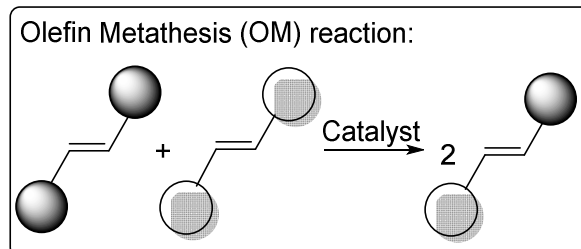


Science and Technology Group Annual Report FY2017

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1 Introduction

The olefin metathesis reaction is among the most widely applicable catalytic reactions for carbon-carbon double bond formation. Currently, Mo- and Ru-carbene catalysts are the most common choices for this reaction. It has been anticipated that base metal catalyst would be a desirable economical and biocompatible substitute of the Ru-catalysts. *In this project, we are going to develop such base metal catalyzed olefin metathesis reactions using manganese organometallic complexes.*



2 Activities and Findings

Installation of a glovebox (right picture) required for this project was completed in the end of February 2017. Since then I have started to synthesize air-sensitive manganese complexes. Results regarding synthesis of these complexes and their catalytic activity towards olefin metathesis will be reported in annual report FY2018.



3 Collaborations

I have worked with Prof. David Milstein at Weizmann Institute of Science in Israel until July 2017. After started to work at OIST on October 2017, I visited the Milstein lab to revise a paper from October to December. This revision work has been carried out with corroboration with Prof. Milstein, Dr. Moran Feller, Dr. Mark Iron, at Weizmann Institute of Science, and Dr. Urs Gellrich, Justus Liebig University Giessen. The revision work is in progress as of July 2018.

4 Publications and other output

Takebayashi, S.; Milstein, D
Iron-Catalyzed Metathesis Polymerization of Olefins.
Israeli patent, 2017, 253760.