



## Suman Bhasker Ranganath

Postdoctoral Scholar, Photon Science, SLAC

### Bio

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#### STANFORD ADVISORS

- Thomas Jaramillo, Postdoctoral Faculty Sponsor
- Johannes Voss, Postdoctoral Research Mentor

#### LINKS

- Google Scholar: <https://scholar.google.com/citations?user=obpriwAAAAJ&hl=en>
- LinkedIn: <https://www.linkedin.com/in/suman-bhasker/>

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Development of machine-learning models from high-throughput catalysis simulations.

### Publications

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#### PUBLICATIONS

- **Optimizing Prediction of Chemical Bonds in Interfacial Dynamics through Local Uncertainty Estimates with Neural Network Ensembles.** *Journal of chemical information and modeling*  
Bhasker-Ranganath, S., Balzaretti, F., Voss, J.  
2026
- **A research database for experimental electrocatalysis: Advancing data sharing and reusability.** *The Journal of chemical physics*  
Mahajan, R., Aleman, A. M., Crago, C. F., Bhasker-Ranganath, S., Kreider, M. E., Zamora Zeledon, J. A., Schröder, J., Kamat, G. A., Hubert, M. A., Nielander, A. C., Jaramillo, T. F., Stevens, M. B., Voss, et al  
2025; 163 (12)
- **Hydrolysis of Acetamide on Low-Index CeO<sub>2</sub> Surfaces: Ceria as a Deamidation and General De-esterification Catalyst** *ACS CATALYSIS*  
Bhasker-Ranganath, S., Xu, Y.  
2022; 12 (16): 10222-10234
- **Elucidating the Mechanism of Ambient-Temperature Aldol Condensation of Acetaldehyde on Ceria** *ACS CATALYSIS*  
Bhasker-Ranganath, S., Rahman, M., Zhao, C., Calaza, F., Wu, Z., Xu, Y.  
2021; 11 (14): 8621-8634
- **Theoretical analysis of the adsorption of phosphoric acid and model phosphate monoesters on CeO<sub>2</sub> (111)** *SURFACE SCIENCE*  
Bhasker-Ranganath, S., Zhao, C., Xu, Y.  
2021; 705

- **Adsorption structure of adenine on cerium oxide** *APPLIED SURFACE SCIENCE*  
Bercha, S., Bhasker-Ranganath, S., Zheng, X., Beranova, K., Vorokhta, M., Acres, R. G., Skala, T., Matolin, V., Prince, K. C., Xu, Y., Tsud, N.  
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- **Computational insights into the molecular mechanisms for chromium passivation of stainless-steel surfaces** *MATERIALS TODAY CHEMISTRY*  
Bhasker-Ranganath, S., Wick, C. D., Ramachandran, B. R.  
2020; 17
  
- **Role of Metal-Lithium Oxide Interfaces in the Extra Lithium Capacity of Metal Oxide Lithium-Ion Battery Anode Materials** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Ranganath, S., Hassan, A. S., Ramachandran, B., Wick, C. D.  
2016; 163 (10): A2172-A2178