

# ST. THOMAS COLLEGE, KOZHENCHERRY

## DEPARTMENT OF CHEMISTRY

### FACULTY BIOSKETCH

- **Name** : Dr. Cimi A. Daniel
- **Designation** : Assistant Professor
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- **Qualification** : M.Sc., M.Tech, Ph.D.
- **Brief Overview** :

Awarded Ph.D. for the thesis entitled “*Synthesis, Characterization and Catalytic Activity of Nanocrystalline Ceria Modified with Zirconia*” from the Department of Applied Chemistry, Cochin University of Science and Technology, Cochin, Kerala on 16-07-2014.

Completed M.Sc. from School of Chemical Sciences, Mahatma Gandhi University, Kottayam, Kerala.

➤ **Area of Specialization/Research Interests :**

Catalysis/Heterogeneous Catalysis

➤ **Publications :**

1. "Cerium Zirconia Mixed Oxides Prepared by Hydrothermal Templating Method for the Oxidation of Ethyl Benzene" Cimi A. Daniel, S. Sugunan, Bulletin of Chemical Reaction Engineering & Catalysis 8 (2013) 97.
2. "Surfactant-Assisted Hydrothermal Synthesis of Cerium-Zirconia Nanostructured Materials for Catalytic Applications" Cimi A. Daniel, S. Sugunan, IOSR Journal of Applied Chemistry 5 (2013) 23.

**Conference/ Presentations**

1. **Cimi A. Daniel**, S. Sugunan, "A comparative study of transesterification reaction over metal modified cerium zirconia catalysts" International Research Conference on advanced techniques in chemistry (IRCATC-2014) Department of Chemistry, St. Albert's College, Ernakulam, January 2014.
2. **Cimi A. Daniel**, S. Sugunan, "A comparative study of ethyl benzene oxidation reaction over cerium zirconia supported catalysts" National conference on Emerging Technologies for the Processing and Utilization of Beach Sand Minerals (Reaindia) March 1-2, 2013.
3. **Cimi A. Daniel**, S. Sugunan, "Catalytic efficiency of modified cerium zirconia catalyst towards the transesterification reaction" National Seminar on Nanoscience and Technology, Sree Narayana Gurukulam College of Engineering, Kolenchery, Feb 2013.
4. **Cimi A. Daniel**, S. Sugunan "Comparison of catalytic activity over different compositions of cerium zirconia prepared by hydrothermal templating method" "Current Trends in Chemistry" (CTriC-2012); Department of Applied Chemistry, Cochin University of Science and Technology, Cochin, January 2012.
5. **Cimi A. Daniel**, S. Sugunan "Catalytic performance of cerium zirconia in liquid-phase oxidation of ethyl benzene with *tert*-butyl hydro peroxide" Current Trends in

Chemistry (CTriC-2011), Department of Applied Chemistry, Cochin University of Science and Technology, Cochin, March-2011.

6. **Cimi A. Daniel**, S. Sugunan “Catalytic efficiency of ceria–zirconia material for the oxidation of hydrocarbons” 20<sup>th</sup> national symposium on Catalysis for energy conversion and conservation of environment, Indian Institute of Technology, Chennai, Dec 2010.
7. **Cimi A. Daniel**, S. Sugunan “Oxidation of benzene to phenol by ceria-zirconia as heterogeneous catalyst” International congress on analytical science (ICAS2010) Kochi, Nov 2010.
8. **Cimi A. Daniel**, S. Sugunan “Preparation, characterization and catalytic activity studies of transition metal modified ceria-zirconia” International Conference on Materials for the Millenium (Mat-Con2010) Department of Applied Chemistry, Cochin University of Science and Technology, Cochin, Jan 2010.
9. **Cimi A. Daniel**, S. Sugunan “Synthesis of transition metal modified cerium-zirconium mixed oxides by hydrothermal templating method” 22<sup>nd</sup> Kerala Science Congress, KFRI, Peechi, Jan 2010.
10. **Cimi A. Daniel**, Satheesh Babu and S. Sugunan “Preparation, characterization and catalytic activity studies of transition metal modified ceria” National conference on advances in physical and theoretical chemistry (APTChem-2009) Department of Chemistry, Calicut University, March 2009.

### **Participation in Workshops**

- Orientation Programme in Catalysis Research, IIT Chennai, 17<sup>th</sup>- Nov to 8<sup>th</sup>- Dec 2008.
- Workshop on Applications of Mass Spectrometry and Related Hyphenated Techniques in Analytical Science, Indian Society of Analytical Scientists [ISAS], 25<sup>th</sup>- April 2009.
- Workshop on Molecular Probes – Technology and Applications, ISAS/Kochi, 24<sup>th</sup>- November 2010.