## MUSC Research Forum



**Special Seminar in Chemistry** 

## Molecular olefin polymerization catalysts: fundamentals and industrial outlook

Monday, Sep 5, 2016 | 2:30 - 4:00 PM

at Room K102, Chalermprakiat Building, Faculty of Science, Mahidol University, Phayathai



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## Fundamentals and Industrial outlook

Molecular catalysts for olefin polymerization were disclosed almost as early as heterogeneous Ziegler-Natta and Phillips ones. However, for over two decades the lack of understanding of their activation mechanism hampered practical use. The serendipitous discovery of methylalumoxane (MAO) represented the breakthrough that ultimately triggered the dramatic boost of the last 30 years. Compared with heterogeneous systems, the well-defined nature of the precursor species is unquestionably of great advantage to tailor application, but it is not much more than a convenient starting point; downstream, a smart identification of the target, based on a solid understanding of the chemistry and a clear vision of the market, is mandatory to succeed. In this talk, a number of case histories will be discussed in order to highlight the concept.