

Research, Informatics and Graduate Studies

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Research Fellow Positions in Nanocomposites and Energy Storage -Group of Prof. Daniel Tan (RF-2018006)

Description

Prof. Daniel Tan of The Materials Science and Engineering Program is looking for two post-doc level scientists to lead experimental research projects in polymer-based nanocomposite and electrochemical ultracapacitor device fabrication. Contract duration: 3 years.

Project Details

The Tan group pursues film processing, electrochemical ultracapacitor research and analytical techniques with advanced microanalysis and spectroscopy tools to enhance energy density and voltage rating. The group extensively leverages know-how in atomic layer deposition tool, electrode material processing, dielectric characterization, and electrical impedance spectroscopy to investigate dielectric phenomena and device performance. By collaborating with other labs and universities worldwide, we will understand the relationship between process, structure and properties of polymer nanocomposites, high performance electrodes, and build up superior dielectric and high voltage energy storage technologies.

Keywords

Nanocomposite, tunable resistance, dielectric, polymer film, graphene electrode, electrochemical double layer capacitor, electrical impedance spectroscopy, ALD coating of particles, cell construction and testing.

Selection Criteria

- PhD degree in Chemistry or Material Science or Electrical Engineering
- Strong background in polymer composites and electrical insulation (Position 1)
- Strong background in electrochemistry and energy storage (Position 2)
- Hands on experience with polymer film processing, nanocarbon-based electrodes processing and characterization
- Self-motivated experimental skills in device fabrication and electrical tests
- Desirable skills or knowledge with computer modeling (Position 1)
- Ability in good English speaking and scientific article writing

Benefits

- Salary range: up to \$49,000 / year (depending on qualifications of the candidate)
- Subsidized housing at GTIIT, China
- Health insurance: regular cover for Chinese citizens or private health insurance for foreigners
- Professional conference travel allowance

Program

Materials Science and Engineering Program

Research Area

polymer-based nanocomposite and electrochemical ultracapacitor device fabrication

Contacts

Prof. Daniel Tan

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Application Deadline

31 July 2018

Date Posted

April 11, 2018

Application

– Application deadline: **31 July 2018**

– Send below required documents electronically to: daniel.tan@gtiit.edu.cn

1. Curriculum vitae and personal statements
2. A publication list
3. Three letters of recommendation (one from the mentor for PhD and/or Master's studies)
4. A short research plan outline (up to one page in length)
5. Degree certificates with certified English translation for both the PhD and Master's degrees