

Solution Processed Optoelectronics

PROJECT DESCRIPTION

Solution-processed colloidal quantum dot (CQD) materials have been developed for next-generation optoelectronics in the past decade. Various CQD-based devices, such as photodetectors, light-emitting diodes, and solar cells, show promising results in terms of detection sensitivity, device response time, and other features of merits. Integrating CQDs with current optoelectronic devices using GaAs and Si materials has also been reported for various applications. In this project, students will carry out modelling and experimental works to develop CQD-based optoelectronic devices for sensing and energy harvesting.

FACULTY-DEPARTMENT

Engineering- Electrical and Computer Engineering

DESIRED FIELD OF (STUDENT) STUDY

Electrical Engineering, Material Science, Applied Physics

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

NUMBER OF INTERNSHIP POSITIONS

1

INTERNSHIP START DATE

July 4

INTERNSHIP END DATE

3 months after start date

ARE THE DATES FLEXIBLE?

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

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
University of Alberta International
intern@ualberta.ca