

Research, Informatics and Graduate Studies

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PhD / Master (MSc) Positions in Organic Chemistry-Group of Prof. Sehoon Park (GS-2019004)

The Chemistry Program (group of Prof. Sehoon Park) is looking for 2 PhD/Master students to conduct experimental research projects in organic chemistry related to C-H functionalizations and organocatalytic reduction.

Contract duration for PhD: 3 + 1 years.

Project Details

The Park group will drive a research direction toward discovery of *new reactivity* to molecules in catalysis, which will be guided on the basis of synthetic and mechanistic organometallic chemistry. With this direction in mind, the Park group's research goal is to develop homogeneous catalytic systems for selective transformations of naturally abundant, but inert molecules including simple (hetero)aromatics, alkanes, alkenes, and CO₂ to provide valuable synthetic feedstocks. Our first research target is to enable the metal-free or non-precious metal-catalyzed dehydrogenative C-H functionalizations of alkanes and (hetero)arenes with inexpensive coupling reagents such as organosilicon and boron. The second project is to synthesize finely-tuned and distinctive olefin polymers by applying new polymerization catalysts or unique olefin monomers. The Park group will also play on the interface between homo- and heterogeneous catalysis in close collaboration with experts of materials science.

Keywords

C-H Functionalizations of hydrocarbons, Asymmetric catalysis, Metal-free organocatalytic reduction, Single-site olefin polymerization, Heterogeneous catalysis.

Selection Criteria

- Master degree (or equivalent) in Chemistry or Material Science (essential)
- Strong background in organic chemistry and organometallic chemistry (preferable)
- Strong interest in organic synthesis, organometallic catalysis
- Good communication skills, good command of English (essential)
- Ability to author scientific reports and scientific publications (essential)
- The PhD candidate must fulfill the requirements for admission to the Technion Graduate School and needs to comply with its regulations leading to the PhD/Master degree: <https://graduate.technion.ac.il/en/prospective-students/>

Program

Chemistry

Research Area

Organic Chemistry

Contacts

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[Web Page Link](#)

Application Deadline

Open till filled

Location

Guangdong Technion - Israel Institute of Technology (GTIIT), China & Technion-Israel Institute of Technology, Haifa

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[Fees & Finance](#)

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