



Canadian Biomaterials Society
Soci t  Canadienne des Biomat riaux

QUEBEC CITY STUDENT CHAPTER
CHAPITRE  TUDIANT DE QU BEC

est heureux de vous inviter   l' v nement suivant:

« Microscopie STEM   30 keV pour avancer la recherche en nanomat riaux et en biomat riaux »

Raynald Gauvin, Prof., PhD.

Professeur de recherche, D partement
de G nie de Mat riaux, Laboratoire sur la
microscopie  lectronique

Universit  McGill

Vendredi 22 octobre 2021

15h00 – 16h30 EDT

Universit  Laval, salle VCH- 2870



 v nement hybride

Via Zoom : <https://zoom.us/j/98753394601?pwd=VXpEZkhTaEdhTFFDR1V1V2h3bVArZz09>

ID de r union : 987 5339 4601; Code secret : 039965

En pr sentiel: La capacit  maximale est **45 personnes** (premier arriv , premier servi). Le passeport vaccinal est obligatoire et le port du masque est exig  en tout temps, ainsi que de laisser une si ge libre entre deux places.



UNIVERSIT 
LAVAL



**Quebec
Chapter**

The Materials
Information Society





Canadian Biomaterials Society
Soci t  Canadienne des Biomat riaux

QUEBEC CITY STUDENT CHAPTER
CHAPITRE  TUDIANT DE QU BEC

Is pleased to invite you to the following event:

« Scanning Transmission Electron Microscopy (STEM) at 30 keV to advance research in nanomaterials and biomaterials »

Raynald Gauvin, Prof., PhD.

Research Professor, Materials Engineering
Department, Electron Microscopy
Laboratory

McGill University

Friday, October 22, 2021
15h00 – 16h30 EDT

Laval University, room VCH- 2870



Hybrid event

Via Zoom: <https://zoom.us/j/98753394601?pwd=VXpEZkhTaEdhTFFDR1V1V2h3bVArZz09>

ID de r union : 987 5339 4601; Code secret : 039965

Presential: Maximum capacity: **45 persons** (first come, first served). Proof of vaccination required, wearing mask all time, seating policy: at least one of distance.



UNIVERSIT 
LAVAL



Quebec
Chapter

The Materials
Information Society



Raynald Gauvin, PhD.

McGill University, Electron Microscopy Laboratory

Summary:

Nowadays it is possible to make STEM analyzes at 30 keV can provide useful data regarding the sample chemistry and microstructure at nano and even atomic scale. Moreover, nano-diffraction and STEM coupled with electron energy loss spectroscopy (EELS) it is possible to characterize morphology, detecting different elements, diffraction patterns and different valence state. This seminar presents the advantages of these techniques on nano and biomaterials and discusses the detection of Lithium by X-ray and EELS.

Biography:

Professor Raynald Gauvin obtained his doctorate in 1990 from École Polytechnique de Montréal in Metallurgical Engineering. Then, he got an assistant professor position in Mechanical Engineering at the University of Sherbrooke, where he became associate professor in 1995 and full professor in 1998. In 2001, he joined the Department of Mining and Materials Engineering at the McGill University, as full professor. His research interests are linked to the development of new methods to characterize material microstructure using high-resolution scanning electron microscopy with X-ray microanalysis and Monte Carlo simulations. He has over 200 articles in scientific journals and conference proceedings. He has been a guest speaker at more than 80 international scientific conferences. He has won several scientific awards, including the 31st Canadian Medal for Materials Physics in 2007 by the Metallurgical Society of the Canadian Institute of Mining, the Heinrich Prize in 1997 from the Microbeam Analysis Society of America and the President's Award of Excellence, of the School for the best doctoral thesis defended in 1990 (École Polytechnique de Montréal). Professor Gauvin was president of the Microbeam Analysis Society of America (MAS) from 2005 to 2006, president of the Microscopical Society of Canada (SMC) from 2001 to 2003 and president of the International Union of Microbeam Analysis Societies (IUMAS) from 2000 to 2005. Currently, he is president of the Inter-American Societies for Electron Microscopy (CIASEM).