

Jeffrey Babicz

Research Assoc-Experimental, SLAC National Accelerator Laboratory

Publications

PUBLICATIONS

- **Mechanisms of O₂ Activation by Mononuclear Non-Heme Iron Enzymes.** *Biochemistry*
Solomon, E. I., DeWeese, D. E., Babicz, J. T.
2021
- **Direct coordination of pterin to FeII enables neurotransmitter biosynthesis in the pterin-dependent hydroxylases.** *Proceedings of the National Academy of Sciences of the United States of America*
Iyer, S. R., Tidemand, K. D., Babicz, J. T., Jacobs, A. B., Gee, L. B., Haahr, L. T., Yoda, Y., Kurokuzu, M., Kitao, S., Saito, M., Seto, M., Christensen, H. E., Peters, et al
2021; 118 (15)
- **Nuclear Resonance Vibrational Spectroscopic Definition of the Fe(IV)O Intermediate Q in Methane Monooxygenase and Its Reactivity.** *Journal of the American Chemical Society*
Jacobs, A. B., Banerjee, R., Deweese, D. E., Braun, A., Babicz, J. T., Gee, L. B., Sutherlin, K. D., Böttger, L. H., Yoda, Y., Saito, M., Kitao, S., Kobayashi, Y., Seto, et al
2021
- **Valence-Dependent Electrical Conductivity in a 3D Tetrahydroxyquinone-Based Metal-Organic Framework.** *Journal of the American Chemical Society*
Chen, G., Gee, L. B., Xu, W., Zhu, Y., Lezama-Pacheco, J. S., Huang, Z., Li, Z., Babicz, J. T., Choudhury, S., Chang, T., Reed, E., Solomon, E. I., Bao, et al
2020
- **Evaluation of a concerted vs. sequential oxygen activation mechanism in #-ketoglutarate-dependent nonheme ferrous enzymes.** *Proceedings of the National Academy of Sciences of the United States of America*
Goudarzi, S. n., Iyer, S. R., Babicz, J. T., Yan, J. J., Peters, G. H., Christensen, H. E., Hedman, B. n., Hodgson, K. O., Solomon, E. I.
2020
- **Mechanism of selective benzene hydroxylation catalyzed by iron-containing zeolites** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Snyder, B. R., Bols, M. L., Rhoda, H. M., Vanelderen, P., Bottger, L. H., Braun, A., Yan, J. J., Hadt, R. G., Babicz, J. T., Hu, M. Y., Zhao, J., Alp, E., Hedman, et al
2018; 115 (48): 12124–29
- **Mechanism of selective benzene hydroxylation catalyzed by iron-containing zeolites.** *Proceedings of the National Academy of Sciences of the United States of America*
Snyder, B. E., Bols, M. L., Rhoda, H. M., Vanelderen, P., Bottger, L. H., Braun, A., Yan, J. J., Hadt, R. G., Babicz, J. T., Hu, M. Y., Zhao, J., Alp, E. E., Hedman, et al
2018
- **Spectroscopic and Electronic Structure Study of ETHE1: Elucidating the Factors Influencing Sulfur Oxidation and Oxygenation in Mononuclear Nonheme Iron Enzymes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Goudarzi, S., Babicz, J. T., Kabil, O., Banerjee, R., Solomon, E. I.
2018; 140 (44): 14887–902
- **Spectroscopic and Electronic Structure Study of ETHE1: Elucidating the Factors Influencing Sulfur Oxidation and Oxygenation in Mononuclear Nonheme Iron Enzymes.** *Journal of the American Chemical Society*
Goudarzi, S., Babicz, J. T., Kabil, O., Banerjee, R., Solomon, E. I.
2018

- **Kinetic and spectroscopic investigation of oxygen activation at a single iron center via Gibbs free energy coupling: Generation of an active alkane oxidation catalyst**

Cunningham, L., Babicz, J., Tucker, W., McCracken, J., Rybak-Akimova, E., Solomon, E., Caradonna, J.
AMER CHEMICAL SOC.2018

- **Correlating the structures and activities of the resting oxidized and native intermediate states of a small laccase by paramagnetic NMR** *JOURNAL OF INORGANIC BIOCHEMISTRY*

Machczynski, M. C., Babicz, J. T.
2016; 159: 62-69