Jacob W Petrich

List of Publications by Year
in descending order

77	2,153	218677	233421
papers	citations	26 h-index	45 g-index

78	78	78	3283
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Temperature-Dependent Constrained Diffusion of Micro-Confined Alkylimidazolium Chloride Ionic Liquids. Journal of Physical Chemistry B, 2022, 126, 4324-4333.	2.6	4
3	Inorganic Semiconductor Quantum Dots as a Saturated Excitation (SAX) Probe for Subâ€Diffraction Imaging. ChemPhotoChem, 2021, 5, 253-259.	3.0	0
4	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
5	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
6	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
7	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
8	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
9	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
10	Unveiling the Photoâ€•and Thermalâ€Stability of Cesium Lead Halide Perovskite Nanocrystals. ChemPhysChem, 2019, 20, 2647-2656.	2.1	44
11	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
12	Diffusional Dynamics of Tetraalkylphosphonium Ionic Liquid Films Measured by Fluorescence Correlation Spectroscopy. Journal of Physical Chemistry B, 2019, 123, 4943-4949.	2.6	6
13	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
14	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
15	Synthetic Control of the Photoluminescence Stability of Organolead Halide Perovskites. Journal of the Mexican Chemical Society, 2019, 63, .	0.6	1
16	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
17	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
18	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

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19	Photophysical properties of wavelength-tunable methylammonium lead halide perovskite nanocrystals. Journal of Materials Chemistry C, 2017, 5, 118-126.	5.5	26
20	Tailoring Nanoscale Morphology of Polymer:Fullerene Blends Using Electrostatic Field. ACS Applied Materials & Interfaces, 2017, 9, 2678-2685.	8.0	14
21	Using ATTO Dyes To Probe the Photocatalytic Activity of Auâ€“CdS Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 676-683.	3.1	11
22	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
23	Germaniumâ€“Tin/Cadmium Sulfide Core/Shell Nanocrystals with Enhanced Near-Infrared Photoluminescence. Chemistry of Materials, 2017, 29, 6012-6021.	6.7	14
24	Characterizing Electric Field Exposed P3HT Thin Films Using Polarizedâ€Light Spectroscopies. Macromolecular Chemistry and Physics, 2016, 217, 1801-1809.	2.2	3
25	Solution-Processed Bil₃ Thin Films for Photovoltaic Applications: Improved Carrier Collection via Solvent Annealing. Chemistry of Materials, 2016, 28, 6567-6574.	6.7	132
26	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
27	PTOX Mediates Novel Pathways of Electron Transport in Etioplasts of Arabidopsis. Molecular Plant, 2016, 9, 1240-1259.	8.3	27
28	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
29	Shape Evolution and Single Particle Luminescence of Organometal Halide Perovskite Nanocrystals. ACS Nano, 2015, 9, 2948-2959.	14.6	252
30	The Number of Accumulated Photons and the Quality of Stimulated Emission Depletion Lifetime Images. Photochemistry and Photobiology, 2014, 90, 767-772.	2.5	6
31	Tryptophan and ATTO 590: Mutual Fluorescence Quenching and Exciplex Formation. Journal of Physical Chemistry B, 2014, 118, 8471-8477.	2.6	15
32	Subdiffraction, Luminescence-Depletion Imaging of Isolated, Giant, CdSe/CdS Nanocrystal Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 3662-3667.	3.1	31
33	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
34	Fluorescence Spectroscopy of the Retina from Scrapieâ€Infected Mice. Photochemistry and Photobiology, 2013, 89, 864-868.	2.5	1
35	Supercontinuum Stimulated Emission Depletion Fluorescence Lifetime Imaging. Journal of Physical Chemistry B, 2012, 116, 7821-7826.	2.6	39
36	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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37	Determination of the Concentration of Potential Efflux Pump Inhibitors, Pheophorbide a and Pyropheophorbide a, in the Feces of Animals by Fluorescence Spectroscopy. Journal of Agricultural and Food Chemistry, 2012, 60, 10456-10460.	5.2	5
38	Enhanced charge separation in organic photovoltaic films doped with ferroelectric dipoles. Energy and Environmental Science, 2012, 5, 7042.	30.8	106
39	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
40	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
41	Organic-Inorganic Nanocomposites: Organicâ^'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
42	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
43	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
44	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
45	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
46	Fluorescence Spectroscopy of the Retina for Diagnosis of Transmissible Spongiform Encephalopathies. Analytical Chemistry, 2010, 82, 4097-4101.	6.5	16
47	Monitoring the Accumulation of Lipofuscin in Aging Murine Eyes by Fluorescence Spectroscopy. Photochemistry and Photobiology, 2009, 85, 234-238.	2.5	13
48	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
49	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
50	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
51	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
52	Accumulation and Interaction of Hypericin in Low-density Lipoproteinâ€" A Photophysical Study. Photochemistry and Photobiology, 2008, 84, 706-712.	2.5	30
53	Dynamic Solvation in Phosphonium Ionic Liquids:â€‰ Comparison of Bulk and Micellar Systems and Considerations for the Construction of the Solvation Correlation Function, C(t). Journal of Physical Chemistry B, 2008, 112, 3390-3396.	2.6	48
54	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

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55	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
56	Photophysics and Multifunctionality of Hypericin-Like Pigments in Heterotrich Ciliates: A Phylogenetic Perspective. Photochemistry and Photobiology, 2007, 83, 1074-1094.	2.5	34
57	Tumor Cell Toxicity of Hypericin and Related AnalogsÂ¶. Photochemistry and Photobiology, 2007, 74, 216-220.	2.5	1
58	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
59	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
60	Dynamic Solvation in Imidazolium-Based Ionic Liquids on Short Time Scales. Journal of Physical Chemistry A, 2006, 110, 9549-9554.	2.5	60
61	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
62	The Separation of Hypericin's Enantiomers and Their Photophysics in Chiral Environments^{Â¶}. Photochemistry and Photobiology, 2005, 81, 183-186.	2.5	0
63	Generation of Fluorescent Adducts of Malondialdehyde and Amino Acids: Toward an Understanding of LipofuscinÂ¶. Photochemistry and Photobiology, 2004, 79, 21.	2.5	19
64	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
65	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
66	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
67	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
68	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
69	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
70	Fluorescence Properties of Recombinant Tropomyosin Containing Tryptophan, 5-Hydroxytryptophan and 7-Azatryptophan. Photochemistry and Photobiology, 1999, 70, 719-730.	2.5	15
71	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
72	The Role of Oxygen in the Antiviral Activity of Hypericin and Hypocrellin. Photochemistry and Photobiology, 1998, 68, 593-597.	2.5	45

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73	Hypocrellin A Photosensitization Involves an Intracellular pH Decrease in 3T3 Cells. Photochemistry and Photobiology, 1998, 68, 44-50.	2.5	55
74	Hypocrellin A Photosensitization Involves an Intracellular pH Decrease in 3T3 Cells. Photochemistry and Photobiology, 1998, 68, 44.	2.5	4
75	The Role of Oxygen in the Antiviral Activity of Hypericin and Hypocrellin. Photochemistry and Photobiology, 1998, 68, 593.	2.5	2
76	Research at the Interface between Chemistry and Virology:Â Development of a Molecular Flashlight. Chemical Reviews, 1996, 96, 523-536.	47.7	148
77	Internal motion and electron transfer in proteins: a picosecond fluorescence study of three homologous azurins. Biochemistry, 1987, 26, 2711-2722.	2.5	111