Research, Informatics and Graduate Studies

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PhD/Master (MSc) Positions in the Lab. of Precise Catalytic Organic Transformations (GS-2022007) – Group of Assoc. Prof. Sehoon Park

Description

The Prof. Sehoon Park group (Chemistry Program) is looking for **2 PhD/Master students** to conduct research projects **in the field of synthetic and organometallic chemistry**, which particularly involved in transition metal-catalyzed C-H functionalizations and unique olefin polymerizations.

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. The Park group's research goal is to develop efficient catalytic systems for selective transformations of naturally abundant, but inert molecules including simple (hetero)aromatics, alkanes, and alkenes to provide new synthetic (chiral) intermediates for pharmaceuticals and natural products, and unique polymeric materials.

(**I**) Our primary research goal is to enable non-precious metal-catalyzed oxidative C-H functionalizations of alkanes and reductive functionalizations of (hetero)arenes by using organosilicon and boron reagents.

(**II**) The second research program is to synthesize unique structures of polymers via coordination polymerization followed by post-modification, and to systematically study the relationship between the structure of repeating units and the polymer's physical/rheological properties in close collaborations with material scientists.

Keywords

Synthetic methodology, Organometallic chemistry, Enantioselective catalysis, Reduction chemistry, Olefin polymerization

Selection Criteria

- Bachelor or Master degree in Chemistry (or equivalent) with average GPA min. 80% for Bachelor and 85% for Master (**essential**)
- Strong English communication ability or good GRE score (min. 80% in quantitative part and 3.0 in the analytical part; GRE code 4213 GTIIT) (preferred)
- Strong background or experience in synthetic chemistry or organometallic catalysis (preferred)
- At least *one* first-authored paper for MSc or Ph.D. candidate (**essential**)
- Ability to author scientific reports and scientific publications (preferred)
- The MSc and Ph.D. candidates must fulfill the requirements for admission to the Technion Graduate School and needs to comply with its regulations leading to the Master/PhD degree: https://graduate.technion.ac.il/en/prospective-students/

Application and Contact:

- Application deadline: until the position is filled.
- Send CV to: sehoon.park@gtiit.edu.cn with CC to ruibin.wang@gtiit.edu.cn

Position
PhD/Master

Program
Chemistry

Research Area
Synthetic methodology, Organometallic chemistry, Enantioselective catalysis, Reduction chemistry, Olefin polymerization

Contact
Assoc. Prof. Sehoon Park

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Web Page Link

Date posted
March 25, 2022

Location
Guangdong Technion – Israel Institute of Technology (GTIIT), China & Technion-Israel Institute of Technology, Israel.

Fees & Finance

How to Apply

(project manager).

- For your reference, please visit the Park group homepage in https://sites.gtiit.edu.cn/parkgroup/.