

## Praveenkumar Boopalachandran

•402 Nagle Street, #201, College Station, TX 77840 • (979) 4924824 • praveen\_tamu@neo.tamu.edu

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### Summary

- Excellent communication skills and a professional demeanor gained through extensive interaction with colleagues and leadership roles in college activities.
- Unique combination of creativity and research skills with a high math aptitude in thermodynamic calculations.

### Experience

Texas A & M University, College Station, TX, 2003-2009

#### Research Assistant

- To determine the potential energy surfaces using FTIR, Raman, UV and fluorescence spectroscopies of cyclic molecules such as cyclopentane and cyclopentene in the electronic ground and excited states.
- Skilled in using Nd:YAG pumped OPO laser.
- Synthesis and characterization (XRD, TEM and XPS) of mono and bimetallic supported catalysts using incipient wetness method and precipitation techniques.
- Synthesis of Vinyl Acetate using mono and bimetallic supported catalysts.
- CO oxidation using mono and bimetallic supported catalysts.
- PROX studies using mono and bimetallic supported catalysts.

#### Teaching Assistant

- Organic, Physical and General chemistry labs.

Texas A & M University, Commerce, TX, 2002-2003

#### Research Assistant

- Mesoporous material preparation, Characterization (BET, TPD and TPR analysis) and its application to reduce NO<sub>x</sub>.
- Plasma Modification of Supported Catalysts to increase the catalytic activity and selectivity.

### Publications

- Jason Zhan, Praveen Boopalachandran, Ben W.-L. Jang, Jai Cho and Richard B. Timmons "RF Plasma Modification of Supported Pt Catalysts for CO<sub>2</sub>-CH<sub>4</sub> Reforming" *Am. Chem. Soc., Div. of Fuel Chem. PREPRINTS*, **2004**, 49(1), p176.
- Kinetics of Vinyl Acetate synthesis using acetate based Pd-Au/SiO<sub>2</sub> Catalyst (*In preparation, 2006-2007*).

## Presentations

- Praveen Boopalachandran, Jason Zhan and Ben W.-L. Jang “Synthesis of Mesoporous Alumina for NO<sub>x</sub> Reduction” presented at the ACSSW Regional Meeting at Austin, TX in Nov. **2002**.
- Jason Zhan, Praveen Boopalachandran, Ben W.-L. Jang, Jai Choi and Richard B. Timmons “Plasma effect on Properties of supported Pt catalysts” presented at the 225<sup>th</sup> ACS National Meeting in New Orleans, LA on March 23-27, **2003**.
- D.Kumar, Y.F.-Han, M.S. Chen, P.Boopalachandran and D.W.Goodman “*Synthesis of Vinyl Acetate over Pd Catalysts*” presented at South West Catalysis Symposium, Rice University, TX in March **2005**

## Education

- Doctor of Philosophy, *Physical Chemistry*, (2006-2009)  
Texas A & M University, College Station, TX.
- Master of Science, *Physical Chemistry*, 2003-2006  
Texas A & M University, College Station, TX.
- Master of Science, *General Chemistry*, 2002-2003  
Texas A & M University, Commerce, TX.
- Bachelor of Technology, *Chemical Engineering*, 1995-1999.  
University of Madras, Madras, India.

## Leadership skills

- TAMU C, Senator in Student Government Association, 2002-2003.
- TAMU C, President for Association of International Students, 2002-2003.

## Computer skills

- **Platform:** UNIX, • **Operating Systems:** DOS & WINDOWS, • **Packages:** MS Office, • **Languages:** FORTRAN, SAS, C & C++, • **Internet Applications:** HTML, FrontPage, Dream weaver.