

Visit to: Korean Institute of Materials Science (KIMS) – Changwon – South Korea

Visit period: 07.10.2015 – 17.10.2015

Visitor: Dr. Reza Darvishi Kamachali (Project DA 1655-1/1)

Host: Dr. Chang-Seok Oh

The short visit in October 2015 was meant as an initiative for possible collaboration on the common topics of interest, i.e. precipitation and creep with a special focus on AL-Li model alloy as it is proposed in the M1 project (Darvishi Kamachali/ Skrotzki) within the SPP1713. The team of Dr. Oh and several other groups have shown great interest for collaborations with the solid-solid interface kinetic group in ICAMS. Due to their strong experimental backgrounds and abilities, KIMS has been seen as a potential collaborator for performing complementary experiments to examine the theoretical and simulation studies within M1 project. There were several activities and ideas which have developed during this visit:

- Recent modelling and simulation studies in solid-solid interface kinetic group have been introduced to KIMS members. The main focus of discussions has been around phase separation via precipitation and phase-field modelling.
- A hand-on session on OpenPhase software and phase-field modelling was presented to KIMS member.
- Based on the discussions and experimental possibilities, growth and ripening of δ' precipitates in Al-Li system have been targeted as the first step in our collaboration. A proposal on the experimental studies has been developed and initiated. The features mechanochemical coupling and its influence on the precipitation is to be studied using SEM and in-situ TEM technique by KIMS. An outlook towards effect of load and more complex systems is foreseen.
- Another visit is planned for near future to intensify the collaboration and bring the two teams closer.