# Sean T Roberts

List of Publications by Year
in descending order

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|---|---|---|---|
| 52 papers | 3,718 citations | 201674 27 h-index | 168389 53 g-index |
| 56 all docs | 56 docs citations | 56 times ranked | 3705 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hydrogen bonds in liquid water are broken only fleetingly. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13019-13022. | 7.1 | 465 |
| 2 | Local hydrogen bonding dynamics and collective reorganization in water: Ultrafast infrared spectroscopy of HOD/D2O. Journal of Chemical Physics, 2005, 122, 054506. | 3.0 | 295 |
| 3 | Efficient Singlet Fission Discovered in a Disordered Acene Film. Journal of the American Chemical Society, 2012, 134, 6388-6400. | 13.7 | 275 |
| 4 | Characterization of spectral diffusion from two-dimensional line shapes. Journal of Chemical Physics, 2006, 125, 084502. | 3.0 | 270 |
| 5 | Multidimensional infrared spectroscopy of water. I. Vibrational dynamics in two-dimensional IR line shapes. Journal of Chemical Physics, 2006, 125, 194521. | 3.0 | 180 |
| 6 | Structural Rearrangements in Water Viewed Through Two-Dimensional Infrared Spectroscopy. Accounts of Chemical Research, 2009, 42, 1239-1249. | 15.6 | 177 |
| 7 | Multidimensional infrared spectroscopy of water. II. Hydrogen bond switching dynamics. Journal of Chemical Physics, 2006, 125, 194522. | 3.0 | 175 |
| 8 | Singlet Fission Involves an Interplay between Energetic Driving Force and Electronic Coupling in Perylenediimide Films. Journal of the American Chemical Society, 2018, 140, 814-826. | 13.7 | 167 |
| 9 | Are water simulation models consistent with steady-state and ultrafast vibrational spectroscopy experiments?. Chemical Physics, 2007, 341, 143-157. | 1.9 | 150 |
| 10 | Singlet and Triplet Excitation Management in a Bichromophoric Near-Infrared-Phosphorescent BODIPY-Benzoporphyrin Platinum Complex. Journal of the American Chemical Society, 2011, 133, 88-96. | 13.7 | 147 |
| 11 | Symmetry-breaking intramolecular charge transfer in the excited state of meso-linked BODIPY dyads. Chemical Communications, 2012, 48, 284-286. | 4.1 | 137 |
| 12 | Observation of a Zundel-like transition state during proton transfer in aqueous hydroxide solutions. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15154-15159. | 7.1 | 111 |
| 13 | Slow Singlet Fission Observed in a Polycrystalline Perylenediimide Thin Film. Journal of Physical Chemistry Letters, 2016, 7, 4922-4928. | 4.6 | 95 |
| 14 | Hydrogen Bond Rearrangements in Water Probed with Temperature-Dependent 2D IR. Journal of Physical Chemistry Letters, 2010, 1, 1068-1072. | 4.6 | 89 |
| 15 | Surface States Mediate Triplet Energy Transfer in Nanocrystalâ€“Acene Composite Systems. Journal of the American Chemical Society, 2018, 140, 7543-7553. | 13.7 | 88 |
| 16 | Achieving spin-triplet exciton transfer between silicon and molecular acceptors for photon upconversion. Nature Chemistry, 2020, 12, 137-144. | 13.6 | 85 |
| 17 | Ultrafast 2D IR anisotropy of water reveals reorientation during hydrogen-bond switching. Journal of Chemical Physics, 2011, 135, 054509. | 3.0 | 72 |
| 18 | Variation of the transition dipole moment across the OH stretching band of water. Chemical Physics, 2007, 341, 218-229. | 1.9 | 70 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Fused Porphyrinâ€“Single-Walled Carbon Nanotube Hybrids: Efficient Formation and Photophysical Characterization. ACS Nano, 2013, 7, 3466-3475. | 14.6 | 67 |
| 20 | Aqueous Colloidal Acene Nanoparticles: A New Platform for Studying Singlet Fission. Journal of Physical Chemistry B, 2013, 117, 15519-15526. | 2.6 | 47 |
| 21 | Proton Transfer in Concentrated Aqueous Hydroxide Visualized Using Ultrafast Infrared Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 3957-3972. | 2.5 | 45 |
| 22 | Catalyst Halogenation Enables Rapid and Efficient Polymerizations with Visible to Far-Red Light. Journal of the American Chemical Society, 2020, 142, 14733-14742. | 13.7 | 44 |
| 23 | Annealing-Induced Changes in the Molecular Orientation of Poly-3-hexylthiophene at Buried Interfaces. Journal of Physical Chemistry C, 2013, 117, 15213-15220. | 3.1 | 43 |
| 24 | Observation of Triplet Exciton Formation in a Platinum-Sensitized Organic Photovoltaic Device. Journal of Physical Chemistry Letters, 2011, 2, 48-54. | 4.6 | 41 |
| 25 | Ultrafast Nâ‹¯H Vibrational Dynamics of Cyclic Doubly Hydrogen-Bonded Homo- and Heterodimers. Journal of Physical Chemistry B, 2008, 112, 13167-13171. | 2.6 | 36 |
| 26 | Helical Rod-like Phenylene Cages via Ruthenium Catalyzed Diol-Diene Benzannulation: A Cord of Three Strands. Journal of the American Chemical Society, 2018, 140, 2455-2459. | 13.7 | 30 |
| 27 | Exciton-Delocalizing Ligands Can Speed Up Energy Migration in Nanocrystal Solids. Nano Letters, 2018, 18, 3259-3270. | 9.1 | 29 |
| 28 | Using Heterodyne-Detected Electronic Sum Frequency Generation To Probe the Electronic Structure of Buried Interfaces. Journal of Physical Chemistry C, 2017, 121, 18653-18664. | 3.1 | 24 |
| 29 | A fast-scanning Fourier transform 2D IR interferometer. Optics Communications, 2011, 284, 1062-1066. | 2.1 | 21 |
| 30 | Can Exciton-Delocalizing Ligands Facilitate Hot Hole Transfer from Semiconductor Nanocrystals?. Journal of Physical Chemistry C, 2016, 120, 28224-28234. | 3.1 | 20 |
| 31 | Extracting the Density of States of Copper Phthalocyanine at the SiO<sub>2</sub> Interface with Electronic Sum Frequency Generation. Journal of Physical Chemistry Letters, 2016, 7, 1060-1066. | 4.6 | 20 |
| 32 | Charge carrier concentration dependence of ultrafast plasmonic relaxation in conducting metal oxide nanocrystals. Journal of Materials Chemistry C, 2017, 5, 5757-5763. | 5.5 | 20 |
| 33 | Bidirectional triplet exciton transfer between silicon nanocrystals and perylene. Chemical Science, 2021, 12, 6737-6746. | 7.4 | 19 |
| 34 | Controlling Symmetry Breaking Charge Transfer in BODIPY Pairs. Accounts of Chemical Research, 2022, 55, 1561-1572. | 15.6 | 19 |
| 35 | Using Electronic Sum-Frequency Generation to Analyze the Interfacial Structure of Singlet Fission-Capable Perylenediimide Thin Films. Journal of Physical Chemistry C, 2020, 124, 11401-11413. | 3.1 | 17 |
| 36 | Modulation of the Visible Absorption and Reflection Profiles of ITO Nanocrystal Thin Films by Plasmon Excitation. ACS Photonics, 2020, 7, 1188-1196. | 6.6 | 16 |

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|---|---|---|---|
| 37 | Alternating oligo(o,p-phenylenes) via ruthenium catalyzed diolâ€“diene benzannulation: orthogonality to cross-coupling enables de novo nanographene and PAH construction. Chemical Science, 2018, 9, 7866-7873. | 7.4 | 14 |
| 38 | Local and Collective Reaction Coordinates in the Transport of the Aqueous Hydroxide Ion. Journal of Physical Chemistry B, 2014, 118, 8062-8069. | 2.6 | 12 |
| 39 | Moisture-Driven Formation and Growth of Quasi-2-D Organolead Halide Perovskite Crystallites. ACS Applied Energy Materials, 2020, 3, 6280-6290. | 5.1 | 11 |
| 40 | Singlet to triplet and back again. Nature Chemistry, 2015, 7, 764-765. | 13.6 | 9 |
| 41 | Sensitivity of sum frequency generation experimental conditions to thin film interference effects. Journal of Chemical Physics, 2021, 154, 114704. | 3.0 | 8 |
| 42 | Ligand-Enhanced Energy Transport in Nanocrystal Solids Viewed with Two-Dimensional Electronic Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 5602-5608. | 4.6 | 7 |
| 43 | CdSe nanocrystal sensitized photon upconverting film. RSC Advances, 2021, 11, 31042-31046. | 3.6 | 7 |
| 44 | Photon quenching in InGaN quantum well light emitting devices. Applied Physics Letters, 2013, 103, 041123. | 3.3 | 6 |
| 45 | Quantifying Charge Recombination in Solar Cells Based on Donorâ€“Acceptor P3HT Analogues. Journal of Physical Chemistry C, 2014, 118, 6650-6660. | 3.1 | 6 |
| 46 | Defects Cause Subgap Luminescence from a Crystalline Tetracene Derivative. Journal of Physical Chemistry Letters, 2017, 8, 5993-6001. | 4.6 | 6 |
| 47 | Triple Helical Ir(ppy) 3 Phenylene Cage Prepared by Diolâ€Mediated Benzannulation: Synthesis, Resolution, Absolute Stereochemistry and Photophysical Properties. Chemistry - A European Journal, 2019, 25, 8719-8724. | 3.3 | 6 |
| 48 | Benzannulation through Ruthenium(0)â€Catalyzed Transfer Hydrogenative Cycloaddition: Precision Synthesis and Photophysical Characterization of Soluble Diindenoperylenes. Chemistry - A European Journal, 2020, 26, 7504-7510. | 3.3 | 4 |
| 49 | Using Spectator Ligands to Enhance Nanocrystal-to-Molecule Electron Transfer. Journal of Physical Chemistry Letters, 2022, , 1416-1423. | 4.6 | 4 |
| 50 | Low temperature radical initiated hydrosilylation of silicon quantum dots. Faraday Discussions, 2020, 222, 190-200. | 3.2 | 3 |
| 51 | The Length of Molecular Tethers Can Be Used to Control the Structure and Electronic Properties of Stapled Supramolecular Polymers. Chemistry of Materials, 2022, 34, 6518-6528. | 6.7 | 3 |
| 52 | The Dynamics of Aqueous Hydroxide Ion Transport Probed via Ultrafast Vibrational Echo Experiments. Springer Series in Chemical Physics, 2009, , 481-483. | 0.2 | 1 |