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2012, Ph.D., New Mexico State University

2012-2014, Post-doc University of Pittsburgh, Pittsburgh, PA

2014-2018, Research Associate, Brookhaven National Laboratory and Columbia University, NY

Research Interests: Materials modeling, catalysis, electrocatalysis, density functional theory (DFT) calculations, kinetic Monte Carlo simulations, Machine Learning

Selected recent publications (Full publication list: [google scholar](#))

1. Y. Wang, S. Kattel, W. Gao, K. Li, P. Liu, J. G. Chen, and H. Wang, “Exploring the ternary interactions in Cu–ZnO–ZrO₂ catalysts for efficient CO₂ hydrogenation to methanol”, *Nat. Commun.*, 2019, 10, 1166.
2. S. Kattel, J. G. Chen and P. Liu, “Mechanistic study of dry reforming of ethane by CO₂ on a bimetallic PtNi (111) model surface”, *Catal. Sci. & Technol.* 2018, 8, 3748–3758.
3. S. Kattel, P. Liu and J. G. Chen, “Tuning Selectivity of CO₂ Hydrogenation Reactions at the Metal/Oxide Interface”, *J. Am. Chem. Soc.*, 2017, 139, 9739-9754.
4. S. Kattel, P. J. Ramírez, J. G. Chen, J. A. Rodriguez, and P. Liu, “Active Sites for CO₂ Hydrogenation to Methanol on Cu/ZnO Catalysts”, *Science* 2017, 355, 1296-1299.
5. S. Kattel, W. Yu, B. Yan, X. Yang, Y. Huang, W. Wan, P. Liu, and J. G. Chen, “CO₂ Hydrogenation over Oxide-Supported PtCo Catalysts: The Role of the Oxide Support in Determining the Product Selectivity”, *Angew. Chem. Int. Ed.* 2016, 55, 7968-7973.