

Chemical Complexity in Catalysis: How much of it is essential?

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The contribution analyses the current practice to approximate high performance catalysts by model systems and to analyze them in terms of elementary functions. The resulting insight should enable the design of novel (and better) catalysts. In this endeavor substantial successes come along with some minor practical set-backs such as stability under realistic conditions. It will be demonstrated that a fruitful synergy between theory and experiments respecting the methodical boundaries in each domain are the most promising strategy to approach old and new challenges in catalysis.