Special Seminar

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Laboratory of Chemistry

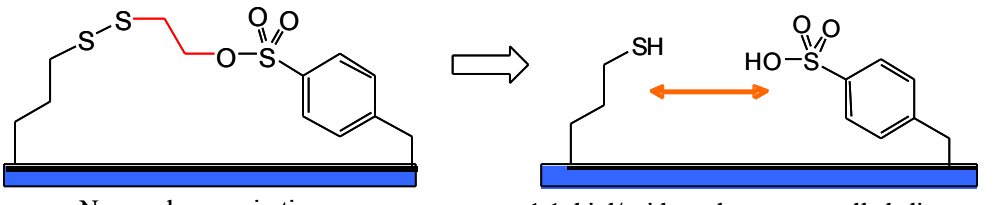
Molecular Approach to the Design of Heterogeneous Catalysts

Thursday
August 5, 2010
2:30 p.m.

Room 9341Chemistry

Solid catalysts bearing multiple types of catalytically active sites are of great interest. These functionalities may be used to perform several steps in a cascade reaction sequence or work in a cooperative manner to provide activity greater than either could achieve alone. When seeking cooperative behavior, control of the distance between the reactive groups is essential in order to optimize the catalysis for a particular reaction.

In the present seminar, we will focus on acid/thiol modified mesoporous hybrid materials as catalysts for the condensation of acetone and phenol to bisphenol A. We were able to show how the nanoscale organization of catalytic surfaces can be tuned to provide a level of reactivity control unachievable through traditional random functionalization approaches.



Nanoscale organisation

1:1 thiol/acid catalyst at controlled distance