

John M Papanikolas

List of Publications by Year in descending order

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108
papers

5,528
citations

87888

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85541

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110
docs citations

110
times ranked

6146
citing authors

#	ARTICLE	IF	CITATIONS
1	A Semiconductor-Mediator-Catalyst Artificial Photosynthetic System for Photoelectrochemical Water Oxidation. <i>Chemistry - A European Journal</i> , 2022, 28, e202102630.	3.3	4
2	Ruthenium Dyes, Charge Transfer, and the Sun. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 1812-1812.	0.0	0
3	It Is Good to Be Flexible: Energy Transport Facilitated by Conformational Fluctuations in Light-Harvesting Polymers. <i>Journal of Physical Chemistry B</i> , 2021, 125, 5885-5896.	2.6	0
4	Ultrafast Energy Transfer in Fully Conjugated Thiophene-Benzothiadiazole Capped Poly(Phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.1	5
5	Ultrafast Relaxations in Ruthenium Polypyridyl Chromophores Determined by Stochastic Kinetics Simulations. <i>Journal of Physical Chemistry B</i> , 2020, 124, 5971-5985.	2.6	13
6	Observation of Phonon Propagation in Germanium Nanowires Using Femtosecond Pump-Probe Microscopy. <i>ACS Photonics</i> , 2019, 6, 2213-2222.	6.6	17
7	Interfacial electron transfer yields in dye-sensitized NiO photocathodes correlated to excited-state dipole orientation of ruthenium chromophores. <i>Canadian Journal of Chemistry</i> , 2018, 96, 865-874.	1.1	11
8	Completing a Charge Transport Chain for Artificial Photosynthesis. <i>Journal of the American Chemical Society</i> , 2018, 140, 9823-9826.	13.7	20
9	Role of Structure in Ultrafast Charge Separation and Recombination in Naphthalene Diimide End-Capped Thiophene Oligomers. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18802-18808.	3.1	12
10	Pathways Following Electron Injection: Medium Effects and Cross-Surface Electron Transfer in a Ruthenium-Based, Chromophore-Catalyst Assembly on TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2018, 122, 13017-13026.	3.1	10
11	Interfacial Dynamics within an Organic Chromophore-Based Water Oxidation Molecular Assembly. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16651-16659.	8.0	5
12	Chromophore-Catalyst Assembly for Water Oxidation Prepared by Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 39018-39026.	8.0	32
13	Cyclometalated Platinum-Containing Diketopyrrolopyrrole Complexes and Polymers: Photophysics and Photovoltaic Applications. <i>Chemistry of Materials</i> , 2017, 29, 8449-8461.	6.7	27
14	Probing Intrawire, Interwire, and Diameter-Dependent Variations in Silicon Nanowire Surface Trap Density with Pump-Probe Microscopy. <i>Nano Letters</i> , 2017, 17, 5956-5961.	9.1	17
15	Enabling Efficient Creation of Long-Lived Charge-Separation on Dye-Sensitized NiO Photocathodes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26786-26796.	8.0	45
16	Self-Catalyzed Vapor-Liquid-Solid Growth of Lead Halide Nanowires and Conversion to Hybrid Perovskites. <i>Nano Letters</i> , 2017, 17, 7561-7568.	9.1	37
17	Photoinduced Electron Transfer in Naphthalene Diimide End-Capped Thiophene Oligomers. <i>Journal of Physical Chemistry A</i> , 2017, 121, 9579-9588.	2.5	29
18	Intrinsic gain and gain degradation modulated by excitation pulse width in a semiconducting conjugated polymer. <i>Optics and Laser Technology</i> , 2017, 94, 77-85.	4.6	7

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19	Ultrafast kinetics of supramolecules with a Ru(II)- or Os(II)-polypyridyl light absorber, cis-Rh(III)Cl ₂ -polypyridyl electron collector, and 2,3-bis(2-pyridyl)pyrazine bridge. <i>Inorganica Chimica Acta</i> , 2017, 454, 266-274.	2.4	8
20	Ultrafast Recombination Dynamics in Dye-Sensitized SnO ₂ /TiO ₂ Core/Shell Films. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 5297-5301.	4.6	41
21	Efficient Light-Driven Oxidation of Alcohols Using an Organic Chromophore-Catalyst Assembly Anchored to TiO ₂ . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 9125-9133.	8.0	34
22	Growth and Post-Deposition Treatments of SrTiO ₃ Films for Dye-Sensitized Photoelectrosynthesis Cell Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12282-12290.	8.0	12
23	The University of North Carolina Energy Frontier Research Center: Center for Solar Fuels. <i>ACS Energy Letters</i> , 2016, 1, 872-874.	17.4	1
24	Direct observation of light-driven, concerted electron-proton transfer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11106-11109.	7.1	27
25	Role of Macromolecular Structure in the Ultrafast Energy and Electron Transfer Dynamics of a Light-Harvesting Polymer. <i>Journal of Physical Chemistry B</i> , 2016, 120, 7937-7948.	2.6	7
26	Finding the Way to Solar Fuels with Dye-Sensitized Photoelectrosynthesis Cells. <i>Journal of the American Chemical Society</i> , 2016, 138, 13085-13102.	13.7	317
27	Light-Driven Water Oxidation Using Polyelectrolyte Layer-by-Layer Chromophore-Catalyst Assemblies. <i>ACS Energy Letters</i> , 2016, 1, 339-343.	17.4	40
28	Polymer-Based Ruthenium(II) Polypyridyl Chromophores on TiO ₂ for Solar Energy Conversion. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1257-1267.	3.3	25
29	Imaging Spatial Variations in the Dissipation and Transport of Thermal Energy within Individual Silicon Nanowires Using Ultrafast Microscopy. <i>Nano Letters</i> , 2016, 16, 434-439.	9.1	11
30	Disentangling the Physical Processes Responsible for the Kinetic Complexity in Interfacial Electron Transfer of Excited Ru(II) Polypyridyl Dyes on TiO ₂ . <i>Journal of the American Chemical Society</i> , 2016, 138, 4426-4438.	13.7	84
31	Ultrafast Dynamics in Multifunctional Ru(II)-Loaded Polymers for Solar Energy Conversion. <i>Accounts of Chemical Research</i> , 2015, 48, 818-827.	15.6	35
32	Application of Degenerately Doped Metal Oxides in the Study of Photoinduced Interfacial Electron Transfer. <i>Journal of Physical Chemistry B</i> , 2015, 119, 7698-7711.	2.6	36
33	Pump-probe microscopy: Visualization and spectroscopy of ultrafast dynamics at the nanoscale. <i>Chemical Physics</i> , 2015, 458, 30-40.	1.9	56
34	Molecular Chromophore-Catalyst Assemblies for Solar Fuel Applications. <i>Chemical Reviews</i> , 2015, 115, 13006-13049.	47.7	412
35	Ru(bpy) ₃ ²⁺ derivatized polystyrenes constructed by nitroxide-mediated radical polymerization. Relationship between polymer chain length, structure and photophysical properties. <i>Polymer Chemistry</i> , 2015, 6, 8184-8193.	3.9	23
36	Ultrafast, Light-Induced Electron Transfer in a Perylene Diimide Chromophore-Donor Assembly on TiO ₂ . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4736-4742.	4.6	20

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37	İ€-Conjugated Organometallic Isoindigo Oligomer and Polymer Chromophores: Singlet and Triplet Excited State Dynamics and Application in Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26828-26838.	8.0	32
38	Varying the Electronic Structure of Surface-Bound Ruthenium(II) Polypyridyl Complexes. Inorganic Chemistry, 2015, 54, 460-469.	4.0	56
39	Light-Harvesting Polymers: Ultrafast Energy Transfer in Polystyrene-Based Arrays of İ€-Conjugated Chromophores. Journal of Physical Chemistry B, 2014, 118, 372-378.	2.6	26
40	Driving Force Dependent, Photoinduced Electron Transfer at Degenerately Doped, Optically Transparent Semiconductor Nanoparticle Interfaces. Journal of the American Chemical Society, 2014, 136, 15869-15872.	13.7	43
41	Light Harvesting and Charge Separation in a İ€-Conjugated Antenna Polymer Bound to TiO ₂ . Journal of Physical Chemistry C, 2014, 118, 28535-28541.	3.1	31
42	Reversible Strain-Induced Electron-Hole Recombination in Silicon Nanowires Observed with Femtosecond Pump-Probe Microscopy. Nano Letters, 2014, 14, 6287-6292.	9.1	34
43	Photophysical Characterization of a Chromophore/Water Oxidation Catalyst Containing a Layer-by-Layer Assembly on Nanocrystalline TiO ₂ Using Ultrafast Spectroscopy. Journal of Physical Chemistry A, 2014, 118, 10301-10308.	2.5	45
44	Ultrafast Carrier Dynamics in Individual Silicon Nanowires: Characterization of Diameter-Dependent Carrier Lifetime and Surface Recombination with Pump-Probe Microscopy. Journal of Physical Chemistry C, 2014, 118, 8634-8640.	3.1	50
45	Photophysical Characterization of a Helical Peptide Chromophore-Water Oxidation Catalyst Assembly on a Semiconductor Surface Using Ultrafast Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 6029-6037.	3.1	30
46	Photoinduced Interfacial Electron Transfer within a Mesoporous Transparent Conducting Oxide Film. Journal of the American Chemical Society, 2014, 136, 2208-2211.	13.7	47
47	Imaging Charge Separation and Carrier Recombination in Nanowire p-i-n Junctions Using Ultrafast Microscopy. Nano Letters, 2014, 14, 3079-3087.	9.1	48
48	Ultrafast Carrier Dynamics of Silicon Nanowire Ensembles: The Impact of Geometrical Heterogeneity on Charge Carrier Lifetime. Journal of Physical Chemistry C, 2014, 118, 8626-8633.	3.1	18
49	Poly(fluorene-co-thiophene)-based ionic transition-metal complex polymers for solar energy harvesting and storage applications. Polymer Chemistry, 2014, 5, 2363.	3.9	33
50	Frequency Modulated Femtosecond Stimulated Raman Spectroscopy of Ultrafast Energy Transfer in a Donor-Acceptor Copolymer. Journal of Physical Chemistry B, 2013, 117, 8245-8255.	2.6	25
51	Watching Photoactivation in a Ru(II) Chromophore-Catalyst Assembly on TiO ₂ by Ultrafast Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 24250-24258.	3.1	41
52	Synthetically Encoding 10 nm Morphology in Silicon Nanowires. Nano Letters, 2013, 13, 6281-6286.	9.1	87
53	Ultrafast Formation of a Long-Lived Charge-Separated State in a Ru-Loaded Poly(3-hexylthiophene) Light-Harvesting Polymer. Journal of Physical Chemistry Letters, 2013, 4, 2269-2273.	4.6	22
54	Pump-Probe Microscopy: Spatially Resolved Carrier Dynamics in ZnO Rods and the Influence of Optical Cavity Resonator Modes. Journal of Physical Chemistry B, 2013, 117, 4390-4398.	2.6	26

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55	Interfacial Energy Conversion in Ru ^{II} Polypyridyl-Derivatized Oligoproline Assemblies on TiO ₂ . Journal of the American Chemical Society, 2013, 135, 5250-5253.	13.7	44
56	Distance Dependence of Intrahelix Ru ^{II} * to Os ^{II} Polypyridyl Excited-State Energy Transfer in Oligoproline Assemblies. Journal of Physical Chemistry B, 2013, 117, 6352-6363.	2.6	10
57	Direct Imaging of Free Carrier and Trap Carrier Motion in Silicon Nanowires by Spatially-Separated Femtosecond Pump-Probe Microscopy. Nano Letters, 2013, 13, 1336-1340.	9.1	120
58	Triplet Excitation Energy Dynamics in Metal-Organic Frameworks. Journal of Physical Chemistry C, 2013, 117, 22250-22259.	3.1	54
59	Hybrid Standing Wave and Whispering Gallery Modes in Needle-Shaped ZnO Rods: Simulation of Emission Microscopy Images Using Finite Difference Frequency Domain Methods with a Focused Gaussian Source. Journal of Physical Chemistry C, 2013, 117, 10653-10660.	3.1	10
60	Intrinsic optical gain in thin films of a conjugated polymer under picosecond excitation. Applied Physics Letters, 2013, 103, .	3.3	10
61	Morphology and chain aggregation dependence of optical gain in thermally annealed films of the conjugated polymer poly[2-methoxy-5-(2-ethylhexyloxy)-p-phenylene vinylene]. Journal of Applied Physics, 2013, 113, 233509.	2.5	21
62	Enhancement of optical gain and amplified spontaneous emission due to waveguide geometry in the conjugated polymer poly[2-methoxy-5-(2-ethylhexyloxy)-p-phenylene vinylene]. Applied Physics Letters, 2013, 102, .	3.3	27
63	Chemical approaches to artificial photosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15560-15564.	7.1	366
64	Controlling Morphology and Chain Aggregation in Semiconducting Conjugated Polymers: The Role of Solvent on Optical Gain in MEH-PPV. Journal of Physical Chemistry B, 2012, 116, 12835-12841.	2.6	27
65	Competition between Ultrafast Energy Flow and Electron Transfer in a Ru(II)-Loaded Polyfluorene Light-Harvesting Polymer. Journal of Physical Chemistry Letters, 2012, 3, 2453-2457.	4.6	30
66	Base-Induced Phototautomerization in 7-Hydroxy-4-(trifluoromethyl)coumarin. Journal of Physical Chemistry B, 2012, 116, 14886-14891.	2.6	21
67	Tunable Energy Transfer Rates via Control of Primary, Secondary, and Tertiary Structure of a Coiled Coil Peptide Scaffold. Inorganic Chemistry, 2012, 51, 11324-11338.	4.0	17
68	The End Is Different than The Middle: Spatially Dependent Dynamics in ZnO Rods Observed by Femtosecond Pump-Probe Microscopy. Journal of Physical Chemistry Letters, 2011, 2, 1777-1781.	4.6	45
69	Competing Pathways in the Photo-Proton-Coupled Electron Transfer Reduction of		

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73	Solar Fuels and Next Generation Photovoltaics: The UNC-CH Energy Frontier Research Center. <i>Catalysis Letters</i> , 2011, 141, 1-7.	2.6	18
74	Concerted electron-proton transfer in the optical excitation of hydrogen-bonded dyes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 8554-8558.	7.1	99
75	Energy Transfer Dynamics in Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2010, 132, 12767-12769.	13.7	328
76	Integrating proton coupled electron transfer (PCET) and excited states. <i>Coordination Chemistry Reviews</i> , 2010, 254, 2459-2471.	18.8	155
77	Direct Imaging of Optical Cavity Modes in ZnO Rods Using Second Harmonic Generation Microscopy. <i>Journal of Physical Chemistry A</i> , 2010, 114, 1241-1246.	2.5	23
78	Efficient, long-range energy migration in RuII polypyridyl derivatized polystyrenes in rigid media. Antennae for artificial photosynthesis. <i>Dalton Transactions</i> , 2009, , 3903.	3.3	27
79	Exciton Dynamics and Biexciton Formation in Single-Walled Carbon Nanotubes Studied with Femtosecond Transient Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2008, 112, 4507-4516.	3.1	58
80	"Partial Derivatives: Are You Kidding?": Teaching Thermodynamics Using Virtual Substance. <i>ACS Symposium Series</i> , 2007, , 194-206.	0.5	2
81	Excited-State Quenching by Proton-Coupled Electron Transfer. <i>Journal of the American Chemical Society</i> , 2007, 129, 6968-6969.	13.7	104
82	Application of time-resolved near-infrared spectroscopy (TRNIR) to the metal-to-ligand charge transfer (MLCT) excited state(s) of. <i>Chemical Physics</i> , 2006, 326, 71-78.	1.9	15
83	Ultrafast Energy Transfer between the 3MLCT State of [RuII(dmb)2(bpy-an)]2+ and the Covalently Appended Anthracene. <i>Journal of Physical Chemistry A</i> , 2005, 109, 2472-2475.	2.5	38
84	Ultrafast Dynamics of Single-Walled Carbon Nanotubes Dispersed in Polymer Films. <i>Journal of Physical Chemistry A</i> , 2005, 109, 289-292.	2.5	21
85	Detection of Adsorption of Ru(II) and Os(II) Polypyridyl Complexes on Gold and Silver Nanoparticles by Single-Photon Counting Emission Measurements. <i>Journal of Physical Chemistry B</i> , 2005, 109, 804-810.	2.6	36
86	The Synthesis and Characterization of Energy-Conducting Polymers with Pendant Inorganic Chromophores. <i>Materials Research Society Symposia Proceedings</i> , 2004, 847, 411.	0.1	0
87	Ultrafast Transient Absorption Spectroscopy Investigations of Excited State Dynamics in SWNT/Polymer Composites. <i>Materials Research Society Symposia Proceedings</i> , 2004, 858, 312.	0.1	0
88	[Ru(bpy)2dppz]2+ Light-Switch Mechanism in Protic Solvents as Studied through Temperature-Dependent Lifetime Measurements. <i>Journal of Physical Chemistry A</i> , 2004, 108, 9938-9944.	2.5	161
89	Interligand Electron Transfer Dynamics in [Os(bpy)3]2+ Exploring the Excited State Potential Surfaces with Femtosecond Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2004, 108, 4998-5006.	2.5	58
90	Energy Migration Dynamics in a Ru(II)- and Os(II)-Based Antenna Polymer Embedded in a Disordered, Rigid Medium. <i>Journal of Physical Chemistry B</i> , 2004, 108, 2205-2209.	2.6	29

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91	Photoinduced Electron Transfer in Nucleic Acid Molten Salts. <i>Journal of Physical Chemistry B</i> , 2003, 107, 6469-6473.	2.6	4
92	Critical Flocculation Concentrations, Binding Isotherms, and Ligand Exchange Properties of Peptide-Modified Gold Nanoparticles Studied by UV-Visible, Fluorescence, and Time-Correlated Single Photon Counting Spectroscopies. <i>Analytical Chemistry</i> , 2003, 75, 5797-5805.	6.5	101
93	Turning the [Ru(bpy) ₂ dppz] ²⁺ Light-Switch On and Off with Temperature. <i>Journal of the American Chemical Society</i> , 2002, 124, 15094-15098.	13.7	199
94	Triplet-Triplet Annihilation of Excited States of Polypyridyl Ru(II) Complexes Bound to Polystyrene. <i>Journal of Physical Chemistry B</i> , 2002, 106, 6156-6162.	2.6	22
95	Investigation of Interligand Electron Transfer in Polypyridyl Complexes of Os(II) Using Femtosecond Polarization Anisotropy Methods: Examination of Os(bpy) ₃ ²⁺ and Os(bpy) ₂ (mab) ₂ ⁺ . <i>Journal of Physical Chemistry A</i> , 2002, 106, 1483-1495.	2.5	78
96	Energy Transfer between Ru(II) and Os(II) Polypyridyl Complexes Linked to Polystyrene. <i>Journal of Physical Chemistry A</i> , 2002, 106, 2328-2334.	2.5	39
97	Ultrafast Excited-State Energy Migration Dynamics in an Efficient Light-Harvesting Antenna Polymer Based on Ru(II) and Os(II) Polypyridyl Complexes. <i>Journal of the American Chemical Society</i> , 2001, 123, 10336-10347.	13.7	125
98	Five Wave Mixing: Surface-Specific Transient Grating Spectroscopy as a Probe of Low Frequency Intermolecular Adsorbate Motion. <i>Physical Review Letters</i> , 2000, 85, 1906-1909.	7.8	5
99	Phase and amplitude control in the formation and detection of rotational wave packets in the E(1 $\hat{\nu}$ g ⁺) state of Li ₂ . <i>Journal of Chemical Physics</i> , 1998, 108, 9259-9274.	3.0	39
100	Compositional control of rovibrational wave packets in the E(1 $\hat{\nu}$ g ⁺) shelf state of Li ₂ via quantum-state-resolved intermediate state selection. <i>Journal of Chemical Physics</i> , 1997, 106, 8310-8323.	3.0	25
101	Manipulation of rovibrational wave packet composition in the Li ₂ E(1 $\hat{\nu}$ g ⁺) shelf state using intermediate state selection and shaped femtosecond laser pulses. <i>Journal of Chemical Physics</i> , 1997, 107, 4172-4178.	3.0	22
102	Quantum-state-resolved 2-level femtosecond rotational coherence spectroscopy: Determination of rotational constants at medium and high J in Li ₂ , a simple diatomic system. <i>Chemical Physics Letters</i> , 1996, 261, 405-413.	2.6	13
103	Recombination and relaxation of molecular ions in size-selected clusters: Monte Carlo and molecular dynamics simulations of I ⁺ (CO) ₂ _n . <i>Journal of Chemical Physics</i> , 1995, 102, 2452-2470.	3.0	68
104	Wavepacket dynamics in the Li ₂ E(1 $\hat{\nu}$ g ⁺) shelf state: Simultaneous observation of vibrational and rotational recurrences with single rovibronic control of an intermediate state. <i>Journal of Chemical Physics</i> , 1995, 103, 7269-7276.	3.0	53
105	I ⁺ (CO) ₂ photodissociation and recombination dynamics in size-selected I ⁺ (CO) ₂ _n cluster ions. <i>Journal of Chemical Physics</i> , 1993, 99, 8733-8750.	3.0	106
106	I ⁺ (CO) ₂ photofragmentation/recombination dynamics in size-selected I ⁺ (CO) ₂ _n cluster ions: Observation of coherent I ⁺ (CO) ₂ vibrational motion. <i>Journal of Chemical Physics</i> , 1992, 97, 7002-7005.	3.0	91
107	Effects of hydrogen bonding on the low-lying electronic states of a model polyene aldehyde. <i>Journal of the American Chemical Society</i> , 1990, 112, 1912-1920.	13.7	24
108	Time-resolved measurements of the photodissociation and recombination dynamics of I ⁺ (CO) ₂ in mass selected cluster ions. <i>Journal of Chemical Physics</i> , 1989, 91, 6533-6534.	3.0	74