Stanford

Daniela Marin

- Ph.D. Student in Chemical Engineering, admitted Autumn 2020
- Other Tech - Graduate, Stanford Nano Shared Facilities Service Center

Bio

BIO

Daniela Marin is a first-year graduate student at Stanford University. She previously worked as a post-undergraduate researcher at the National Renewable Energy Laboratory and worked toward advancing the commercialization of bio-derived materials and methods of plastics recycling. Daniela holds a B.S. in Chemical Engineering and a B.A. in Physics through a dual-degree program with Columbia University and William Jewell College. Her education is combined with undergraduate research that focused on mitigating the effects of viscous fingering using step-growth polymerization to stabilize the instability. Her transition to Columbia introduced her to the field of atmospheric aerosols where she worked with Professor V. Faye McNeill's group to investigate a photoinduced particle growth process and its role in secondary organic aerosol formation. She is enthusiastic about using her technical abilities and interest in the environment to contribute to Stanford Chemical Engineering's mission of developing technologies that will improve and maintain environmental health.

EDUCATION AND CERTIFICATIONS

- B.A., William Jewell College , Physics (2019)
- B.S., Columbia University , Chemical Engineering (2019)

Publications

PUBLICATIONS

- **Understanding the Effects of Anode Catalyst Conductivity and Loading on Catalyst Layer Utilization and Performance for Anion Exchange Membrane Water Electrolysis.** *ACS catalysis*
  Kreider, M. E., Yu, H., Osmieri, L., Parimuha, M. R., Reeves, K. S., Marin, D. H., Hannagan, R. T., Volk, E. K., Jaramillo, T. F., Young, J. L., Zelenay, P., Alia, S. M.
  2024; 14 (14): 10806-10819

- **Understanding the Effects of Anode Catalyst Conductivity and Loading on Catalyst Layer Utilization and Performance for Anion Exchange Membrane Water Electrolysis** *ACS CATALYSIS*
  Kreider, M. E., Yu, H., Osmieri, L., Parimuha, M. R., Reeves, K. S., Marin, D. H., Hannagan, R. T., Volk, E. K., Jaramillo, T. F., Young, J. L., Zelenay, P., Alia, S. M.
  2024

- **Protocol for assembling and operating bipolar membrane water electrolyzers.** *STAR protocols*
  Rios Amador, I., Hannagan, R. T., Marin, D. H., Perryman, J. T., Rémy, C., Hubert, M. A., Lindquist, G. A., Chen, L., Stevens, M. B., Boettcher, S. W., Nielander, A. C., Jaramillo, T. F.
  2023; 4 (4): 102606

- **PolyID: Artificial Intelligence for Discovering Performance-Advantaged and Sustainable Polymers** *MACROMOLECULES*
  Wilson, A., St John, P. C., Marin, D. H., Hoyt, C. B., Rognerud, E. G., Nimlos, M. R., Cywar, R. M., Rorrer, N. A., Shebek, K. M., Broadbelt, L. J., Beckham, G. T., Crowley, M. F.

2023

- **Hydrogen production with seawater-resilient bipolar membrane electrolyzers** *JOULE*
  Marin, D. H., Perryman, J. T., Hubert, M. A., Lindquist, G. A., Chen, L., Aleman, A. M., Kamat, G. A., Niemann, V. A., Stevens, M., Regmi, Y. N., Boettcher, S. W., Nielander, A. C., Jaramillo, et al
  2023; 7 (4): 765-781

- **Impact of Environmental Conditions on Secondary Organic Aerosol Production from Photosensitized Humic Acid** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Fankhauser, A. M., Bourque, M., Almazan, J., Marin, D., Fernandez, L., Hutheesing, R., Ferdousi, N., Tsui, W. G., McNeill, V.
  2020; 54 (9): 5385–90

- **Stabilization of miscible viscous fingering by a step growth polymerization reaction** *EXPERIMENTS IN FLUIDS*
  Stewart, S., Marin, D., Tullier, M., Pojman, J., Meiburg, E., Bunton, P.
  2018; 59 (7)

- **Design and validation study of a laboratory scale chemical reactor for non-invasive imaging of macro objects in situ** *CHEMICAL ENGINEERING JOURNAL*
  Marin, D., Fairlie, M., Bunton, P., Nwosu, C., Parker, J., Franklin, F., Novakovic, K.
  2017; 327: 889–97

- **Schlieren imaging of viscous fingering in a horizontal Hele-Shaw cell** *EXPERIMENTS IN FLUIDS*
  Bunton, P., Marin, D., Stewart, S., Meiburg, E., De Wit, A.
  2016; 57 (2)