# Lab for Fuel Cell and Green Energy

## Location

ERC 3023 & 3003

## Management

Director:

* Xianguo Li ([xianguo.li@uwaterloo.ca](mailto:xianguo.li@uwaterloo.ca); x36843)

Tour operator:

* Aaron Pereira ([a4pereira@uwaterloo.ca](mailto:a4pereira@uwaterloo.ca); x38719)

## Users

* Prof. Li's graduate students (mechanical engineering)
* Post-Docs (mechanical/chemical engineering)
* Undergraduate students from fuel-cell course (under heavy supervision)
* Visiting Scholars
* Exchange students

## Research

* Green Energy As a Whole
* PEM Fuel Cell
* Lithium Ion Batteries
* Bio Diesel for Automotive Purpose
* Gasoline for Automotive Purpose
* Fuel Cell for Automotive Purpose

## Lab Capability

* Materials Integration
* Materials Characterization
* Device Testing
* Process Development
* Circuit Design & Fabrication
* Prototype

## Selected Projects

* GAPT (green auto powered train)
* Auto 21

## Equipment

* Bio Deisel High Pressure Fuel Injection System
* 3 Axis Computer Contolled Spray Apparatus
* Diffusion Measurement System
* Standard Porosimeter 3.1
* High Speed Visualization
* G20 Fuel Test Cell Station
* Midsize Fuel Test Cell Station
* Environment Chamber
* Stack Fuel Test Cell Station
* Through Plane Thermal Conductivity Measurements

## Supporting Partners

* ORF
* NSERC
* CFI?
* GAPT
* Auto 21?

## Access Rights

* Access restricted to Prof. Li's Group
* **Industry Contracts**
  + Will not operate lab equipment
  + Measurement testing: hire lab personnel
  + Fees will vary
* **Process**
  + Contact Prof. Li for project details and cost