

**ICB seminar series 2016/17**

chairman: Prof. Dr. Andrew deMello

# SELECTED TOPICS RELATED TO ENERGY AND CHEMICALS

## **Prof. Dr. Arvind Varma**

R. Games Slayter Distinguished Professor  
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ICB Guest Professor 2017



**ETH Hönggerberg, 26/04/2017**

**HCI J 7, 17.00 h**

**Abstract.** In the presentation, some selected research programs to produce energy carriers and valuable chemicals from new or renewable sources, currently being conducted or recently completed in my laboratory, will be discussed. These include (i) hydrogen generation for PEM fuel cell vehicle applications, (ii) catalytic upgrading of bio-oils, and (iii) utilization of glycerol, a biodiesel waste product, for production of valuable chemicals and fuels. The research relies on development of new catalytic materials and/or processes and demonstrates successful applications of the principles of chemical and catalytic reaction engineering to solve problems of contemporary interest.

**Speaker highlights.** Dr. Arvind Varma has served as the R. Games Slayter Distinguished Professor of Chemical Engineering at Purdue University since January 2004. From then until July 31, 2016 he was also the Jay and Cynthia Ihlenfeld Head of Chemical Engineering. Prior to joining Purdue, he was at the University of Notre Dame. His research interests are in chemical and catalytic reaction engineering, and clean energy sources. He has published over 300 archival journal research articles in these areas, co-authored three books and co-edited two books. He is the founding Editor (1996-present) of the *Cambridge Series in Chemical Engineering*, a series of textbooks and monographs published by the Cambridge University Press. Professor Varma received his PhD degree from the University of Minnesota (1972). He has received several recognitions for his research and teaching, including AIChE's R. H. Wilhelm (1993) and Warren K. Lewis (2013) awards, and the Chemical Engineering Lectureship Award, ASEE (2000). He is a Fellow of AIChE and of the American Association for the Advancement of Science.