

Stanford



Elizabeth Corson

Postdoctoral Scholar, Chemical Engineering

 Curriculum Vitae available Online

Bio

BIO

Dr. Elizabeth Corson is a TomKat Center Postdoctoral Fellow in Sustainable Energy researching electrochemical nitrate reduction. She was a NSF Graduate Research Fellow at the University of California, Berkeley where she completed her Ph.D. in Chemical Engineering with Prof. Bryan McCloskey. She conducted her dissertation research on plasmon-enhanced electrochemical carbon dioxide reduction at the Joint Center for Artificial Photosynthesis (JCAP) at Lawrence Berkeley National Lab. Originally from Iowa, Elizabeth received her B.S. in Chemical Engineering from the Illinois Institute of Technology in Chicago.

STANFORD ADVISORS

- William Tarpeh, Postdoctoral Faculty Sponsor
- William Tarpeh, Postdoctoral Research Mentor

LINKS

- Google Scholar - Elizabeth R. Corson: <https://scholar.google.com/citations?user=xKlig48AAAAJ&hl=en&inst=5746887945952177237&oi=ao>

Publications

PUBLICATIONS

- **Catalytic Performance and Near-Surface X-ray Characterization of Titanium Hydride Electrodes for the Electrochemical Nitrate Reduction Reaction.** *Journal of the American Chemical Society*
Liu, M. J., Guo, J., Hoffman, A. S., Stenlid, J. H., Tang, M. T., Corson, E. R., Stone, K. H., Abild-Pedersen, F., Bare, S. R., Tarpeh, W. A.
2022
- **Effect of pressure and temperature on carbon dioxide reduction at a plasmonically active silver cathode** *ELECTROCHIMICA ACTA*
Corson, E. R., Creel, E. B., Kostecki, R., Urban, J. J., McCloskey, B. D.
2021; 374
- **Reduction of carbon dioxide at a plasmonically active copper-silver cathode** *CHEMICAL COMMUNICATIONS*
Corson, E. R., Subramani, A., Cooper, J. K., Kostecki, R., Urban, J. J., McCloskey, B. D.
2020; 56 (69): 9970–73
- **In Situ ATR-SEIRAS of Carbon Dioxide Reduction at a Plasmonic Silver Cathode** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Corson, E. R., Kas, R., Kostecki, R., Urban, J. J., Smith, W. A., McCloskey, B. D., Kortlever, R.
2020; 142 (27): 11750–62
- **Important Considerations in Plasmon-Enhanced Electrochemical Conversion at Voltage-Biased Electrodes** *ISCIENCE*
Corson, E. R., Creel, E. B., Kostecki, R., McCloskey, B. D., Urban, J. J.
2020; 23 (3): 100911
- **Directing Selectivity of Electrochemical Carbon Dioxide Reduction Using Plasmonics** *ACS ENERGY LETTERS*

Creel, E. B., Corson, E. R., Eichhorn, J., Kostecki, R., Urban, J. J., McCloskey, B. D.

2019; 4 (5): 1098–1105

● **Surface-Plasmon-Assisted Photoelectrochemical Reduction of CO₂ and NO₃- on Nanostructured Silver Electrodes** *ADVANCED ENERGY MATERIALS*

Kim, Y., Creel, E. B., Corson, E. R., McCloskey, B. D., Urban, J. J., Kostecki, R.

2018; 8 (22)

● **A temperature-controlled photoelectrochemical cell for quantitative product analysis** *REVIEW OF SCIENTIFIC INSTRUMENTS*

Corson, E. R., Creel, E. B., Kim, Y., Urban, J. J., Kostecki, R., McCloskey, B. D.

2018; 89 (5): 055112

● **CO₂ capture by sub-ambient membrane operation**

Hasse, D., Kulkarni, S., Sanders, E., Corson, E., Tranier, J., Dixon, T., Yamaji, K.

ELSEVIER SCIENCE BV.2013: 993–1003