

Development of thermally stable nanocomposite membranes

PROJECT DESCRIPTION

Organic-inorganic nanocomposite membranes have attracted considerable attention due to their extraordinary properties, such as enhanced antifouling properties, increased thermal and mechanical strength and improved permeation and electrical properties. A variety of nanoparticles such as SiO₂, Al₂O₃, Fe₃O₄, ZrO₂ and TiO₂ which are classified as simple oxides (single-element oxides), have been used so far. In the present work effect of adding complex oxides (multi-element oxides such as ITO and ATO nanoparticles) and graphene nanoribbons into the polymer matrix on antifouling properties of the polymer will be studied for the first time.

FACULTY-DEPARTMENT

Engineering - Mechanical Engineering

OPEN TO STUDENTS FROM THE FOLLOWING INSTITUTIONS

Chinese universities participating in the [*Double First-Class Initiative*](#).

DESIRED FIELD OF STUDENT STUDY

Chemical Engineering, Chemistry, Mechanical Engineering

INTERNSHIP LOCATION

Edmonton Campus

NUMBER OF INTERNSHIP POSITIONS

2

INTERNSHIP DATES

Start: July 2, 2019

End: October 2, 2019

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.