

# Research, Informatics and Graduate Studies

<https://sites.gtiit.edu.cn/research/positions/gs-2023006/>

## PhD/Master (MSc) Positions in Catalytic Conversion of Biomass/Plastic (GS-2023006) – Group of Assoc. Prof. Xi Gao

### Description

The Chemical Engineering Program (group of Xi Gao), is looking for two PhD/Master candidates to conduct research projects in the catalytic conversion of biomass/plastic into high-value fuels, chemicals, and materials. Contract duration: 2-3 years for Master and 3.5-4 years for PhD.

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### Project Details

The main objective of the project is to (1) catalytic conversion of plastic into hydrogen and low-carbon fuels, (2) catalytic conversion of biomass into high-value fuels (such as jet fuels), chemicals (such as polyols, sugars, phenols) and carbon materials, etc., (3) catalytic hydrogenation of biomass-derived molecules into high-value chemicals, with the application in cosmic, pharmaceutical, and food, (4) DFT investigate of catalytic mechanism.

Group Website: <http://gaoxlab.com>

1. Catalytic conversion of plastic into hydrogen and low-carbon fuels; 2. Catalytic conversion of biomass into high-value fuels (such as jet fuels), chemicals (such as polyols, sugars, phenols) and carbon materials, etc.; 3. Catalytic hydrogenation of biomass-derived molecules into high-value chemicals, with the application in cosmic, pharmaceutical, and food; 4. DFT investigate of catalytic mechanism.

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### Keywords

Catalytic Conversion; Plastic; Biomass; Hydrogenation; DFT; Machine Learning

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### Selection Criteria

- (PhD program) Master's degree (or equivalent) in Chemical Engineering, Chemistry, Material Engineering, or in a relevant engineering and Science discipline (essential)
- (MS program) Bachelor's degree in Chemical Engineering, Chemistry, Material Engineering, or in a relevant engineering and Science discipline (essential)
- Strong background in catalysis (preferable)
- Good communication skills, good command of English (essential)
- Ability to work independently as well as in a team environment (essential)
- Ability to author/co-author high-quality scientific publications (essential)

The PhD/Master candidate must fulfill the requirements for admission to the

### Position

PhD/Master

### Program

Chemical Engineering

### Contact

Assoc. Prof. Xi Gao

Email: [xi.gao@gtiit.edu.cn](mailto:xi.gao@gtiit.edu.cn)

### Web Page Link

### Application Deadline

Open till filled

### Date posted

October 11, 2023

### Location

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

### Fees & Finance

How to Apply

Technion Graduate School and needs to comply with its regulations leading to the PhD/Master degree: <https://graduate.technion.ac.il/en/prospective-students/>

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### Application

- Application deadline: Open till filled [?](#)
- Contact: Prof. Xi Gao (Email: [xi.gao@gtiit.edu.cn](mailto:xi.gao@gtiit.edu.cn))