Jacob W Petrich

List of Publications by Year
in descending order

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Version: 2024-02-01

77 papers	2,153 citations	218677 26 h-index	233421 45 g-index
78 all docs	78 docs citations	78 times ranked	3283 citing authors

#	Article	IF	Citations
1	Shape Evolution and Single Particle Luminescence of Organometal Halide Perovskite Nanocrystals. ACS Nano, 2015, 9, 2948-2959.	14.6	252
2	Research at the Interface between Chemistry and Virology:Â Development of a Molecular Flashlight. Chemical Reviews, 1996, 96, 523-536.	47.7	148
3	Solution-Processed BiI₃ Thin Films for Photovoltaic Applications: Improved Carrier Collection via Solvent Annealing. Chemistry of Materials, 2016, 28, 6567-6574.	6.7	132
4	Enzyme-Catalyzed Hydrolysis of Cellulose in Ionic Liquids: A Green Approach Toward the Production of Biofuels. Journal of Physical Chemistry B, 2010, 114, 8221-8227.	2.6	127
5	Internal motion and electron transfer in proteins: a picosecond fluorescence study of three homologous azurins. Biochemistry, 1987, 26, 2711-2722.	2.5	111
6	Enhanced charge separation in organic photovoltaic films doped with ferroelectric dipoles. Energy and Environmental Science, 2012, 5, 7042.	30.8	106
7	Photophysics of Hypericin and Hypocrellin A in Complex with Subcellular Components: Interactions with Human Serum Albumin. Photochemistry and Photobiology, 1999, 69, 633-645.	2.5	98
8	Enhanced stability and activity of cellulase in an ionic liquid and the effect of pretreatment on cellulose hydrolysis. Biotechnology and Bioengineering, 2012, 109, 434-443.	3.3	65
9	Dynamic Solvation in Imidazolium-Based Ionic Liquids on Short Time Scales. Journal of Physical Chemistry A, 2006, 110, 9549-9554.	2.5	60
10	Solvation Dynamics of the Fluorescent Probe PRODAN in Heterogeneous Environments: Contributions from the Locally Excited and Charge-Transferred States. Journal of Physical Chemistry B, 2009, 113, 11999-12004.	2.6	59
11	Hypocrellin A Photosensitization Involves an Intracellular pH Decrease in 3T3 Cells. Photochemistry and Photobiology, 1998, 68, 44-50.	2.5	55
12	Dynamic Solvation in Phosphonium Ionic Liquids:â€‰ Comparison of Bulk and Micellar Systems and Considerations for the Construction of the Solvation Correlation Function, <i>C</i>(<i>t</i>). Journal of Physical Chemistry B, 2008, 112, 3390-3396.	2.6	48
13	Fluorescence of Dietary Porphyrins as a Basis for Real-Time Detection of Fecal Contamination on Meat. Journal of Agricultural and Food Chemistry, 2003, 51, 3502-3507.	5.2	47
14	The Role of Oxygen in the Antiviral Activity of Hypericin and Hypocrellin. Photochemistry and Photobiology, 1998, 68, 593-597.	2.5	45
15	Plant hemoglobins may be maintained in functional form by reduced flavins in the nuclei, and confer differential tolerance to nitroâ€oxidative stress. Plant Journal, 2013, 76, 875-887.	5.7	44
16	Unveiling the Photoâ€•and Thermalâ€Stability of Cesium Lead Halide Perovskite Nanocrystals. ChemPhysChem, 2019, 20, 2647-2656.	2.1	44
17	Supercontinuum Stimulated Emission Depletion Fluorescence Lifetime Imaging. Journal of Physical Chemistry B, 2012, 116, 7821-7826.	2.6	39
18	Structure and Dynamics of the 1-Hydroxyethyl-4-amino-1,2,4-triazolium Nitrate High-Energy Ionic Liquid System. Journal of Physical Chemistry B, 2012, 116, 503-512.	2.6	38

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19	Maristentorin, a Novel Pigment from the Positively Phototactic Marine CiliateMaristentordinoferus, Is Structurally Related to Hypericin and Stentorin. Journal of Physical Chemistry B, 2006, 110, 6359-6364.	2.6	34
20	Photophysics and Multifunctionality of Hypericin-Like Pigments in Heterotrich Ciliates: A Phylogenetic Perspective. Photochemistry and Photobiology, 2007, 83, 1074-1094.	2.5	34
21	Considerations for the Construction of the Solvation Correlation Function and Implications for the Interpretation of Dielectric Relaxation in Proteins. Journal of Physical Chemistry B, 2009, 113, 11061-11068.	2.6	33
22	Subdiffraction, Luminescence-Depletion Imaging of Isolated, Giant, CdSe/CdS Nanocrystal Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 3662-3667.	3.1	31
23	Accumulation and Interaction of Hypericin in Low-density Lipoproteinâ€" A Photophysical Study. Photochemistry and Photobiology, 2008, 84, 706-712.	2.5	30
24	Influence of Chiral Ionic Liquids on Stereoselective Fluorescence Quenching by Photoinduced Electron Transfer in a Naproxen Dyad. Journal of Physical Chemistry B, 2009, 113, 10825-10829.	2.6	28
25	PTOX Mediates Novel Pathways of Electron Transport in Etioplasts of Arabidopsis. Molecular Plant, 2016, 9, 1240-1259.	8.3	27
26	Photophysical properties of wavelength-tunable methylammonium lead halide perovskite nanocrystals. Journal of Materials Chemistry C, 2017, 5, 118-126.	5.5	26
27	What Is the Best Method to Fit Time-Resolved Data? A Comparison of the Residual Minimization and the Maximum Likelihood Techniques As Applied to Experimental Time-Correlated, Single-Photon Counting Data. Journal of Physical Chemistry B, 2016, 120, 2484-2490.	2.6	25
28	Fluorescence-Based Method, Exploiting Lipofuscin, for Real-Time Detection of Central Nervous System Tissues on Bovine Carcasses. Journal of Agricultural and Food Chemistry, 2008, 56, 6220-6226.	5.2	23
29	Generation of Fluorescent Adducts of Malondialdehyde and Amino Acids: Toward an Understanding of LipofuscinÂ¶. Photochemistry and Photobiology, 2004, 79, 21.	2.5	19
30	Influence of Chiral Ionic Liquids on the Excited-State Properties of Naproxen Analogs. Journal of Physical Chemistry B, 2008, 112, 7555-7559.	2.6	19
31	Fluorescence Spectroscopy of the Retina for Diagnosis of Transmissible Spongiform Encephalopathies. Analytical Chemistry, 2010, 82, 4097-4101.	6.5	16
32	Fluorescence Properties of Recombinant Tropomyosin Containing Tryptophan, 5-Hydroxytryptophan and 7-Azatryptophan. Photochemistry and Photobiology, 1999, 70, 719-730.	2.5	15
33	Comparison of the Dielectric Response Obtained from Fluorescence Upconversion Measurements and Molecular Dynamics Simulations for Coumarin 153â˘'Apomyoglobin Complexes and Structural Analysis of the Complexes by NMR and Fluorescence Methods. Journal of Physical Chemistry A, 2011, 115, 3630-3641.	2.5	15
34	Tryptophan and ATTO 590: Mutual Fluorescence Quenching and Exciplex Formation. Journal of Physical Chemistry B, 2014, 118, 8471-8477.	2.6	15
35	Tailoring Nanoscale Morphology of Polymer:Fullerene Blends Using Electrostatic Field. ACS Applied Materials & Interfaces, 2017, 9, 2678-2685.	8.0	14
36	Germaniumâ€"Tin/Cadmium Sulfide Core/Shell Nanocrystals with Enhanced Near-Infrared Photoluminescence. Chemistry of Materials, 2017, 29, 6012-6021.	6.7	14

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37	Coupling of Large-Amplitude Side Chain Motions to the Excited-State H-Atom Transfer of Perylene Quinones:â€‰ Application of Theory and Experiment to Calphostin C. Journal of Physical Chemistry A, 2001, 105, 1057-1060.	2.5	13
38	Monitoring the Accumulation of Lipofuscin in Aging Murine Eyes by Fluorescence Spectroscopy. Photochemistry and Photobiology, 2009, 85, 234-238.	2.5	13
39	Characterizing the Solvation Characteristics of Deep Eutectic Solvents Composed of Active Pharmaceutical Ingredients as a Hydrogen Bond Donor and/or Acceptor. ACS Sustainable Chemistry and Engineering, 2022, 10, 3066-3078.	6.7	13
40	Using ATTO Dyes To Probe the Photocatalytic Activity of Auâ€"CdS Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 676-683.	3.1	11
41	Photoinduced Transâ€toâ€cis Phase Transition of Polycrystalline Azobenzene at Low Irradiance Occurs in the Solid State. ChemPhysChem, 2017, 18, 2526-2532.	2.1	10
42	Characterization of the Interactions of Fluorescent Probes with Proteins: Coumarin 153 and 1,8-ANS in Complex with Holo- and Apomyoglobin. Photochemistry and Photobiology, 2006, 82, 1586-1590.	2.5	9
43	Generation of Fluorescent Adducts of Malondialdehyde and Amino Acids: Toward an Understanding of Lipofuscin^{Â¶}. Photochemistry and Photobiology, 2004, 79, 21-25.	2.5	8
44	Photon Counting Data Analysis: Application of the Maximum Likelihood and Related Methods for the Determination of Lifetimes in Mixtures of Rose Bengal and Rhodamine B. Journal of Physical Chemistry A, 2017, 121, 122-132.	2.5	7
45	Exploiting Fluorescence Spectroscopy To Identify Magnetic Ionic Liquids Suitable for the Isolation of Oligonucleotides. Journal of Physical Chemistry B, 2018, 122, 7747-7756.	2.6	7
46	Characterization of the Photophysical Behavior of DFHBI Derivatives: Fluorogenic Molecules that Illuminate the Spinach RNA Aptamer. Journal of Physical Chemistry B, 2019, 123, 2536-2545.	2.6	7
47	A Bayesian Approach for Extracting Fluorescence Lifetimes from Sparse Data Sets and Its Significance for Imaging Experiments. Photochemistry and Photobiology, 2019, 95, 773-779.	2.5	7
48	The Number of Accumulated Photons and the Quality of Stimulated Emission Depletion Lifetime Images. Photochemistry and Photobiology, 2014, 90, 767-772.	2.5	6
49	Diffusional Dynamics of Tetraalkylphosphonium Ionic Liquid Films Measured by Fluorescence Correlation Spectroscopy. Journal of Physical Chemistry B, 2019, 123, 4943-4949.	2.6	6
50	Bright Deep Blue TADF OLEDs: The Role of Triphenylphosphine Oxide in NPB/TPBi:PPh₃O Exciplex Emission. Advanced Optical Materials, 2020, 8, 0191282.	7.3	6
51	The degradation of chlorophyll pigments in dairy silage: the timeline of anaerobic fermentation. Journal of the Science of Food and Agriculture, 2021, 101, 2863-2868.	3.5	6
52	Multidimensional Reaction Coordinate for the Excited-state H-atom Transfer in Perylene Quinones: Importance of the 7-Membered Ring in Hypocrellins A and B. Photochemistry and Photobiology, 2000, 71, 166-172.	2.5	5
53	Determination of the Concentration of Potential Efflux Pump Inhibitors, Pheophorbide <i>a</i> and Pyropheophorbide <i>a</i>, in the Feces of Animals by Fluorescence Spectroscopy. Journal of Agricultural and Food Chemistry, 2012, 60, 10456-10460.	5.2	5
54	Using Fluorescence Spectroscopy To Identify Milk from Grass-Fed Dairy Cows and To Monitor Its Photodegradation. Journal of Agricultural and Food Chemistry, 2018, 66, 2168-2173.	5.2	5

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55	Fluorescence quenching of the SYBR Green I-dsDNA complex by in situ generated magnetic ionic liquids. Analytical and Bioanalytical Chemistry, 2020, 412, 2743-2754.	3.7	5
56	Fast and non-destructive determination of water content in ionic liquids at varying temperatures by Raman spectroscopy and multivariate regression analysis. Analytica Chimica Acta, 2021, 1188, 339164.	5.4	5
57	A Comparison of the Fluorescence Spectra of Murine and Bovine Central Nervous System and Other Tissues. Photochemistry and Photobiology, 2009, 85, 1322-1326.	2.5	4
58	Hypocrellin A Photosensitization Involves an Intracellular pH Decrease in 3T3 Cells. Photochemistry and Photobiology, 1998, 68, 44.	2.5	4
59	Temperature-Dependent Constrained Diffusion of Micro-Confined Alkylimidazolium Chloride Ionic Liquids. Journal of Physical Chemistry B, 2022, 126, 4324-4333.	2.6	4
60	Applications of fluorescence spectroscopy to problems of food safety: detection of fecal contamination and of the presence of central nervous system tissue and diagnosis of neurological disease. Proceedings of SPIE, 2010, , .	0.8	3
61	Characterizing Electric Field Exposed P3HT Thin Films Using Polarizedâ€Light Spectroscopies. Macromolecular Chemistry and Physics, 2016, 217, 1801-1809.	2.2	3
62	Spectral Narrowing Accompanies Enhanced Spatial Resolution in Saturated Coherent Anti-Stokes Raman Scattering (CARS): Comparisons of Experiment and Theory. Journal of Physical Chemistry A, 2020, 124, 4305-4313.	2.5	3
63	Localization of Nonblinking Point Sources Using Higher-Order-Mode Detection and Optical Heterodyning: Developing a Strategy for Extending the Scope of Molecular, Super-resolution Imaging. Journal of Physical Chemistry B, 2021, 125, 3092-3104.	2.6	3
64	Photophysics of Hypericin and Hypocrellin A in Complex with Subcellular Components: Interactions with Human Serum Albumin. Photochemistry and Photobiology, 1999, 69, 633.	2.5	3
65	Fluorescence Spectroscopy of the Retina for the Screening of Bovine Spongiform Encephalopathy. Journal of Agricultural and Food Chemistry, 2016, 64, 320-325.	5.2	2
66	The Role of Oxygen in the Antiviral Activity of Hypericin and Hypocrellin. Photochemistry and Photobiology, 1998, 68, 593.	2.5	2
67	Tumor Cell Toxicity of Hypericin and Related AnalogsÂ¶. Photochemistry and Photobiology, 2007, 74, 216-220.	2.5	1
68	Picosecond Dynamics of a Peptide from the Acetylcholine Receptor Interacting with a Neurotoxin Probed by Tailored Tryptophan FluorescenceÂ¶. Photochemistry and Photobiology, 2003, 77, 151-157.	2.5	1
69	Fluorescence Spectroscopy of the Retina from Scrapieâ€Infected Mice. Photochemistry and Photobiology, 2013, 89, 864-868.	2.5	1
70	Nanosecond, Time-Resolved Shift of the Photoluminescence Spectra of Organic, Lead-Halide Perovskites Reveals Structural Features Resulting from Excess Organic Ammonium Halide. Journal of Physical Chemistry C, 2019, 123, 29964-29971.	3.1	1
71	Synthetic Control of the Photoluminescence Stability of Organolead Halide Perovskites. Journal of the Mexican Chemical Society, 2019, 63, .	0.6	1
72	The Separation of Hypericin's Enantiomers and Their Photophysics in Chiral Environments^{Â¶}. Photochemistry and Photobiology, 2005, 81, 183-186.	2.5	0

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73	Environment of Tryptophan 57 in Porcine Fructose-1,6-bisphosphatase Studied by Time-resolved Fluorescence and Site-directed MutagenesisÂ¶. Photochemistry and Photobiology, 2007, 74, 679-685.	2.5	0
74	Organic-Inorganic Nanocomposites: Organicâˆ'Inorganic Nanocomposites by Placing Conjugated Polymers in Intimate Contact with Quantum Rods (Adv. Mater. 25/2011). Advanced Materials, 2011, 23, 2843-2843.	21.0	0
75	Innentitelbild: Semiconductor Anisotropic Nanocomposites Obtained by Directly Coupling Conjugated Polymers with Quantum Rods (Angew. Chem. 17/2011). Angewandte Chemie, 2011, 123, 3902-3902.	2.0	0
76	Inside Cover: Semiconductor Anisotropic Nanocomposites Obtained by Directly Coupling Conjugated Polymers with Quantum Rods (Angew. Chem. Int. Ed. 17/2011). Angewandte Chemie - International Edition, 2011, 50, 3818-3818.	13.8	0
77	Inorganic Semiconductor Quantum Dots as a Saturated Excitation (SAX) Probe for Subâ€Diffraction Imaging. ChemPhotoChem, 2021, 5, 253-259.	3.0	0