ€"Peptideâ€"Doxorubicin Nanobioconjugates for Controlled Drug Delivery via the Endocytic Pathway. Bioconjugate Chemistry, 2018, 29, 136-148.	3.6	44
43	Modification of Poly(ethylene glycol)-Capped Quantum Dots with Nickel Nitrilotriacetic Acid and Self-Assembly with Histidine-Tagged Proteins. Journal of Physical Chemistry C, 2010, 114, 13526-13531.	3.1	43
44	Emerging Physicochemical Phenomena along with New Opportunities at the Biomolecularâ€"Nanoparticle Interface. Journal of Physical Chemistry Letters, 2016, 7, 2139-2150.	4.6	41
45	The Role of Negative Charge in the Delivery of Quantum Dots to Neurons. ASN Neuro, 2015, 7, 175909141559238.	2.7	39
46	Site-specific cellular delivery of quantum dots with chemoselectively-assembled modular peptides. Chemical Communications, 2013, 49, 7878.	4.1	37
47	Continuing progress toward controlled intracellular delivery of semiconductor quantum dots. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2015, 7, 131-151.	6.1	36
48	Nanoparticle-Mediated Visualization and Control of Cellular Membrane Potential: Strategies, Progress, and Remaining Issues. ACS Nano, 2020, 14, 2659-2677.	14.6	35
49	Cholesterol Functionalization of Gold Nanoparticles Enhances Photoactivation of Neural Activity. ACS Chemical Neuroscience, 2019, 10, 1478-1487.	3.5	33
50	Examining the Polyproline Nanoscopic Ruler in the Context of Quantum Dots. Chemistry of Materials, 2015, 27, 6222-6237.	6.7	30
51	Immobilized Proanthocyanidins for the Capture of Bacterial Lipopolysaccharides. Analytical Chemistry, 2008, 80, 2113-2117.	6.5	28
52	Nanoparticle cellular uptake by dendritic wedge peptides: achieving single peptide facilitated delivery. Nanoscale, 2017, 9, 10447-10464.	5.6	28
53	Evaluation of diverse peptidyl motifs for cellular delivery of semiconductor quantum dots. Analytical and Bioanalytical Chemistry, 2013, 405, 6145-6154.	3.7	26
54	Quantum Dots and Fluorescent Protein FRET-Based Biosensors. Advances in Experimental Medicine and Biology, 2012, 733, 63-74.	1.6	25

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55	A Quantum Dot-Protein Bioconjugate That Provides for Extracellular Control of Intracellular Drug Release. Bioconjugate Chemistry, 2018, 29, 2455-2467.	3.6	23
56	Nanoparticleâ€"Peptideâ€"Drug Bioconjugates for Unassisted Defeat of Multidrug Resistance in a Model Cancer Cell Line. Bioconjugate Chemistry, 2019, 30, 525-530.	3.6	23
57	RNA hydrolysis and inhibition of translation by a Co(III)-cyclen complex. Rna, 2005, 11, 831-836.	3.5	21
58	Controlling the actuation of therapeutic nanomaterials: enabling nanoparticle-mediated drug delivery. Therapeutic Delivery, 2013, 4, 1411-1429.	2.2	19
59	Quantum dotâ€mediated delivery of siRNA to inhibit sphingomyelinase activities in brainâ€derived cells. Journal of Neurochemistry, 2016, 139, 872-885.	3.9	19
60	Printing Functional Protein Microarrays Using Piezoelectric Capillaries. , 2004, 264, 135-144.		18
61	Sensing Nitric Oxide in Cells: Historical Technologies and Future Outlook. ACS Sensors, 2021, 6, 1695-1703.	7.8	18
62	Optimizing Nanoplasmonic Biosensor Sensitivity with Orientated Single Domain Antibodies. Plasmonics, 2015, 10, 1649-1655.	3.4	15
63	Controlled actuation of therapeutic nanoparticles: an update on recent progress. Therapeutic Delivery, 2016, 7, 335-352.	2.2	15
64	Lipid Raft-Mediated Membrane Tethering and Delivery of Hydrophobic Cargos from Liquid Crystal-Based Nanocarriers. Bioconjugate Chemistry, 2016, 27, 982-993.	3.6	14
65	Cellular delivery of doxorubicin mediated by disulfide reduction of a peptide-dendrimer bioconjugate. International Journal of Pharmaceutics, 2018, 545, 64-73.	5.2	14
66	Hybrid Liquid Crystal Nanocarriers for Enhanced Zinc Phthalocyanine-Mediated Photodynamic Therapy. Bioconjugate Chemistry, 2018, 29, 2701-2714.	3.6	14
67	Determining the Cytosolic Stability of Small DNA Nanostructures <i>In Cellula</i>. Nano Letters, 2022, 22, 5037-5045.	9.1	14
68	Modulation of Intracellular Quantum Dot to Fluorescent Protein FÃ¶rster Resonance Energy Transfer via Customized Ligands and Spatial Control of Donorâ€"Acceptor Assembly. Sensors, 2015, 15, 30457-30468.	3.8	12
69	Utility of PEGylated dithiolane ligands for direct synthesis of water-soluble Au, Ag, Pt, Pd, Cu and AuPt nanoparticles. Chemical Communications, 2018, 54, 1956-1959.	4.1	12
70	Peptide-Functionalized Quantum Dot Biosensors. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 115-126.	2.9	11
71	The role of nanoparticles in the improvement of systemic anticancer drug delivery. Therapeutic Delivery, 2018, 9, 527-545.	2.2	8
72	Gold-Nanoparticle-Mediated Depolarization of Membrane Potential Is Dependent on Concentration and Tethering Distance from the Plasma Membrane. Bioconjugate Chemistry, 2020, 31, 567-576.	3.6	8

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73	Controlled actuation of therapeutic nanoparticles: moving beyond passive delivery modalities. Therapeutic Delivery, 2013, 4, 127-129.	2.2	7
74	Display of Potassium Channelâ€"Blocking Tertiapinâ€Q Peptides on Gold Nanoparticles Enhances Depolarization of Cellular Membrane Potential. Particle and Particle Systems Characterization, 2019, 36, 1800493.	2.3	6
75	Synthesis of a Reactive Oxygen Species-Responsive Doxorubicin Derivative. Molecules, 2018, 23, 1809.	3.8	5
76	Anionic Conjugated Polyelectrolytes for FRETâ€based Imaging of Cellular Membrane Potential. Photochemistry and Photobiology, 2020, 96, 834-844.	2.5	5
77	Semiconductor Quantum Dots for Visualization and Sensing in Neuronal Cell Systems. Neuromethods, 2020, , 1-18.	0.3	5
78	Elaborate Nanoparticleâ€Based Traps for Catching Cytosolic Players in the Act. ChemBioChem, 2012, 13, 30-33.	2.6	4
79	Liquid Crystal Nanoparticle Conjugates for Scavenging Reactive Oxygen Species in Live Cells. Pharmaceuticals, 2022, 15, 604.	3.8	4
80	A Label-free Technique for the Spatio-temporal Imaging of Single Cell Secretions. Journal of Visualized Experiments, 2015, , .	0.3	3
81	Targeting therapeutics to the plasma membrane: opportunities for nanoparticle-mediated delivery abound. Therapeutic Delivery, 2017, 8, 235-237.	2.2	3
82	Targeted Plasma Membrane Delivery of a Hydrophobic Cargo Encapsulated in a Liquid Crystal Nanoparticle Carrier. Journal of Visualized Experiments, 2017, , .	0.3	2
83	Recent development of dihydrolipoic acid appended ligands for robust and biocompatible quantum dots. Proceedings of SPIE, 2013, , .	0.8	1
84	Membrane-targeting peptides for nanoparticle-facilitated cellular imaging and analysis. Proceedings of SPIE, 2015, , .	0.8	1
85	The influence of cell penetrating peptide branching on cellular uptake of QDs. , 2016, , .		1
86	Semiconductor quantum dots as FÃ¶rster resonance energy transfer donors for intracellularly-based biosensors. , 2017, , .		1
87	Cover Image, Volume 9, Issue 6. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2017, 9, e1501.	6.1	1
88	Hydrodynamic Focusing-Enabled Blood Vessel Fabrication for in Vitro Modeling of Neural Surrogates. Journal of Medical and Biological Engineering, 2021, 41, 456-469.	1.8	1
89	Quantum dot-enabled membrane-tethering and enhanced photoactivation of chlorin-e6. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	1
90	New Biological Activities of Plant Proanthocyanidins. ACS Symposium Series, 2008, , 101-114.	0.5	0

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91	Fluorescent nanocolloids for differential labeling of the endocytic pathway and drug delivery applications. Proceedings of SPIE, 2013, , .	0.8	0
92	Controlling the intracellular fate of nano-bioconjugates: pathways for realizing nanoparticle-mediated theranostics. Proceedings of SPIE, 2014, , .	0.8	0
93	Cellular Applications of Semiconductor Quantum Dots at the U.S. Naval Research Laboratory: 2006â€"2016. Reviews in Fluorescence, 2017, , 203-242.	0.5	0
94	Mechanisms of Actively Triggered Drug Delivery from Hard Nanoparticle Carriers. ACS Symposium Series, 2019, , 157-185.	0.5	0
95	In Situ Selfâ€Assembly of Quantum Dots at the Plasma Membrane Mediates Energy Transferâ€Based Activation of Channelrhodopsin. Particle and Particle Systems Characterization, 2021, 38, 2100053.	2.3	0
96	Nanoparticle bioconjugate for controlled cellular delivery of doxorubicin. , 2018, , .		0