Name Paresh L. Dhepe

Division Catalysis Division

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Education and experience

PhD at Hokkaido University, Japan (Heterogeneous Catalysis)

Post doctoral fellow, Japan

• Synthesis and characterization of heterogeneous catalysts

Utilization of biomass for the synthesis of chemicals

Analysis of sugar compounds

Materials synthesis (mesoporous and microporous)

Achievements

Ph.D. student won the best publication award in year 2010

Research subjects

Green Chemistry, Biomass conversion, Heterogeneous catalysis

Research Area

- Green chemistry: Conversion of biomass (renewable feedstock) into value-added chemicals by environmental friendly routes (Green pathways).
- <u>Catalyst designing</u>: Synthesis and characterization of mesoporous silicas, supported metal nanostructures and solid acids.
- <u>Catalysis</u>: Hydrolysis, hydrogenolysis, hydrogenation, Hydroxylation, oxidation, dehydrocyclization, isomerization reactions by heterogeneous catalysts.

Recent publications

- R. Sahu, and <u>P. L. Dhepe</u>, A one-pot method for the selective conversion of hemicellulose from crop waste into C5 sugars and furfural by using solid acid catalysts, *ChemSusChem*, DOI: 10.1002/cssc.201100448 (2012).
- H. Kobayashi, Y. Ito, T. Komanoya, Y. Hosaka, <u>P. L. Dhepe</u>, K. Kasai, K. Hara and A. Fukuoka, "Synthesis of Sugar Alcohols by Hydrolytic Hydrogenation of Cellulose Over Supported Metal Catalysts" *Green Chem.* 13 (2011) 226.
- P. L. Dhepe and R. Sahu, "A Solid Acid Based Process for the Conversion of Hemicellulose" *Green Chem.*, 12 (2010) 2153.

