

# Sophie E Canton

## List of Publications by Year in descending order

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39  
papers

2,608  
citations

257429  
24  
h-index

302107  
39  
g-index

39  
all docs

39  
docs citations

39  
times ranked

3998  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Thermally Activated Exciton Dissociation and Recombination Control the Carrier Dynamics in Organometal Halide Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2189-2194.  | 4.6  | 465       |
| 2  | 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       |
| 3  | Exciton Binding Energy and the Nature of Emissive States in Organometal Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2969-2975.  | 4.6  | 211       |
| 4  | Ultrafast hot-hole injection modifies hot-electron dynamics in Au/p-GaN heterostructures. <i>Nature Materials</i> , 2020, 19, 1312-1318.  | 27.5 | 138       |
| 5  | 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       |
| 6  | A Heteroleptic Ferrous Complex with Mesoionic Bis(1,2,3,4-tetrahydropyridine) Ligands: Taming the MLCT Excited State of Iron(II). <i>Chemistry - A European Journal</i> , 2015, 21, 3628-3639.  | 3.3  | 132       |
| 7  | Photostability and Photodegradation Processes in Colloidal CsPbI <sub>3</sub> Perovskite Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 39222-39227.   | 8.0  | 116       |
| 8  | Guest-Host Interactions Investigated by Time-Resolved X-ray Spectroscopies and Scattering at MHz Rates: Solvation Dynamics and Photoinduced Spin Transition in Aqueous Fe(bipy) <sub>3</sub> <sup>2+</sup> . <i>Journal of Physical Chemistry A</i> , 2012, 116, 9878-9887. | 2.5  | 112       |
| 9  | Finding intersections between electronic excited state potential energy surfaces with simultaneous ultrafast X-ray scattering and spectroscopy. <i>Chemical Science</i> , 2019, 10, 5749-5760.  | 7.4  | 90        |
| 10 | 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        |
| 11 | Femtosecond X-Ray Scattering Study of Ultrafast Photoinduced Structural Dynamics in Solvated [Co(en) <sub>2</sub> ] <sup>2+</sup> Complex. <i>Journal of Physical Chemistry A</i> , 2018, 122, 4238-4249.   | 7.8  | 86        |
| 12 | 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        |
| 13 | Vibrational wavepacket dynamics in Fe carbene photosensitizer determined with femtosecond X-ray emission and scattering. <i>Nature Communications</i> , 2020, 11, 634.  | 12.8 | 75        |
| 14 | Solvent control of charge transfer excited state relaxation pathways in [Fe(2,2'-bipyridine)(CN) <sub>4</sub> ] <sup>2-</sup> . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 4238-4249.   | 2.8  | 52        |
| 15 | 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        |
| 16 | Direct Experimental Evidence for Photoinduced Strong-Coupling Polarons in Organolead Halide Perovskite Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4535-4539.  | 4.6  | 49        |
| 17 | Ultrafast charge transfer dynamics in 2D covalent organic frameworks/Re-complex hybrid photocatalyst. <i>Nature Communications</i> , 2022, 13, 845.   | 12.8 | 46        |
| 18 | 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        |

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|----|--|------|-----------|
| 19 | Highly Accurate Excited-State Structure of [Os(bpy) <sub>2</sub> dcby] <sup>2+</sup> Determined by X-ray Transient Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2014, 136, 8804-8809.                        | 13.7 | 44        |
| 20 | Hot Branching Dynamics in a Light-Harvesting Iron Carbene Complex Revealed by Ultrafast X-ray Emission Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 364-372.   | 13.8 | 41        |
| 21 | Asynchronous Photoexcited Electronic and Structural Relaxation in Lead-Free Perovskites. <i>Journal of the American Chemical Society</i> , 2019, 141, 13074-13080.   | 13.7 | 39        |
| 22 | Correlating structure and electronic band-edge properties in organolead halide perovskites nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 14933-14940.  | 2.8  | 32        |
| 23 | Dynamic Jahn-Teller Effect in the Metastable High-Spin State of Solvated [Fe(terpy) <sub>2</sub> ] <sup>2+</sup> . <i>Journal of Physical Chemistry C</i> , 2015, 119, 3312-3321.  | 3.1  | 29        |
| 24 | Free Carriers versus Self-Trapped Excitons at Different Facets of Ruddlesden-Popper Two-Dimensional Lead Halide Perovskite Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4965-4971.                            | 4.6  | 27        |
| 25 | Mapping the Ultrafast Changes of Continuous Shape Measures in Photoexcited Spin Crossover Complexes without Long-Range Order. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3322-3330.   | 3.1  | 23        |
| 26 | Modulating Charge-Carrier Dynamics in Mn-Doped All-Inorganic Halide Perovskite Quantum Dots through the Doping-Induced Deep Trap States. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3705-3711.                               | 4.6  | 22        |
| 27 | Probing the Impact of Solvation on Photoexcited Spin Crossover Complexes with High-Precision X-ray Transient Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2017, 139, 17518-17524.                            | 13.7 | 21        |
| 28 | Electronic Structure and Trap States of Two-Dimensional Ruddlesden-Popper Perovskites with the Relaxed Goldschmidt Tolerance Factor. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1402-1412.   | 4.3  | 19        |
| 29 | Single-component surface in binary self-assembled NaK nanoalloy clusters. <i>Physical Review B</i> , 2009, 80,   | 3.2  | 17        |
| 30 | Visualizing the coordination-spheres of photoexcited transition metal complexes with ultrafast hard X-rays. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9277-9284.  | 2.8  | 16        |
| 31 | Visualizing Light-Induced Microstrain and Phase Transition in Lead-Free Perovskites Using Time-Resolved X-Ray Diffraction. <i>Journal of the American Chemical Society</i> , 2022, 144, 5335-5341.   | 13.7 | 15        |
| 32 | Hot Branching Dynamics in a Light-Harvesting Iron Carbene Complex Revealed by Ultrafast X-ray Emission Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 372-380.  | 2.0  | 14        |
| 33 | Revealing Hot and Long-Lived Metastable Spin States in the Photoinduced Switching of Solvated Metallogrid Complexes with Femtosecond Optical and X-ray Spectroscopies. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2133-2141. | 4.6  | 11        |
| 34 | Optimizing the quasi-equilibrium state of hot carriers in all-inorganic lead halide perovskite nanocrystals through Mn doping: fundamental dynamics and device perspectives. <i>Chemical Science</i> , 2022, 13, 1734-1745.                | 7.4  | 11        |
| 35 | Watching the dynamics of electrons and atoms at work in solar energy conversion. <i>Faraday Discussions</i> , 2015, 185, 51-68.  | 3.2  | 10        |
| 36 | Exploring the light-induced dynamics in solvated metallogrid complexes with femtosecond pulses across the electromagnetic spectrum. <i>Journal of Chemical Physics</i> , 2020, 152, 214301.  | 3.0  | 10        |

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|----|--|-----|-----------|
| 37 | Metal-like heat conduction in laser-excited InSb probed by picosecond time-resolved x-ray diffraction. Physical Review B, 2008, 78, .  | 3.2 | 9         |
| 38 | Resolving the Ultrafast Changes of Chemically Inequivalent Metal-Ligand Bonds in Photoexcited Molecular Complexes with Transient X-ray Absorption Spectroscopy. ACS Omega, 2019, 4, 6375-6381. | 3.5 | 6         |
| 39 | The valence band of free K clusters studied by photoelectron and Auger spectroscopies. European Physical Journal D, 2008, 50, 165-169.   | 1.3 | 4         |