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# Organic and Inorganic Chemistry

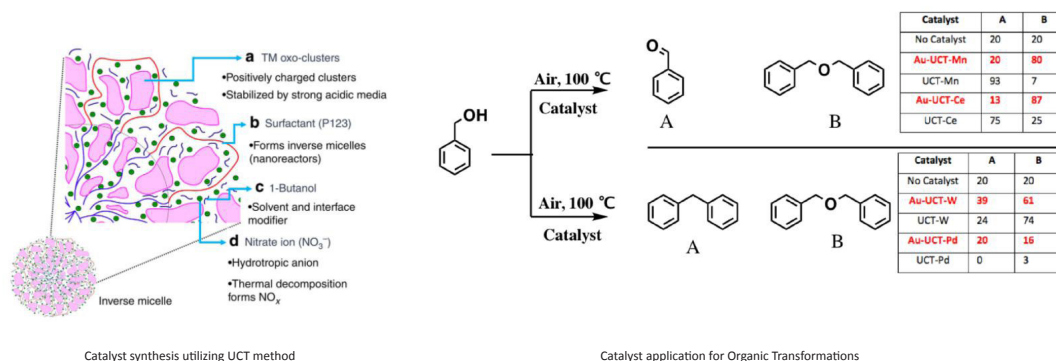
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## Organic transformations utilizing gold supported transition metal oxide catalysts

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Gold is a very expensive metal but at the same time using this as a catalyst plenty of organic reactions can be catalyzed. Hence to make this experimentally viable our idea was to develop novel catalysts where gold is being used as a supported metal. Keeping this in mind we synthesized various gold supported mesoporous transition metal oxide catalysts using the UCT method. We used XRD, SEM, TEM, BET, and XPS instruments for characterization. From XRD phase analysis we found that gold is getting doped into some of the catalytic systems. Mesoporosity was confirmed using BET surface area analysis and we observed some gold doped systems are more mesoporous than undoped ones. These catalysts were then utilized for a series of organic transformation reactions. We observed that most gold supported catalytic systems give improvement in selectivity and reactivity. This work is still in progress and we are trying to optimize the catalytic conditions and extend this work to many other organic transformation reactions.



Catalyst synthesis utilizing UCT method

Catalyst application for Organic Transformations

## Biography

FNU Shubhashish obtained BS-MS dual degree in Chemistry from Indian Institute of Science Education and Research, Bhopal. Then in 2016 moved to USA, University of Connecticut for Doctoral studies in the Department of Chemistry under the supervision of Prof. Steven Suib. His work mostly focuses on Catalysis and its application in organic transformation.

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