



School of Nano Science

Monthly Colloquium

Periodic Mesoporous Organosilica with Ionic Liquid type Framework (PMO-IL): Innovative Functional Materials for High Performance Immobilized Catalyst Systems

Invited Speaker:

Prof. Babak Karimi

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Abstract:

The last years of 20th century have witnessed with two dramatic developments in the field of chemistry and material chemistry. In one hand ionic liquids (ILs) were introduced and found widespread application as environmentally non-volatile solvents in variety of area from catalysis to separation science. On the other hand, a new class of hybrid organic-inorganic materials called periodic mesoporous organosilicas (PMOs) built from bridge organosilica precursors, $[(R'O)_3Si-R-Si(OR')_3]$, wherein organic group R is an integral part of the mesoporous walls was discovered in 1999. In this talk, I am going to present our challenges in combining these two concepts which resulted in the discovery of a new class of innovative functional materials so-called periodic mesoporous organosilicas with ionic liquid framework (PMO-IL). These innovative materials have thus far successfully employed in several important chemical applications, thus enabling us to extend the concept of “bulk ionic liquid chemistry” into the “wall ionic liquid chemistry” inside the hybrid mesoporous material world.

Wednesday, 18 Day 98 (08 January , 2020), 4 - 5 pm
Farmaniyeh Building, Conference Hall.