

# Scientific & Technological Strategy for the Study of Catalytic Reaction

## Trans-disciplinary Projects

Leader : M.Terano ( Professor, School of Materials Science )

### ✚ Research Outline

Scientific & technological strategy for the laboratory management in the research field of catalytic reaction with transition metal compound has been studied from the following directions.

strategic project management in the university laboratory

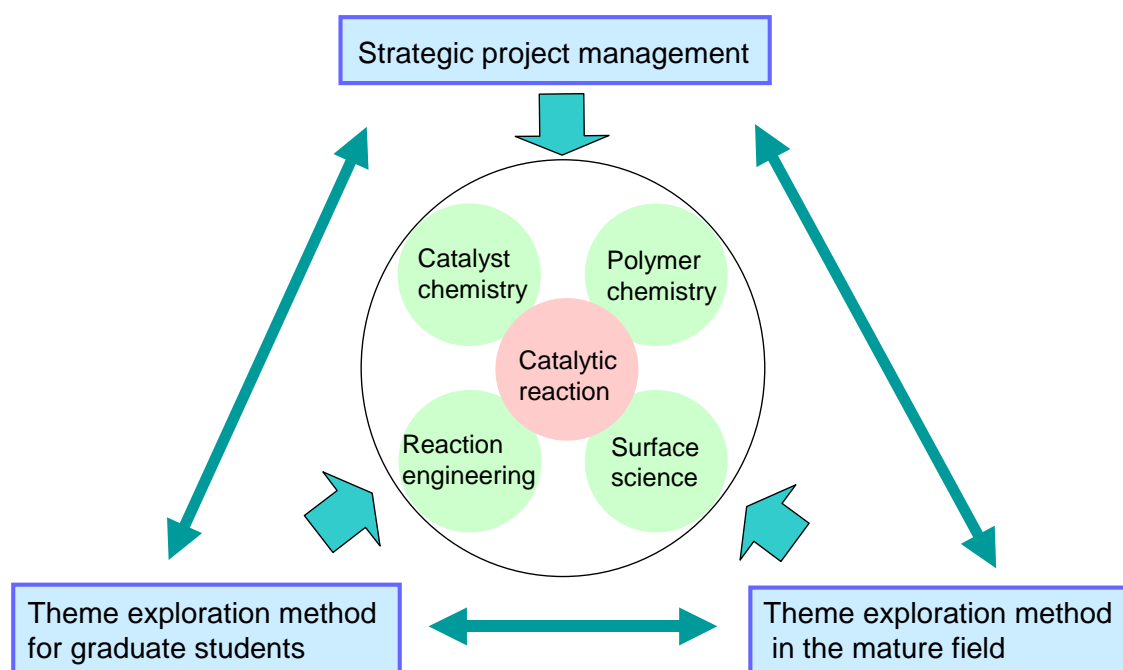
A research project on catalytic reaction with transition metal compound is selected as a model case.

Theme exploration method for matured Industrial field

Effective method to find a new research theme which can make an innovation in the matured industrial field is investigated.

Theme exploration method for graduate students

Effective exploration method for graduate students to find their research themes is studied in order to use in and out of JAIST.



### ✚ Members

JAIST : T.Kobayashi (Assoc. Prof., Strategic Center), T.Tatsuse (Fellow, Strategic Center), B.Liu (Associate, School of Materials Science), W. Qi (PD, School of Materials Science), S.Suzuki (School of Materials Science)

Others : A.Nagata (Assoc. Prof., Kyushu Univ.), K.Shinozaki (Lecturer, Tokyo Fuji Univ.)

### ✚ Publications

• Effect of Electron Donor on Active Sites Distribution of  $MgCl_2$ -Supported Ziegler-Natta Catalysts Investigated by Multiple Active Sites Model, Q.Wang, N.Murayama, B.Liu, M.Terano, Macromol Chem Phys, accepted

• High resolution X-Ray photoelectron spectroscopic analysis of transformation of surface chromium species on Phillips  $CrO_x/SiO_2$  catalysts isothermally calcined at various temperatures, B. Liu, Y. Fan, M. Terano, J. Mol. Catal. 219, 165-173, 2004