Villy SundstrÃ¶m

List of Publications by Year
in descending order

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83 papers	7,813 citations	53794 45 h-index	69250 77 g-index
85 all docs	85 docs citations	85 times ranked	7620 citing authors

#	Article	IF	Citations
1	Photosynthetic Light-Harvesting:Â Reconciling Dynamics and Structure of Purple Bacterial LH2 Reveals Function of Photosynthetic Unit. Journal of Physical Chemistry B, 1999, 103, 2327-2346.	2.6	768
2	Photosynthetic Light-Harvesting Pigmentâ"Protein Complexes:â€‰ Toward Understanding How and Why. Accounts of Chemical Research, 1996, 29, 381-389.	15.6	554
3	Biomimetic and Microbial Approaches to Solar Fuel Generation. Accounts of Chemical Research, 2009, 42, 1899-1909.	15.6	403
4	Exciton Delocalization Length in the B850 Antenna of Rhodobacter sphaeroides. The Journal of Physical Chemistry, 1996, 100, 10787-10792.	2.9	303
5	A low-spin Fe(iii) complex with 100-ps ligand-to-metal charge transfer photoluminescence. Nature, 2017, 543, 695-699.	27.8	287
6	Ultrafast Electron Dynamics in Solar Energy Conversion. Chemical Reviews, 2017, 117, 10940-11024.	47.7	266
7	Luminescence and reactivity of a charge-transfer excited iron complex with nanosecond lifetime. Science, 2019, 363, 249-253.	12.6	249
8	Towards longer-lived metal-to-ligand charge transfer states of iron(ii) complexes: an N-heterocyclic carbene approach. Chemical Communications, 2013, 49, 6412.	4.1	217
9	Effect of a conjugated carbonyl group on the photophysical properties of carotenoids. Physical Chemistry Chemical Physics, 2004, 6, 3009-3016.	2.8	215
10	Dynamics of Electron Injection and Recombination of Dye-Sensitized TiO2Particles. Journal of Physical Chemistry B, 1998, 102, 10505-10514.	2.6	205
11	Intrinsic femtosecond charge generation dynamics in single crystal CH₃NH₃PbI₃. Energy and Environmental Science, 2015, 8, 3700-3707.	30.8	203
12	Fe N-Heterocyclic Carbene Complexes as Promising Photosensitizers. Accounts of Chemical Research, 2016, 49, 1477-1485.	15.6	197
13	Iron sensitizer converts light to electrons with 92% yield. Nature Chemistry, 2015, 7, 883-889.	13.6	193
14	Pumpâ€"probe spectroscopy of dissipative energy transfer dynamics in photosynthetic antenna complexes: A density matrix approach. Journal of Chemical Physics, 1997, 107, 4154-4164.	3.0	174
15	Temperature Dependence of Excitation Transfer in LH2 of Rhodobacter sphaeroides. Journal of Physical Chemistry B, 1997, 101, 10560-10567.	2.6	156
16	Fe^{II} Hexa N-Heterocyclic Carbene Complex with a 528 ps Metal-to-Ligand Charge-Transfer Excited-State Lifetime. Journal of Physical Chemistry Letters, 2018, 9, 459-463.	4.6	151
17	Femtobiology. Annual Review of Physical Chemistry, 2008, 59, 53-77.	10.8	139
18	Dynamics of Excited States of the Carotenoid Peridinin in Polar Solvents:Â Dependence on Excitation Wavelength, Viscosity, and Temperature. Journal of Physical Chemistry B, 2003, 107, 5339-5348.	2.6	138

#	ARTICLE	IF	CITATIONS
19	Role of Adsorption Structures of Zn-Porphyrin on TiO₂ in Dye-Sensitized Solar Cells Studied by Sum Frequency Generation Vibrational Spectroscopy and Ultrafast Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 6066-6080.	3.1	137
20	Visualizing the non-equilibrium dynamics of photoinduced intramolecular electron transfer with femtosecond X-ray pulses. Nature Communications, 2015, 6, 6359.	12.8	134
21	A Heteroleptic Ferrous Complex with Mesoionic Bis(1,2,3â€triazolâ€5â€ylidene) Ligands: Taming the MLCT Excited State of Iron(II). Chemistry - A European Journal, 2015, 21, 3628-3639.	3.3	132
22	Exceptional Excited-State Lifetime of an Iron(II)â€“N-Heterocyclic Carbene Complex Explained. Journal of Physical Chemistry Letters, 2014, 5, 2066-2071.	4.6	125
23	Far-infrared response of free charge carriers localized in semiconductor nanoparticles. Physical Review B, 2009, 79, .	3.2	114
24	Manipulating charge transfer excited state relaxation and spin crossover in iron coordination complexes with ligand substitution. Chemical Science, 2017, 8, 515-523.	7.4	102
25	Mechanism of Charge Transfer and Recombination Dynamics in Organo Metal Halide Perovskites and Organic Electrodes, PCBM, and Spiro-OMeTAD: Role of Dark Carriers. Journal of the American Chemical Society, 2015, 137, 16043-16048.	13.7	101
26	Ultrafast Dynamics of Hole Injection and Recombination in Organometal Halide Perovskite Using Nickel Oxide as p-Type Contact Electrode. Journal of Physical Chemistry Letters, 2016, 7, 1096-1101.	4.6	97
27	â€œSupertrapâ€•at Work: Extremely Efficient Nonradiative Recombination Channels in MAPbI₃ Perovskites Revealed by Luminescence Super-Resolution Imaging and Spectroscopy. ACS Nano, 2017, 11, 5391-5404.	14.6	92
28	Finding intersections between electronic excited state potential energy surfaces with simultaneous ultrafast X-ray scattering and spectroscopy. Chemical Science, 2019, 10, 5749-5760.	7.4	90
29	Spin-state studies with XES and RIXS: From static to ultrafast. Journal of Electron Spectroscopy and Related Phenomena, 2013, 188, 166-171.	1.7	87
30	Femtosecond X-Ray Scattering Study of Ultrafast Photoinduced Structural Dynamics in Solvated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo stretchy="false">[</mml:mo><mml:mi>Co</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mtext) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 292 Td (mathvariant="bold">terpy</mml:mtext><mml:	7.8	86
31	Observing Solvation Dynamics with Simultaneous Femtosecond X-ray Emission Spectroscopy and X-ray Scattering. Journal of Physical Chemistry B, 2016, 120, 1158-1168.	2.6	85
32	Vibrational wavepacket dynamics in Fe carbene photosensitizer determined with femtosecond X-ray emission and scattering. Nature Communications, 2020, 11, 634.	12.8	75
33	Atomistic characterization of the active-site solvation dynamics of a model photocatalyst. Nature Communications, 2016, 7, 13678.	12.8	74
34	Tuning proton coupled electron transfer from tyrosine: A competition between concerted and step-wise mechanisms. Physical Chemistry Chemical Physics, 2004, 6, 4851-4858.	2.8	72
35	Detailed Characterization of a Nanosecond-Lived Excited State: X-ray and Theoretical Investigation of the Quintet State in Photoexcited [Fe(terpy)₂]²⁺. Journal of Physical Chemistry C, 2015, 119, 5888-5902.	3.1	72
36	Unraveling Charge Carriers Generation, Diffusion, and Recombination in Formamidinium Lead Triiodide Perovskite Polycrystalline Thin Film. Journal of Physical Chemistry Letters, 2016, 7, 204-210.	4.6	67

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37	Coherent nuclear motions in light-harvesting pigments and dye molecules, probed by ultrafast spectroscopy. Journal of Raman Spectroscopy, 1995, 26, 513-522.	2.5	65
38	Visible light-driven water oxidation with a subporphyrin sensitizer and a water oxidation catalyst. Chemical Communications, 2016, 52, 13702-13705.	4.1	61
39	Photochemistry of Diiodomethane in Solution Studied by Femtosecond and Nanosecond Laser Photolysis. Formation and Dark Reactions of the CH2Iâ^'I Isomer Photoproduct and Its Role in Cyclopropanation of Olefins. Journal of Physical Chemistry A, 2004, 108, 237-249.	2.5	57
40	Ultrafast dynamics of singlet-singlet and singlet-triplet exciton annihilation in poly(3-<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6 films. Physical Review B, 2007, 75, .	3.2	57
41	Solvent control of charge transfer excited state relaxation pathways in [Fe(2,2â€²-bipyridine)(CN)₄]^{2â^'}. Physical Chemistry Chemical Physics, 2018, 20, 4238-4249.	2.8	52
42	Photophysics and Photochemistry of Iron Carbene Complexes for Solar Energy Conversion and Photocatalysis. Catalysts, 2020, 10, 315.	3.5	52
43	Short-Range Exciton Couplings in LH2 Photosynthetic Antenna Proteins Studied by High Hydrostatic Pressure Absorption Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 8436-8444.	2.6	49
44	Toward Highlighting the Ultrafast Electron Transfer Dynamics at the Optically Dark Sites of Photocatalysts. Journal of Physical Chemistry Letters, 2013, 4, 1972-1976.	4.6	49
45	Tracking the picosecond deactivation dynamics of a photoexcited iron carbene complex by time-resolved X-ray scattering. Chemical Science, 2018, 9, 405-414.	7.4	49
46	Probing the Anisotropic Distortion of Photoexcited Spin Crossover Complexes with Picosecond X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 4536-4545.	3.1	44
47	Photofunctionality of iron(III) N-heterocyclic carbenes and related d transition metal complexes. Coordination Chemistry Reviews, 2021, 426, 213517.	18.8	44
48	Photodissociation Dynamics of Iodoform in Solution. Journal of Physical Chemistry A, 2003, 107, 211-217.	2.5	42
49	Ligand manipulation of charge transfer excited state relaxation and spin crossover in [Fe(2,2â€²-bipyridine)2(CN)2]. Structural Dynamics, 2017, 4, 044030.	2.3	41
50	Hot Branching Dynamics in a Lightâ€Harvesting Iron Carbene Complex Revealed by Ultrafast Xâ€ray Emission Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 364-372.	13.8	41
51	Influence of the Protein Binding Site on the Excited States of Bacteriochlorophyll:Â DFT Calculations of B800 in LH2. Journal of Physical Chemistry B, 2002, 106, 11606-11612.	2.6	39
52	Ultrafast Study of the Photodissociation of Bromoiodomethane in Acetonitrile upon 266 nm Excitation. Journal of Physical Chemistry A, 2002, 106, 5999-6005.	2.5	39
53	Excited-State Proton-Transfer Processes of DHICA Resolved: From Sub-Picoseconds to Nanoseconds. Journal of Physical Chemistry Letters, 2013, 4, 1383-1388.	4.6	37
54	Molecular and Interfacial Calculations of Iron(II) Light Harvesters. ChemSusChem, 2016, 9, 667-675.	6.8	36

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55	Ultrafast light-induced charge pair formation dynamics in poly[3-(2â€²-methoxy-5â€²octylphenyl)thiophene]. Physical Review B, 2004, 70, .	3.2	32
56	Ultrafast conductivity in a low-band-gap polyphenylene and fullerene blend studied by terahertz spectroscopy. Physical Review B, 2009, 79, .	3.2	32
57	Electron and Hole Contributions to the Terahertz Photoconductivity of a Conjugated Polymer:Fullerene Blend Identified. Journal of Physical Chemistry Letters, 2012, 3, 2442-2446.	4.6	32
58	Stepwise Charge Separation from a Rutheniumâ^'Tyrosine Complex to a Nanocrystalline TiO2Film. Journal of Physical Chemistry B, 2004, 108, 12904-12910.	2.6	28
59	Insights into the Charge Carrier Terahertz Mobility in Polyfluorenes from Large-Scale Atomistic Simulations and Time-Resolved Terahertz Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 19665-19672.	3.1	26
60	Sequential Proton-Coupled Electron Transfer Mediates Excited-State Deactivation of a Eumelanin Building Block. Journal of Physical Chemistry Letters, 2017, 8, 1004-1008.	4.6	26
61	Photodissociation of CH2ICH2I, CF2ICF2I, and CF2BrCF2I in Solution. Journal of Physical Chemistry A, 2002, 106, 7090-7098.	2.5	23
62	The tunneling contributions to optical coherence in femtosecond pumpâ€“probe spectroscopy of a three level system. Journal of Chemical Physics, 1996, 104, 5734-5744.	3.0	21
63	Charge Separation and Recombination in a Photoconducting Polymer with Electron Donorâ^'Acceptor Complexes. Journal of Physical Chemistry B, 1998, 102, 7365-7370.	2.6	21
64	Resolving the Turnover of Temperature Dependence of the Reaction Rate in Barrierless Isomerization. Journal of Physical Chemistry B, 1998, 102, 7651-7658.	2.6	19
65	Effects of Immersion Solvent on Photovoltaic and Photophysical Properties of Porphyrin-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 18689-18696.	8.0	18
66	Intermolecular hydrogen bonding between carotenoid and bacteriochlorophyll in LH2. FEBS Letters, 2001, 496, 36-39.	2.8	17
67	Photochemistry of Pheomelanin Building Blocks and Model Chromophores: Excited-State Intra- and Intermolecular Proton Transfer. Journal of Physical Chemistry Letters, 2014, 5, 2094-2100.	4.6	17
68	Laser generated 300 keV electron beams from water. Laser and Particle Beams, 2011, 29, 415-424.	1.0	15
69	Electronic structure and excited state properties of iron carbene photosensitizers â€“ A combined X-ray absorption and quantum chemical investigation. Chemical Physics Letters, 2017, 683, 559-566.	2.6	14
70	Hot Branching Dynamics in a Lightâ€Harvesting Iron Carbene Complex Revealed by Ultrafast Xâ€ray Emission Spectroscopy. Angewandte Chemie, 2020, 132, 372-380.	2.0	14
71	Band-selective dynamics in charge-transfer excited iron carbene complexes. Faraday Discussions, 2019, 216, 191-210.	3.2	12
72	An ultrafast time-resolved anisotropy study of bacteriochlorophyll a in pyridine. FEBS Letters, 2000, 465, 107-109.	2.8	8

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73	Investigating ultrafast carrier dynamics in perovskite solar cells with an extended Ï€-conjugated polymeric diketopyrrolopyrrole layer for hole transportation. RSC Advances, 2020, 10, 6618-6624.	3.6	7
74	Ultrafast Formation of Trinitromethanide (C(NO2)3-) by Photoinduced Dissociative Electron Transfer and Subsequent Ion Pair Coupling Reaction in Acetonitrile and Dichloromethane. Journal of Physical Chemistry B, 2001, 105, 2027-2035.	2.6	5
75	DYNAMICS OF EXCITATION ENERGY TRANSFER IN MOLECULAR AGGREGATES OF CHEMICAL AND BIOLOGICAL RELEVANCE. , 1996, , 199-208.		3
76	Beating Darwin-Bragg losses in lab-based ultrafast x-ray experiments. Structural Dynamics, 2017, 4, 044011.	2.3	3
77	LIQUID PHASE PHOTOCHEMISTRY OF THE DI- AND POLYHALOGENATED ALKANES CONTAINING IODINE: FEMTOSECOND TRANSIENT ABSORPTION STUDY OF THE PHOTODISSOCIATION AND IN-CAGE ISOMERIZATION. , 2002, , .		3
78	Inside Back Cover: A Heteroleptic Ferrous Complex with Mesoionic Bis(1,2,3â€triazolâ€5â€ylidene) Ligands: Taming the MLCT Excited State of Iron(II) (Chem. Eur. J. 9/2015). Chemistry - A European Journal, 2015, 21, 3831-3831.	3.3	1
79	Understanding charge carrier dynamics in solar cell materials using time resolved terahertz spectroscopy. , 2015, , .		1
80	Molecular and Interfacial Calculations of Iron(II) Light Harvesters. ChemSusChem, 2016, 9, 652-652.	6.8	1
81	Ultrafast transport in dye sensitized ZnO nanotips investigated by terahertz spectroscopy. , 2008, , .		0
82	Charge carrier dynamics of quantum dot-sensitized ZnO nanowires probed by time resolved terahertz spectroscopy. , 2011, , .		0
83	LIGHT DRIVEN MULTISTEP ELECTRON TRANSFER IN A TYROSINE-RUTHENIUM-COMPLEX ANCHORED TO TIO₂ NANOPARTICLES. , 2002, , .		0