

Catalyst structures: What do we want and how do we make them?

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The atomic structure of enzyme catalysts over length scales of many bonds is critical for their performance. What about solid, heterogeneous catalysts? In this lecture I will offer my personal views on this subject and present some examples where it appears the atomic structure of surfaces, over the length scale of multiple bonds, plays an important role in chemical and catalytic function. With this knowledge in hand, I will go on to offer some ideas for how one might synthesize the desired catalytic materials.