

Villy Sundström

List of Publications by Year in descending order

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83
papers

7,813
citations

53794

45
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69250

77
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85
all docs

85
docs citations

85
times ranked

7620
citing authors

#	ARTICLE	IF	CITATIONS
1	Photofunctionality of iron(III) N-heterocyclic carbenes and related d transition metal complexes. Coordination Chemistry Reviews, 2021, 426, 213517.	18.8	44
2	Hot Branching Dynamics in a Light-Harvesting Iron Carbene Complex Revealed by Ultrafast X-ray Emission Spectroscopy. Angewandte Chemie, 2020, 132, 372-380.	2.0	14
3	Hot Branching Dynamics in a Light-Harvesting Iron Carbene Complex Revealed by Ultrafast X-ray Emission Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 364-372.	13.8	41
4	Photophysics and Photochemistry of Iron Carbene Complexes for Solar Energy Conversion and Photocatalysis. Catalysts, 2020, 10, 315.	3.5	52
5	Investigating ultrafast carrier dynamics in perovskite solar cells with an extended π -conjugated polymeric diketopyrrolopyrrole layer for hole transportation. RSC Advances, 2020, 10, 6618-6624.	3.6	7
6	Vibrational wavepacket dynamics in Fe carbene photosensitizer determined with femtosecond X-ray emission and scattering. Nature Communications, 2020, 11, 634.	12.8	75
7	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
8	Band-selective dynamics in charge-transfer excited iron carbene complexes. Faraday Discussions, 2019, 216, 191-210.	3.2	12
9	Luminescence and reactivity of a charge-transfer excited iron complex with nanosecond lifetime. Science, 2019, 363, 249-253.	12.6	249
10	Solvent control of charge transfer excited state relaxation pathways in $[\text{Fe}(\text{2,2}'\text{-bipyridine})_2(\text{CN})_4]^{2+}$. Physical Chemistry Chemical Physics, 2018, 20, 4238-4249.	2.8	52
11	Fe^{II} Hexa <i>N</i> -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
12	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
13	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
14	Electronic structure and excited state properties of iron carbene photosensitizers – A combined X-ray absorption and quantum chemical investigation. Chemical Physics Letters, 2017, 683, 559-566.	2.6	14
15	“Supertrap” at Work: Extremely Efficient Nonradiative Recombination Channels in MAPbI_3 Perovskites Revealed by Luminescence Super-Resolution Imaging and Spectroscopy. ACS Nano, 2017, 11, 5391-5404.	14.6	92
16	Ligand manipulation of charge transfer excited state relaxation and spin crossover in $[\text{Fe}(\text{2,2}'\text{-bipyridine})_2(\text{CN})_2]$. Structural Dynamics, 2017, 4, 044030.	2.3	41
17	A low-spin $\text{Fe}(\text{III})$ complex with 100-ps ligand-to-metal charge transfer photoluminescence. Nature, 2017, 543, 695-699.	27.8	287
18	Ultrafast Electron Dynamics in Solar Energy Conversion. Chemical Reviews, 2017, 117, 10940-11024.	47.7	266

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19	Beating Darwin-Bragg losses in lab-based ultrafast x-ray experiments. <i>Structural Dynamics</i> , 2017, 4, 044011.	2.3	3
20	Manipulating charge transfer excited state relaxation and spin crossover in iron coordination complexes with ligand substitution. <i>Chemical Science</i> , 2017, 8, 515-523.	7.4	102
21	Molecular and Interfacial Calculations of Iron(II) Light Harvesters. <i>ChemSusChem</i> , 2016, 9, 667-675.	6.8	36
22	Molecular and Interfacial Calculations of Iron(II) Light Harvesters. <i>ChemSusChem</i> , 2016, 9, 652-652.	6.8	1
23	Atomistic characterization of the active-site solvation dynamics of a model photocatalyst. <i>Nature Communications</i> , 2016, 7, 13678.	12.8	74
24	Femtosecond X-Ray Scattering Study of Ultrafast Photoinduced Structural Dynamics in Solvated Co^{2+} . <i>Journal of Physical Chemistry B</i> , 2016, 120, 1158-1168.	7.8	86
25	Fe ^N -Heterocyclic Carbene Complexes as Promising Photosensitizers. <i>Accounts of Chemical Research</i> , 2016, 49, 1477-1485.	15.6	197
26	Visible light-driven water oxidation with a subporphyrin sensitizer and a water oxidation catalyst. <i>Chemical Communications</i> , 2016, 52, 13702-13705.	4.1	61
27	Observing Solvation Dynamics with Simultaneous Femtosecond X-ray Emission Spectroscopy and X-ray Scattering. <i>Journal of Physical Chemistry B</i> , 2016, 120, 1158-1168.	2.6	85
28	Ultrafast Dynamics of Hole Injection and Recombination in Organometal Halide Perovskite Using Nickel Oxide as p-Type Contact Electrode. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1096-1101.	4.6	97
29	Unraveling Charge Carriers Generation, Diffusion, and Recombination in Formamidinium Lead Triiodide Perovskite Polycrystalline Thin Film. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 204-210.	4.6	67
30	Inside Back Cover: A Heteroleptic Ferrous Complex with Mesoionic Bis(1,2,3-triazol-5-ylidene) Ligands: Taming the MLCT Excited State of Iron(II) (<i>Chem. Eur. J.</i> 9/2015). <i>Chemistry - A European Journal</i> , 2015, 21, 3831-3831.	3.3	1
31	Visualizing the non-equilibrium dynamics of photoinduced intramolecular electron transfer with femtosecond X-ray pulses. <i>Nature Communications</i> , 2015, 6, 6359.	12.8	134
32	Mechanism of Charge Transfer and Recombination Dynamics in Organometal Halide Perovskites and Organic Electrodes, PCBM, and Spiro-OMeTAD: Role of Dark Carriers. <i>Journal of the American Chemical Society</i> , 2015, 137, 16043-16048.	13.7	101
33	Understanding charge carrier dynamics in solar cell materials using time resolved terahertz spectroscopy. , 2015, , .		1
34	Detailed Characterization of a Nanosecond-Lived Excited State: X-ray and Theoretical Investigation of the Quintet State in Photoexcited $[\text{Fe}(\text{terpy})_2]^{2+}$. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5888-5902.	3.1	72
35	Intrinsic femtosecond charge generation dynamics in single crystal $\text{CH}_3\text{NH}_3\text{PbI}_3$. <i>Energy and Environmental Science</i> , 2015, 8, 3700-3707.	30.8	203
36	Effects of Immersion Solvent on Photovoltaic and Photophysical Properties of Porphyrin-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 18689-18696.	8.0	18

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37	Iron sensitizer converts light to electrons with 92% yield. <i>Nature Chemistry</i> , 2015, 7, 883-889.	13.6	193
38	A Heteroleptic Ferrous Complex with Mesoionic Bis(1,2,3-triazol-5-ylidene) Ligands: Taming the MLCT Excited State of Iron(II). <i>Chemistry - A European Journal</i> , 2015, 21, 3628-3639.	3.3	132
39	Photochemistry of Pheomelanin Building Blocks and Model Chromophores: Excited-State Intra- and Intermolecular Proton Transfer. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2094-2100.	4.6	17
40	Probing the Anisotropic Distortion of Photoexcited Spin Crossover Complexes with Picosecond X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 4536-4545.	3.1	44
41	Exceptional Excited-State Lifetime of an Iron(II)-Heterocyclic Carbene Complex Explained. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2066-2071.	4.6	125
42	Spin-state studies with XES and RIXS: From static to ultrafast. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 166-171.	1.7	87
43	Role of Adsorption Structures of Zn-Porphyrin on TiO ₂ in Dye-Sensitized Solar Cells Studied by Sum Frequency Generation Vibrational Spectroscopy and Ultrafast Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6066-6080.	3.1	137
44	Excited-State Proton-Transfer Processes of DHICA Resolved: From Sub-Picoseconds to Nanoseconds. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1383-1388.	4.6	37
45	Toward Highlighting the Ultrafast Electron Transfer Dynamics at the Optically Dark Sites of Photocatalysts. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1972-1976.	4.6	49
46	Towards longer-lived metal-to-ligand charge transfer states of iron(ii) complexes: an N-heterocyclic carbene approach. <i>Chemical Communications</i> , 2013, 49, 6412.	4.1	217
47	Electron and Hole Contributions to the Terahertz Photoconductivity of a Conjugated Polymer: Fullerene Blend Identified. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2442-2446.	4.6	32
48	Insights into the Charge Carrier Terahertz Mobility in Polyfluorenes from Large-Scale Atomistic Simulations and Time-Resolved Terahertz Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 19665-19672.	3.1	26
49	Charge carrier dynamics of quantum dot-sensitized ZnO nanowires probed by time resolved terahertz spectroscopy. , 2011, , .		0
50	Laser generated 300 keV electron beams from water. <i>Laser and Particle Beams</i> , 2011, 29, 415-424.	1.0	15
51	Far-infrared response of free charge carriers localized in semiconductor nanoparticles. <i>Physical Review B</i> , 2009, 79, .	3.2	114
52	Ultrafast conductivity in a low-band-gap polyphenylene and fullerene blend studied by terahertz spectroscopy. <i>Physical Review B</i> , 2009, 79, .	3.2	32
53	Biomimetic and Microbial Approaches to Solar Fuel Generation. <i>Accounts of Chemical Research</i> , 2009, 42, 1899-1909.	15.6	403
54	Femtobiology. <i>Annual Review of Physical Chemistry</i> , 2008, 59, 53-77.	10.8	139

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55	Ultrafast transport in dye sensitized ZnO nanotips investigated by terahertz spectroscopy. , 2008, , . Ultrafast dynamics of singlet-singlet and singlet-triplet exciton annihilation in poly(3-(2-methoxy-5-octylphenyl)thiophene).		0
56		3.2	57
57	films. Physical Review B, 2007, 75, . Ultrafast light-induced charge pair formation dynamics in poly[3-(2-methoxy-5-octylphenyl)thiophene]. Physical Review B, 2004, 70, .	3.2	32
58	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
59	Stepwise Charge Separation from a Ruthenium ^{II} -Tyrosine Complex to a Nanocrystalline TiO ₂ Film. Journal of Physical Chemistry B, 2004, 108, 12904-12910.	2.6	28
60	Photochemistry of Diiodomethane in Solution Studied by Femtosecond and Nanosecond Laser Photolysis. Formation and Dark Reactions of the CH ₂ I [•] I Isomer Photoproduct and Its Role in Cyclopropanation of Olefins. Journal of Physical Chemistry A, 2004, 108, 237-249.	2.5	57
61	Effect of a conjugated carbonyl group on the photophysical properties of carotenoids. Physical Chemistry Chemical Physics, 2004, 6, 3009-3016.	2.8	215
62	Dynamics of Excited States of the Carotenoid Peridinin in Polar Solvents: A Dependence on Excitation Wavelength, Viscosity, and Temperature. Journal of Physical Chemistry B, 2003, 107, 5339-5348.	2.6	138
63	Photodissociation Dynamics of Iodoform in Solution. Journal of Physical Chemistry A, 2003, 107, 211-217.	2.5	42
64	Photodissociation of CH ₂ ICH ₂ I, CF ₂ ICF ₂ I, and CF ₂ BrCF ₂ I in Solution. Journal of Physical Chemistry A, 2002, 106, 7090-7098.	2.5	23
65	Influence of the Protein Binding Site on the Excited States of Bacteriochlorophyll: A DFT Calculations of B800 in LH2. Journal of Physical Chemistry B, 2002, 106, 11606-11612.	2.6	39
66	Ultrafast Study of the Photodissociation of Bromiodomethane in Acetonitrile upon 266 nm Excitation. Journal of Physical Chemistry A, 2002, 106, 5999-6005.	2.5	39
67	LIQUID PHASE PHOTOCHEMISTRY OF THE DI- AND POLYHALOGENATED ALKANES CONTAINING IODINE: FEMTOSECOND TRANSIENT ABSORPTION STUDY OF THE PHOTODISSOCIATION AND IN-CAGE ISOMERIZATION. , 2002, , .		3
68	LIGHT DRIVEN MULTISTEP ELECTRON TRANSFER IN A TYROSINE-RUTHENIUM-COMPLEX ANCHORED TO TiO ₂ NANOPARTICLES. , 2002, , .		0
69	Intermolecular hydrogen bonding between carotenoid and bacteriochlorophyll in LH2. FEBS Letters, 2001, 496, 36-39.	2.8	17
70	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
71	Ultrafast Formation of Trinitromethanide (C(NO ₂) 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
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	Photosynthetic Light-Harvesting: Reconciling Dynamics and Structure of Purple Bacterial LH2 Reveals Function of Photosynthetic Unit. <i>Journal of Physical Chemistry B</i> , 1999, 103, 2327-2346.	2.6	768
74	Dynamics of Electron Injection and Recombination of Dye-Sensitized TiO ₂ Particles. <i>Journal of Physical Chemistry B</i> , 1998, 102, 10505-10514.	2.6	205
75	Charge Separation and Recombination in a Photoconducting Polymer with Electron Donor-Acceptor Complexes. <i>Journal of Physical Chemistry B</i> , 1998, 102, 7365-7370.	2.6	21
76	Resolving the Turnover of Temperature Dependence of the Reaction Rate in Barrierless Isomerization. <i>Journal of Physical Chemistry B</i> , 1998, 102, 7651-7658.	2.6	19
77	Pump-probe spectroscopy of dissipative energy transfer dynamics in photosynthetic antenna complexes: A density matrix approach. <i>Journal of Chemical Physics</i> , 1997, 107, 4154-4164.	3.0	174
78	Temperature Dependence of Excitation Transfer in LH2 of <i>Rhodobacter sphaeroides</i> . <i>Journal of Physical Chemistry B</i> , 1997, 101, 10560-10567.	2.6	156
79	Photosynthetic Light-Harvesting Pigment-Protein Complexes: Toward Understanding How and Why. <i>Accounts of Chemical Research</i> , 1996, 29, 381-389.	15.6	554
80	DYNAMICS OF EXCITATION ENERGY TRANSFER IN MOLECULAR AGGREGATES OF CHEMICAL AND BIOLOGICAL RELEVANCE. , 1996, , 199-208.		3
81	Exciton Delocalization Length in the B850 Antenna of <i>Rhodobacter sphaeroides</i> . <i>The Journal of Physical Chemistry</i> , 1996, 100, 10787-10792.	2.9	303
82	The tunneling contributions to optical coherence in femtosecond pump-probe spectroscopy of a three level system. <i>Journal of Chemical Physics</i> , 1996, 104, 5734-5744.	3.0	21
83	Coherent nuclear motions in light-harvesting pigments and dye molecules, probed by ultrafast spectroscopy. <i>Journal of Raman Spectroscopy</i> , 1995, 26, 513-522.	2.5	65