

Stanford



Tracy Schloemer

Postdoctoral Scholar, Electrical Engineering

Bio

BIO

Tracy H. Schloemer earned her B.S. in chemistry and M.A. in educational studies from the University of Michigan. She taught high school chemistry in Denver, Colorado as a Knowles Teaching Initiative fellow and served as a lead contributor to ChemEdX. She earned her Ph.D. in applied chemistry from the Colorado School of Mines in 2019 where she focused on organic semiconductor design for improved operational durability of perovskite solar cells under professor Alan Sellinger and in collaboration with the National Renewable Energy Lab. Her current research focuses on the control and application of excitons in the Congreve Lab. Her interests outside the lab include hiking and cheering on University of Michigan “sportsball”.

HONORS AND AWARDS

- Arnold O. Beckman Postdoctoral Fellow, Arnold and Mabel Beckman Foundation

STANFORD ADVISORS

- Dan Congreve, Postdoctoral Faculty Sponsor

LINKS

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Publications

PUBLICATIONS

- Spatially Controlled Uv Light Generation at Depth Using Upconversion Micelles.** *Advanced materials (Deerfield Beach, Fla.)* Zhou, Q., Wirtz, B. M., Schloemer, T. H., Burroughs, M. C., Hu, M., Narayanan, P., Lyu, J., Gallegos, A. O., Layton, C., Mai, D. J., Congreve, D. N. 2023; e2301563
- Water additives improve the efficiency of violet perovskite light-emitting diodes MATTER** Hu, M., Fernandez, S., Zhou, Q., Narayanan, P., Saini, B., Schloemer, T. H., Lyu, J., Gallegos, A. O., Ahmed, G. H., Congreve, D. N. 2023; 6 (7): 2356-2367
- Gelation Dynamics during Photo-Cross-Linking of Polymer Nanocomposite Hydrogels.** *ACS polymers Au* Burroughs, M. C., Schloemer, T. H., Congreve, D. N., Mai, D. J. 2023; 3 (2): 217-227
- Controlling the durability and optical properties of triplet-triplet annihilation upconversion nanocapsules.** *Nanoscale* Schloemer, T. H., Sanders, S. N., Narayanan, P., Zhou, Q., Hu, M., Congreve, D. N. 2023

- **Nanoengineering Triplet-Triplet Annihilation Upconversion: From Materials to Real-World Applications.** *ACS nano*
Schloemer, T., Narayanan, P., Zhou, Q., Belliveau, E., Seitz, M., Congreve, D. N.
2023
- **Gelation Dynamics during Photo-Cross-Linking of Polymer Nanocomposite Hydrogels** *ACS POLYMERS AU*
Burroughs, M. C., Schloemer, T. H., Congreve, D. N., Mai, D. J.
2022
- **Triplet Fusion Upconversion Nanocapsule Synthesis.** *Journal of visualized experiments : JoVE*
Schloemer, T. H., Sanders, S. N., Zhou, Q., Narayanan, P., Hu, M., Gangishetty, M. K., Anderson, D., Seitz, M., Gallegos, A. O., Stokes, R. C., Congreve, D. N.
2022
- **Triplet fusion upconversion nanocapsules for volumetric 3D printing.** *Nature*
Sanders, S. N., Schloemer, T. H., Gangishetty, M. K., Anderson, D., Seitz, M., Gallegos, A. O., Stokes, R. C., Congreve, D. N.
2022; 604 (7906): 474-478
- **Managing big data** *NATURE ENERGY*
Schloemer, T. H.
2022
- **Reflections on hosting summer undergraduate researchers in the midst of a pandemic.** *Matter*
Gallegos, A. O., Ahmed, G. H., Schloemer, T. H., Congreve, D. N.
2021; 4 (10): 3074-3077
- **The Molybdenum Oxide Interface Limits the High-Temperature Operational Stability of Unencapsulated Perovskite Solar Cells** *ACS ENERGY LETTERS*
Schloemer, T. H., Raiford, J. A., Gehan, T. S., Moot, T., Nanayakkara, S., Harvey, S. P., Bramante, R. C., Dunfield, S., Louks, A. E., Maughan, A. E., Bliss, L., McGehee, M. D., van Hest, et al
2020; 5 (7): 2349–60
- **CsI-Antisolvent Adduct Formation in All-Inorganic Metal Halide Perovskites** *ADVANCED ENERGY MATERIALS*
Moot, T., Marshall, A. R., Wheeler, L. M., Haberreutinger, S. N., Schloemer, T. H., Boyd, C. C., Dikova, D. R., Pach, G. F., Hazarika, A., McGehee, M. D., Snaith, H. J., Luther, J. M.
2020
- **Doping strategies for small molecule organic hole-transport materials: impacts on perovskite solar cell performance and stability.** *Chemical science*
Schloemer, T. H., Christians, J. A., Luther, J. M., Sellinger, A.
2019; 10 (7): 1904-1935