

University of Waterloo – Fuel Cell Related Activities

Name	Interests
Faculty	
Michael Fowler Chemical Engineering DWE 2507 519-888-4567 Ext 3415 mfowler@uwaterloo.ca	<ul style="list-style-type: none"> • Reliability and Maintenance considerations of Fuel Cells • PEM Fuel Cell Polymeric Materials and Material degradation • Design of PEM Cells , membrane electrode assemblies (MEAs) • Empirical Models of PEM cells, specifically degradation modelling. • Fuel Cell System Analysis • Construction of 'Seal-less' PEM Externally Manifoldded Stack (maybe with a high temperature (PBI?) membrane)
Xianguo Li Mechanical Engineering CPH 34711 Ext 6843 xgli@uwaterloo.ca	<ul style="list-style-type: none"> • Experimental investigation of PEM fuel cells • Fundamental and CFD modelling of PEM fuel cells • CO contamination in PEM, and transient modelling • The design of bipolar plate and cooling plates including flow distribution fields and alternative materials for these plates (in conjunction with manufacturing consideration) • The design and optimization of PEM stack
Eric Croiset Chemical Engineering DWE 2513E Ext 6472 ecroiset@uwaterloo.ca	<ul style="list-style-type: none"> • SOFC modelling • System modelling of SOFC Systems for CO₂ • Hydrogen generation from ethanol • MCFC for CO₂ purification
Steve Corbin Mechanical Engineering scorbin@mecheng1.uwaterloo.ca' ext. 6132	<ul style="list-style-type: none"> • SOFC electrode and cell fabrication (working with FCT) • Interconnect development and stack fabrication.
Roydon Fraser Mechanical Engineering rafraser@mecheng1.uwaterloo.ca'	<ul style="list-style-type: none"> • Fuels Cell for Transportation Application • Alternative Transportation fuel use and storage • Application of Fuel Cells (i.e. practical demonstration projects such as installation in demonstration vehicles)
Fuel Cell Graduate Students	
Rapepong Suwanwarangkul Chemical Engineering DWE 2524B Ext 3824 rsuwanwa@engmail.uwaterloo.ca	PhD Candidate - Fundamental SOFC Modelling in FEMLAB
Ryan Clemmer , Mechanical Engineering rmclemme@engmail.uwaterloo.ca	PhD Candidate - SOFC materials and cell development
Jeff Baschuk , Mechanical Engineering jjbaschu@engmail.uwaterloo.ca	PhD Candidate - Fundamental PEM Modelling
Sumit Kundu , Chemical Engineering S2kundu@engmail.uwaterloo.ca	Masters Student - Life Testing of PEM - Materials analysis of PEM Materials
Kwok Wai Chan , Chemical Engineering kw4chan@hotmail.com	Masters Student (to start in April 2003) - Life Testing/modeling of PEM
I. Sabir , Mechanical Engineering isabir@engmail.uwaterloo.ca	Masters Student - Experimental measurements of PEM fuel cell performance: the effect of flow field designs and cell sizes
Aron Levitz , Mechanical Engineering alevitz@engmail.uwaterloo.ca	Masters Student - Direct Methanol Fuel Cell 2D Modelling
Wei Zang , Chemical Engineering DWE 2524B, Ext 3824 w23zhang@engmail.uwaterloo.ca	Masters Student - Hybride SOFC/Turbine System Modelling for potential CO ₂ capture

Name	Interests
	Extended Faculty Network
R.A. Varin Mechanical Engineering ravarin@engmail.uwaterloo.ca phone: (519) 888-4567 x2170	<ul style="list-style-type: none"> • Nanostructured and Amorphous Materials for Hydrogen Storage, Superconducting and Magnetic Applications • Intermetallics and Advanced Composites
Peter Douglas Chemical Engineering DWE 2501 Ext 2913 pdouglas@uwaterloo.ca	<ul style="list-style-type: none"> • Fuel Cell System modelling in Aspen
Mehrdad Kazerani Assistant Professor Dept. of E&CE Ext. 3737 Email: M.Kazerani@ece.uwaterloo.ca	<ul style="list-style-type: none"> • Power Electronics • dc / ac power conversion
L. Simon Chemical Engineering DWE Ext lsimon@uwaterloo.ca	<ul style="list-style-type: none"> • Nano-materials in Fuel Cell MEAs and plates • Characterization of polymeric materials for fuel cells • PBI membrane materials
FTT Ng Chemical Engineering DWE2521 Ext 3979 ftng@uwaterloo.ca	<ul style="list-style-type: none"> • Sulphur Removal • Reforming of Hydrocarbons for Hydrogen • Catalyst development of Fuel Cells
Gary Rempel Chemical Engineering DWE 2535C Ext 2702 grempel@uwaterloo.ca	<ul style="list-style-type: none"> • PBI membrane materials for fuel cells
Mark Pritzker Chemical Engineering DWE 2512 Ext 2542 pritzker@uwaterloo.ca	<ul style="list-style-type: none"> • Electrochemical plating for electrolyser plates
Dr. Linda Nazar Chemistry 519-888-4567 ext. 4637 lnazar@uwaterloo.ca	<ul style="list-style-type: none"> • Advanced materials for electrochemical galvanic cells
Magdy Salama Electrical Engineering	<ul style="list-style-type: none"> • Distributed Power Generation