Stephen H Southworth

List of Publications by Year
in descending order

30 papers	1,830 citations	430874 18 h-index	477307 29 g-index
31 all docs	31 docs citations	31 times ranked	2739 citing authors

#	Article	IF	Citations
1	Femtosecond electronic response of atoms to ultra-intense X-rays. Nature, 2010, 466, 56-61.	27.8	711
2	Observation of the fastest chemical processes in the radiolysis of water. Science, 2020, 367, 179-182.	12.6	149
3	Unveiling and Driving Hidden Resonances with High-Fluence, High-Intensity X-Ray Pulses. Physical Review Letters, 2011, 107, 233001.	7.8	131
4	Guestâ€"Host Interactions Investigated by Time-Resolved X-ray Spectroscopies and Scattering at MHz Rates: Solvation Dynamics and Photoinduced Spin Transition in Aqueous Fe(bipy)₃²⁺. Journal of Physical Chemistry A, 2012, 116, 9878-9887.	2.5	112
5	Development of high-repetition-rate laser pump/x-ray probe methodologies for synchrotron facilities. Review of Scientific Instruments, 2011, 82, 073110.	1.3	84
6	Tracking the Structural and Electronic Configurations of a Cobalt Proton Reduction Catalyst in Water. Journal of the American Chemical Society, 2016, 138, 10586-10596.	13.7	77
7	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
8	X-Ray Microprobe of Orbital Alignment in Strong-Field Ionized Atoms. Physical Review Letters, 2006, 97, 083601.	7.8	71
9	Hetero-site-specific X-ray pump-probe spectroscopy for femtosecond intramolecular dynamics. Nature Communications, 2016, 7, 11652.	12.8	70
10	Direct observation of coherent femtosecond solvent reorganization coupled to intramolecular electron transfer. Nature Chemistry, 2021, 13, 343-349.	13.6	59
11	Comprehensive Experimental and Computational Spectroscopic Study of Hexacyanoferrate Complexes in Water: From Infrared to X-ray Wavelengths. Journal of Physical Chemistry B, 2018, 122, 5075-5086.	2.6	40
12	Chemical Understanding of the Limited Site-Specificity in Molecular Inner-Shell Photofragmentation. Journal of Physical Chemistry Letters, 2018, 9, 1156-1163.	4.6	31
13	Using Ultrafast X-ray Spectroscopy To Address Questions in Ligand-Field Theory: The Excited State Spin and Structure of [Fe(dcpp)₂]²⁺. Inorganic Chemistry, 2019, 58, 9341-9350.	4.0	29
14	Resonant Inelastic X-Ray Scattering Reveals Hidden Local Transitions of the Aqueous OH Radical. Physical Review Letters, 2020, 124, 236001.	7.8	28
15	Probing Transient Valence Orbital Changes with Picosecond Valence-to-Core X-ray Emission Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 2620-2626.	3.1	27
16	The role of transient resonances for ultra-fast imaging of single sucrose nanoclusters. Nature Communications, 2020, 11, 167.	12.8	27
17	Mechanistic Evaluation of a Nickel Proton Reduction Catalyst Using Time-Resolved X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 20049-20057.	3.1	21
18	Three-dimensional optical trapping and orientation of microparticles for coherent X-ray diffraction imaging. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4018-4024.	7.1	18

#	Article	IF	Citations
19	Inner-shell photoionization and core-hole decay of Xe and XeF2. Journal of Chemical Physics, 2015, 142, 224302.	3.0	15
20	Observing pre-edge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>K</mml:mi></mml:math>-shell resonances in Kr, Xe, and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>XeF</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review A, 2019, 100, .	2.5	11
21	Femtosecond X-ray Spectroscopy Directly Quantifies Transient Excited-State Mixed Valency. Journal of Physical Chemistry Letters, 2022, 13, 378-386.	4.6	9
22	From synchrotrons for XFELs: the soft x-ray near-edge spectrum of the ESCA molecule. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 244011.	1.5	7
23	Micro-focused MHz pink beam for time-resolved X-ray emission spectroscopy. Journal of Synchrotron Radiation, 2019, 26, 1956-1966.	2.4	7
24	Pulse Energy and Pulse Duration Effects in the Ionization and Fragmentation of Iodomethane by Ultraintense Hard X Rays. Physical Review Letters, 2021, 127, 093202.	7.8	6
25	Siteâ€Selective Realâ€Time Observation of Bimolecular Electron Transfer in a Photocatalytic System Using Lâ€Edge Xâ€Ray Absorption Spectroscopy**. ChemPhysChem, 2021, 22, 693-700.	2.1	5
26	High intensity x-ray interaction with a model bio-molecule system: double-core-hole states and fragmentation of formamide. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 244005.	1.5	5
27	Resonant x-ray absorption of strong-field-ionized CF₃Br. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 244009.	1.5	4
28	Benchmark Relativistic Delta-Coupled-Cluster Calculations of K-Edge Core-Ionization Energies for Third-Row Elements. Physical Chemistry Chemical Physics, 0, , .	2.8	2
29	Photon-In/Photon-Out X-ray Free-Electron Laser Studies of Radiolysis. Applied Sciences (Switzerland), 2021, 11, 701.	2.5	1
30	Perspectives on UV and x-ray photoelectron spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 043002.	2.1	0