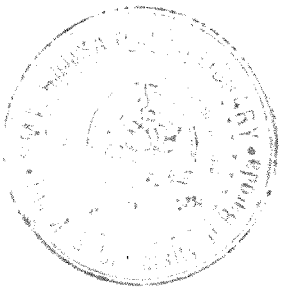

Novelty of the work

- A non-hydrothermal synthetic route for synthesis of mesoporous silica MCM-41, SBA-15 was developed.
- We have overcome the key issues with "Supported Heteropolyacids" such as retention of polyanion structure of Keggin HPAs, their firm fixation and uniform dispersion.
- We could successfully develop, a green process for synthesis of diesters over present catalysts.
- Biodiesel production by using waste cooking oil as feedstock's over synthesized catalysts.
- We have successfully developed environmentally benign catalysts and established its use for biodiesel production as a contribution towards Green Chemistry for Sustainability.