

# Research, Informatics and Graduate Studies

<https://sites.gtiit.edu.cn/research/positions/gs-2021002/>

## PhD Position in Materials Under Extreme Conditions (GS-2021002) – Group of Assoc. Prof. Elissaios Stavrou

The Materials and Science Engineering Program (group of Assoc. Prof. Elissaios Stavrou) is looking for one PhD students to conduct experimental research projects in novel materials under extreme conditions.

Contract duration: 3 + 1 years.

### Project Details

The focus of the group is to synthesize “materials by design” that are precisely tailored to offer specific properties and be used in specific applications. One way to overcome present barriers in the synthesis of materials is to alter the fundamental chemistry that governs the relevant chemical systems. In this context, tuning the composition of a given chemical system beyond a thermodynamically stable one at ambient conditions represents an extremely promising approach. Such materials have the potential to provide the fundamental knowledge needed to enable the development of next-generation technologies. In addition to the formation of novel compounds with enhanced properties, such studies are applicable to interdisciplinary basic research outstanding scientific questions.

We work in a collaborative international environment; the working language is English.

### Keywords

High pressure and temperature, Chemistry under Extreme, Novel synthesis approaches and materials, Ultrafast chemical dynamics

### Selection Criteria

- Master degree (or equivalent) in Physics, Chemistry, Material Science, or related field (essential)
- Strong background in condensed matter physics (preferable)
- Strong interest to work temporarily at large-scale research facilities in China, Europe, United States and Japan (essential).
- Strong interest in synthesis of novel materials under extreme conditions (essential).
- Strong background in condensed matter chemical physics (preferable).
- Previous experience in X-ray diffraction and vibrational spectroscopy (preferable).
- Previous experience in high-pressure experimental techniques (preferable).
- Good communication skills, good command of English (essential).
- Ability to work independently as well as in a team environment (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: <https://graduate.technion.ac.il/en/prospective-students/>

### Position

PhD

### Program

Materials Science and Engineering

### Research Area

High pressure and temperature, Chemistry under Extreme, Novel synthesis approaches and materials, Ultrafast chemical dynamics

### Contact

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### Application Deadline

Open till filled

### Date Posted

23 February 2021

### Location

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

### [Fees & Finance](#)

how to apply