Timothy V Duncan

List of Publications by Year
in descending order

41 papers	3,441 citations	257357 24 h-index	276775 41 g-index
41 all docs	41 docs citations	41 times ranked	5103 citing authors

#	Article	IF	Citations
1	Applications of nanotechnology in food packaging and food safety: Barrier materials, antimicrobials and sensors. Journal of Colloid and Interface Science, 2011, 363, 1-24.	5.0	1,588
2	Exceptional Near-Infrared Fluorescence Quantum Yields and Excited-State Absorptivity of Highly Conjugated Porphyrin Arrays. Journal of the American Chemical Society, 2006, 128, 9000-9001.	6.6	165
3	Release of Engineered Nanomaterials from Polymer Nanocomposites: Diffusion, Dissolution, and Desorption. ACS Applied Materials & Interfaces, 2015, 7, 2-19.	4.0	117
4	Potentiometric, Electronic Structural, and Ground- and Excited-State Optical Properties of Conjugated Bis[(Porphinato)zinc(II)] Compounds Featuring Proquinoidal Spacer Units. Journal of the American Chemical Society, 2005, 127, 5186-5195.	6.6	114
5	Nanoscale sensors for assuring the safety of food products. Current Opinion in Biotechnology, 2017, 44, 74-86.	3.3	97
6	Release of Engineered Nanomaterials from Polymer Nanocomposites: the Effect of Matrix Degradation. ACS Applied Materials & Interfaces, 2015, 7, 20-39.	4.0	86
7	Engineered Nanoscale Food Ingredients: Evaluation of Current Knowledge on Material Characteristics Relevant to Uptake from the Gastrointestinal Tract. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 730-744.	5.9	85
8	The communication challenges presented by nanofoods. Nature Nanotechnology, 2011, 6, 683-688.	15.6	84
9	Measurement Methods to Detect, Characterize, and Quantify Engineered Nanomaterials in Foods. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 693-704.	5.9	82
10	Challenges and potential solutions for nanosensors intended for use with foods. Nature Nanotechnology, 2021, 16, 251-265.	15.6	79
11	Interfacial Assembly of Nanoparticles in Discrete Blockâ€Copolymer Aggregates. Angewandte Chemie - International Edition, 2007, 46, 9235-9238.	7.2	77
12	The HCO[sub 2] potential energy surface: Stationary point energetics and the HOCO heat of formation. Journal of Chemical Physics, 2000, 113, 5138.	1.2	71
13	Measurement Methods to Evaluate Engineered Nanomaterial Release from Food Contact Materials. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 679-692.	5.9	70
14	Highly Conjugated (Polypyridyl)metalâ^'(Porphinato)zinc(II) Compounds:Â Long-Lived, High Oscillator Strength, Excited-State Absorbers Having Exceptional Spectral Coverage of the Near-Infrared. Journal of the American Chemical Society, 2004, 126, 9474-9475.	6.6	69
15	Molecular Symmetry and Solutionâ€Phase Structure Interrogated by Hyperâ€Rayleigh Depolarization Measurements: Elaborating Highly Hyperpolarizable <i>D</i>₂â€Symmetric Chromophores. Angewandte Chemie - International Edition, 2008, 47, 2978-2981.	7.2	59
16	Molecular Engineering of Intensely Near-Infrared Absorbing Excited States in Highly Conjugated Oligo(porphinato)zincâ^'(Polypyridyl)metal(II) Supermolecules. Journal of the American Chemical Society, 2007, 129, 9691-9703.	6.6	57
17	Large Hyperpolarizabilities at Telecommunication-Relevant Wavelengths in Donorâ€"Acceptorâ€"Donor Nonlinear Optical Chromophores. ACS Central Science, 2016, 2, 954-966.	5.3	48
18	Impact of Electronic Asymmetry on Photoexcited Triplet-State Spin Distributions in Conjugated Porphyrin Oligomers Probed via EPR Spectroscopy. Journal of Physical Chemistry B, 2004, 108, 11893-11903.	1.2	47

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19	Ultrafast Excited-State Dynamics of Nanoscale Near-Infrared Emissive Polymersomes. Journal of the American Chemical Society, 2008, 130, 9773-9784.	6.6	45
20	Excitation of Highly Conjugated (Porphinato)palladium(II) and (Porphinato)platinum(II) Oligomers Produces Long-Lived, Triplet States at Unit Quantum Yield That Absorb Strongly over Broad Spectral Domains of the NIR. Journal of Physical Chemistry B, 2010, 114, 14696-14702.	1.2	44
21	Ethyne-Bridged (Porphinato)Zinc(II)â^'(Porphinato)Iron(III) Complexes:Â Phenomenological Dependence of Excited-State Dynamics upon (Porphinato)Iron Electronic Structure. Journal of the American Chemical Society, 2006, 128, 10423-10435.	6.6	39
22	Improving the Quantum Yields of Semiconductor Quantum Dots through Photoenhancement Assisted by Reducing Agents. Journal of Physical Chemistry C, 2009, 113, 7561-7566.	1.5	33
23	Environmental release of coreâ€"shell semiconductor nanocrystals from free-standing polymer nanocomposite films. Environmental Science: Nano, 2016, 3, 657-669.	2.2	29
24	Temperature-Dependent Mechanistic Transition for Photoinduced Electron Transfer Modulated by Excited-State Vibrational Relaxation Dynamicsâ€. Journal of Physical Chemistry B, 2007, 111, 6829-6838.	1.2	26
25	Food and Beverage Ingredients Induce the Formation of Silver Nanoparticles in Products Stored within Nanotechnology-Enabled Packaging. ACS Applied Materials & Interfaces, 2021, 13, 1398-1412.	4.0	25
26	Measurement Methods for the Oral Uptake of Engineered Nanomaterials from Human Dietary Sources: Summary and Outlook. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 669-678.	5.9	24
27	Methods to Evaluate Uptake of Engineered Nanomaterials by the Alimentary Tract. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 705-729.	5.9	24
28	Detection and Quantification of Biologically Active Botulinum Neurotoxin Serotypes A and B Using a FÃ¶rster Resonance Energy Transfer-Based Quantum Dot Nanobiosensor. ACS Applied Materials & Interfaces, 2017, 9, 31446-31457.	4.0	22
29	Assessment of Mass Transfer from Poly(ethylene) Nanocomposites Containing Noble-Metal Nanoparticles: A Systematic Study of Embedded Particle Stability. ACS Applied Nano Materials, 2018, 1, 5188-5196.	2.4	17
30	A New Family of Color-Tunable Light-Emitting Polymers with High Quantum Yields via the Controlled Oxidation of MEHâ^'PPV. Journal of Physical Chemistry B, 2009, 113, 13216-13221.	1.2	16
31	Near IR nonlinear absorption of an organic supermolecule [Invited]. Optical Materials Express, 2011, 1, 1383.	1.6	16
32	Leveraging Extraction Testing to Predict Patient Exposure to Polymeric Medical Device Leachables Using Physics-based Models. Toxicological Sciences, 2020, 178, 201-211.	1.4	14
33	Bifunctional Nanostructures Composed of Fluorescent Core and Metal Shell Subdomains with Controllable Geometry. Journal of Physical Chemistry C, 2008, 112, 11205-11210.	1.5	13
34	A Quantum Dot Nanobiosensor for Rapid Detection of Botulinum Neurotoxin Serotype E. ACS Sensors, 2020, 5, 2118-2127.	4.0	12
35	Improving risk assessment of color additives in medical device polymers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 310-319.	1.6	10
36	Influence of Different Acids on the Transport of CdSe Quantum Dots from Polymer Nanocomposites to Food Simulants. Environmental Science & Technology, 2018, 52, 9468-9477.	4.6	10

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37	Conservative Exposure Predictions for Rapid Risk Assessment of Phase-Separated Additives in Medical Device Polymers. Annals of Biomedical Engineering, 2018, 46, 14-24.	1.3	9
38	High Throughput Quantification of Quaternary Ammonium Cations in Food Simulants by Flow-Injection Mass Spectrometry. Journal of AOAC INTERNATIONAL, 2018, 101, 1873-1880.	0.7	7
39	Migration of Quaternary Ammonium Cations from Exfoliated Clay/Low-Density Polyethylene Nanocomposites into Food Simulants. ACS Omega, 2019, 4, 13349-13359.	1.6	6
40	Nanoparticles in Polymer Nanocomposite Food Contact Materials: Uses, Potential Release, and Emerging Toxicological Concerns. Molecular and Integrative Toxicology, 2014, , 95-123.	0.5	3
41	CHAPTER 8. Nanomaterials in Food Products: A New Analytical Challenge. RSC Nanoscience and Nanotechnology, 2017, , 143-177.	0.2	2