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- C1. A.P. Hitchcock and C.E. Brion, *K-Shell Excitation of HCN by Electron Loss Spectroscopy*, Third Int. Conf. on Electron Spectroscopy, Melbourne, August 1978, J. Electron Spectroscopy **15** (1979) 201-206.

Theses Supervised (graduating in **Chemistry**, unless otherwise specified)

- | | | |
|---------|--|-------------|
| 1986-03 | David C. Newbury (M.Sc., Chemistry) | (1983-1986) |
| | <i>Inner-shell Electron Energy Loss Spectroscopy of Cyclic Organic Molecules</i> | |
| 1990-xx | Frank Esposto (M.Sc., Chemistry) | (1988-1990) |
| | <i>EXAFS of $Pd_{40}Ni_{40}P_{20}$ Metallic Glass and Boron Doped Silicon</i> | |
| 1992-xx | Alex T. Wen (Ph.D, Chemistry) | (1988-1992) |

	<i>Core Excitation of Some Organometallic and Organosilicon Molecules</i>	
1995-xx	James T. Francis (Ph.D., Chemistry)	(1990-1995)
	<i>Dipole and Non-dipole Core Electronic Excitation Spectroscopy</i>	
1997-xx	Stephen G. Urquhart (Ph.D., Chemistry)	(1992-1997)
	<i>Core Excitation Spectroscopy of Molecules and Polymers</i>	
1996-09	Cassia Cúran Turci (Ph.D. Inorganic Chemistry ; joint with UFRJ)	(1994-1996)
	<i>Molecular Inner-shell Excitation by Electron Energy Loss Spectroscopy</i>	
1996-10	Jeff Aubry (M. Eng., Mat. Sci.)	(1994-1996)
	<i>X-ray Absorption Fine Structure Spectroscopy of Thin Film SiGe Alloys</i>	
2000-xx	I. Gabriella Eustatiu (Ph.D. Chemical Physics)	(1995-2000)
	<i>Spectroscopy and Oscillator Strengths at High Momentum Transfer</i>	
2004-12	Cynthia Morin (Ph.D., Chemistry)	(1999-2004)
	<i>Soft X-Ray Spectromicroscopy of Proteins on Patterned Polymer Films</i>	
2005-09	Hua Jiang (M.Sc, Chemistry)	(2002-2004)
	<i>Inner Shell Excitation Spectroscopy of Amino Acids and Small Peptides</i>	
2006-10	Li Li (PhD, Chemistry)	(2004-2006)
	<i>X-ray Spectromicroscopy Study of Protein Adsorption onto a chemically patterned surfaces</i>	
2008-02	Jian Wang (PhD, Chemistry)	(2002-2008)
	<i>Radiation chemistry studied by Soft X-ray microscopy</i>	
2010-04	Karen Lam (M.Sc., Chemistry)	(2007-2010)
	<i>X-Ray Magnetic Circular Dichroism of Individual Magnetosomes in Magnetotactic Bacteria by Scanning Transmission X-Ray Microscopy</i>	
2010-05	Bonnie O. Leung (Ph.D., Chemical Biology)	(2006-2010)
	<i>Protein Adsorption to Polymer Blend Films</i>	
2010-12	Jian (Jeffrey) Li (co-supervised with H. Stöver) (PhD)	(2005-2010)
	<i>Synthesis, Characterization and Modification of Microcapsules</i>	
2011-05	Ebrahim Najafi (PhD, Chemistry & Chemical Biology)	(2006-2011)
	<i>X-Ray and Electron Spectromicroscopy of Carbon Nanotube Systems</i>	(2006-2011)
2012-08	Adam F.G. Leontowich (PhD, Chemistry & Chemical Biology)	(2008-2012)
	<i>Tunable soft X-rays for patterning and lithography</i>	
2012-09	Samanbir Kalarai (MSc., Chemistry & Chemical Biology)	(2010-2012)
	<i>Scanning Transmission X-ray Microscopy of Magnetotactic Bacteria</i>	
2016-06	Jonathan D. West (MSc, Chemistry & Chemical Biology)	(2014-2016)
	<i>Scanning Transmission X-Ray and Fluorescence Microscopy of Lipid Bilayers</i>	
2016-10	Xiaohui Zhu (PhD, Chemistry & Chemical Biology)	(2012-2016)
	<i>Studies of Magnetotactic Bacteria by Soft X-Ray Microscopy</i>	
2017-07	Vinod Prabu (MSc, Chemistry & Chemical Biology)	(2015-2017)
	<i>In-situ Electrochemical Scanning Transmission X-ray Microscopy (STXM)</i>	
2018-08	Lis Guimarães de Azeredo Melo (PhD, Chemistry & Chemical Biology)	(2014-2018)
	<i>Soft X-Ray Spectromicroscopy of Radiation Damaged Perfluorosulfonic Acid</i>	
2018-08	Zhejia (Blossom) Yan (PhD, Chem. & Chem. Biology) (G. Goward main sup)	(2014-2018)
	<i>A Spectroscopic Study of Polymer Electrolyte Membranes</i>	
2018-09	Lucas Le Nagard (MSc. Physics; co-supervised by Cecile Fradin)	(2016-2018)
	<i>Formation and Positioning of the Magnetosome Chain in Magnetospirillum Magneticum AMB-1</i>	
2018-09	Juan Wu (PhD, Materials Science and Engineering)	(2013-2018)
	<i>Nano-scale 4D mapping by Scanning Transmission X-ray Microscopy</i>	

D. Presentations at MeetingsD.1 Invited

- 145 A.P. Hitchcock, *In-situ and operando studies with soft x-ray transmission spectro-microscopy*, PacifiChem 2020, Honolulu, Dec **2020**.
- 144 [A.P. Hitchcock](#), H.Yuan, L.G.A. Melo and N. Bassim, *Soft X-ray scanning transmission microscopy studies of radiation damage by electron, ion and X-ray beams*, Microscopy & Microanalysis (Milwaukee, Aug, **2020**) (presented virtually)
- 143 A.P.Hitchcock, *Soft X-ray Spectromicroscopy in Scanning Transmission X-ray Microscopes*, EXAFS on line seminar series, ZOOM, March 26, **2020**
- 142 A.P. Hitchcock, *Advanced Materials Analysis by Synchrotron-based Soft X-ray Microscopy*, ICFUTURE2020 Conference, Oulu, Finland 8-10 January **2020**
- 141 [A.P. Hitchcock](#), P. Krüger, C. Bittencourt, G.D.W. Swerhone and J.R. Lawrence, *Spatially resolved soft X-ray spectroscopy in scanning X-ray microscopes*, Microscopy & Microanalysis, Portland, OR, Aug 4-8, **2019**
- 140 A.P. Hitchcock, *Nanoscale materials analysis by soft X-ray Scanning Transmission Microscopy*, LNLS Users Meeting, Campinas, Brazil, Nov 6-9, **2018**
- 139 A.P. Hitchcock, *Spatially resolved X-ray absorption spectroscopy of functional materials measured using soft X-ray scanning X-ray microscopy*, Trends in Advanced Spectroscopy in Materials Science, Hiroshima, Japan 4-6 Oct **2018**
- 138 A.P. Hitchcock, *Soft X-ray scanning transmission X-ray microscopy – fuel cell and magnetotactic bacteria applications*, International Microscopy Congress, Sydney, AU, 9-14 Sep **2018** ([keynote talk](#))
- 137 A.P. Hitchcock, X. Wang and K. Grandfield, *Correlative Spectromicroscopy and Tomography Involving Soft X-ray Methods*, Microscopy and Microanalysis 2018, Baltimore, MD, Aug 5-9, **2018**
- 136 A.P. Hitchcock, J. Wu, X. Zhu, L.G.A. Melo, V. Berejnov, D. Susac and J. Stumper, *Soft X-ray Spectromicroscopy: new techniques and applications to fuel cell materials*, 5th International Congress on Microscopy and Spectroscopy , Oludeniz, Turkey, Apr 24-30, **2018**
- 135 A.P. Hitchcock, *Inner Shell Excitation Spectroscopy & Spectromicroscopy – Scientific and other Adventures with Eckart Rühl*, FU Berlin, April 18, **2018**
- 134 A.P. Hitchcock, *Nanoscale materials analysis by soft X-ray Scanning Transmission Microscopy*, Annual meeting of Taiwan Physical Society, symposium on -based Microscopy and Micro-Analysis, Taipei, Taiwan, 25 Jan **2018**.
- 133 A. P. Hitchcock, [J. Wu](#), [L.Melo](#), V. Berejnov, D. Susac and J. Stumper, *2D and 3D imaging and quantitative chemical mapping of ionomer in PEM-FC catalyst layers by Scanning Transmission X-Ray Microscopy*, DoE Workshop on Fuel Cells, Argonne National Lab, 3 May **2017**.
- 132 A. P. Hitchcock, [J. Wu](#), V. Lee, N. Appathurai, T. Tyliczszak, H.-W. Shiu, D. Shapiro, V. Berejnov, D. Susac and J. Stumper, *Progress in soft X-ray Microscopy Characterization of PEM Fuel Cell Catalyst Layers*, Microscopy and Microanalysis, Columbus, OH, July 24-28, **2016**
- 131 A.P. Hitchcock, X.H. Zhu, D.A. Shapiro and T. Tyliczszak, *Nanoscale chemical imaging by soft X-ray spectro-microscopy and spectro-ptychography*, symposium on Novel trends in synchrotron & FEL-based Analysis, AVS 2015 (San Jose, October 18-23, **2015**)
- 130 A.P. Hitchcock, J.Wu, L.G.A. Melo, N. Appathurai, Z. Yan, G. Goward, V. Berejnov, D. Susac and J. Stumper, *Spectroscopy and spectromicroscopy studies of polymer-electrolyte membrane fuel cell materials and devices*, 2015 International Conference on Electronic Spectroscopy and Structure (ICESS15), Stony Brook, Sep 27-Oct 02, **2015**.

- 129 A.P. Hitchcock, S.M. Rosendahl, Z. Qin, V. Lee and V. Berejnov, *In situ studies with soft x-ray scanning transmission x-ray microscopy*, Microscopical Society of Canada Annual Meeting, Hamilton, Canada, May 26-29, **2015**.
- 128 A.P. Hitchcock, *Present capabilities and future opportunities for materials science by soft x-ray spectro-microscopy and spectro-ptychography*, Workshop on Materials Science with Synchrotron Radiation, CLS Annual Users Meeting, Saskatoon, May **2015**
- 127 A.P. Hitchcock, *Imaging and quantitative chemical mapping of PEM-FC catalyst layers by Scanning Transmission X-Ray Microscopy*, 227th Electrochemical Society meeting, Chicago, Apr **2015**.
- 126 A.P. Hitchcock, *Nanoscale characterization of polymers by soft X-ray spectromicroscopy*, 29th APS Spring meeting, Denver, Co, Mar **2015**.
- 125 A.P. Hitchcock, V. Lee, V. Berejnov, D. Susac and J. Stumper, *Characterizing Automotive Fuel Cell Materials By Soft X-Ray Scanning Transmission X-Ray Microscopy*, International Conference on X-ray Microscopy (XRM2014), Melbourne, Australia, Oct, **2014**
- 124 A.P. Hitchcock, *Chemically selective spectromicroscopy by soft x-ray scanning transmission x-ray microscopy*, International Microscopy Congress 2014, Prague, Czech Republic, Sep 7-12 **2014**
- 123 A. P. Hitchcock, V. Berejnov, V. Lee, D. Susac and J. Stumper, *In situ methods for analysis of polymer electrolyte membrane fuel cell materials by soft X-ray scanning transmission x-ray microscopy*, Microscopy & Microanalysis 2014, Hartford, CT, Aug **2014**.
- 122 A.P. Hitchcock, V. Lee, V. Berejnov, D. Susac and J. Stumper, *Characterizing fuel cell materials by soft x-ray Scanning Transmission X-ray Microscopy*, Chemical Society of Canada, Vancouver, 1-5 Jun **2014**
- 121 A.P. Hitchcock, *Soft x-ray spectromicroscopy at the CLS*, Louis Delbaere Plenary Lecture, CLS Annual Users' Meeting, Saskatoon, SK, 2 May **2014**.
- 120 A.P. Hitchcock, *Soft x-ray S(T)XM – present capabilities and future trends*, Max-4, Lund, Sweden, 13 Dec **2013**
- 119 A.P. Hitchcock, *A comprehensive overview of STXM*, Workshop on STXM, Umea, Sweden, 10,11 Dec **2013**.
- 118 A.P. Hitchcock, *Materials analysis by soft x-ray scanning transmission x-ray microscopy*, “Optical and X-ray Imaging Techniques for Material Characterization” symposium, Materials Science & Technology Conference (MST2013), Montreal, 27-31 Oct **2013**.
- 117 A.P. Hitchcock, M. Obst, T. Tyliczszak, S. Kalirai and D. Bazylnski, *Chemically selective imaging and spectroscopy with Scanning Transmission X-ray Microscopy*, Microscopy and Microanalysis, Indianapolis, Aug 3-7, **2013**
- 116 A.P. Hitchcock, V. Lee, V. Berejnov, D. Susac and J. Stumper, *Nanoscale characterization of water distributions in fuel cell membrane electrode assemblies measured by soft x-ray Scanning Transmission X-ray Microscopy*, In-situ electrochemistry & Soft X-ray spectroscopy for renewable energy technologies, EMPA, Dübendorf, Switzerland, 3-5 June, **2013**

115. A.P. Hitchcock, V. Berejnov, V. Lee and S. Wessel, *Analysis of polymer electrolyte membrane fuel cells by soft X-ray Scanning Transmission X-ray Microscopy*, Materials and Devices for Energy Storage and Production: Many Means to the Same End, CLS Users' Meeting workshop, Saskatoon 2 May **2013**
114. A.P. Hitchcock, *Soft x-ray scanning x-ray microscopy: current capabilities and future trends*, Australian Synchrotron Radiation User Organization, Melbourne, Australia 29, 30 Nov **2012**
113. A.P. Hitchcock, *Chemically sensitive imaging and nanoscale spectroscopy using STXM*, Soft X-Ray Spectroscopy Satellite Workshop, Australian Synchrotron, Melbourne, Australia 26, 27 Nov **2012**
112. A.P. Hitchcock, *Soft x-ray scanning x-ray microscopy: current capabilities and future trends*, 8th Joint-Symposium of Synchrotron Radiation Surface Science Research Division and Microscopic&Nano material science group, Keio University, 16 Nov **2012**
111. A.P. Hitchcock, *Soft x-ray scanning x-ray microscopy: current capabilities and future trends*, Finnish Synchrotron Radiation User Organization, Turku Finland, 22-23 Oct **2012**
110. A.P. Hitchcock, *Soft X-ray spectromicroscopy of biologically relevant interfaces*, Surface Science of Biologically Important Interfaces (SSBII), Manchester, Oct 19, **2012**
109. A.P. Hitchcock, S. Kalirai, S. Berejnov, M. Obst and T. Tyliczszak, *Recent advances in Scanning Transmission X-ray Microscopy*, Microscopy and Microanalysis, Phoenix, 29-Jul – 4 Aug **2012**
108. A.P. Hitchcock, *Chemically sensitive imaging of environmental samples with synchrotron radiation*, Synchrotron Radiation International, Lyon, France (keynote) 9-13 July, **2012**
107. A.P. Hitchcock, *Chemically sensitive imaging with soft X-rays*, Gordon Conference on Multiphoton Processes, South Hadley, MA, 3-8 June, **2012**
106. A.P. Hitchcock, *Materials analysis by Scanning Transmission X-ray Microscopy (STXM) and PhotoEmission Electron Microscopy (PEEM)*, Workshop on Materials Applications of Synchrotron Radiation, University of Ottawa, April 20, **2012**
105. A.P. Hitchcock, *Applications of scanning soft X-ray microscopy to environmental sciences*, Workshop on Synchrotron Environmental Studies, Pacific Northwestern National Lab, Richland, WA, 20 Sep, **2011**
104. A.P. Hitchcock, Need for chemically sensitive imaging with ultra-high resolution: current STXM capabilities and opportunities for resonant ptychography, COSMIC workshop, ALS, LBNL, 2-3 Aug **2011**
103. A.P. Hitchcock, Scanning Transmission X-ray Microscopy at CLS 10ID1, CLS Annual Users Meeting, 25 June **2011**
102. A.P. Hitchcock, *Scanning transmission X-ray microscopy of soft materials*, Plenary invited lecture at the Annual Users' Meeting of LNLS, Campinas, Brazil, 22 Feb **2011**.
101. A.P. Hitchcock, K.P. Lam, S. Kalirai, K. Harding, V. Svytlik, Y. Mozharivskiy and J. Wang, *Nanoscale magnetism studied by x-ray magnetic circular dichroism in a scanning transmission X-ray microscope*, PacifiChem 2010, Honolulu, HI, Dec 15-20, **2010**
100. A.P. Hitchcock, T. Tyliczszak, M. Obst, Y.S. Lu and J. Wang, *Low energy X-ray fluorescence as a detection channel in soft X-ray STXM*, Workshop on 'Fluorescence detection in Scanning X-ray Microscopy', workshop at ALS Users Meeting, Oct 16 **2010**
99. B.O. Leung, A.P. Hitchcock, J.L. Brash, A. Scholl and A. Doran, *Applications of PEEM to biomaterials research*, workshop on "X-Ray Spectromicroscopy and Photoemission Electron Microscopy (PEEM)" at ALS Users Meeting, Oct 14 **2010**
98. A.P. Hitchcock, J. Wang and M. Obst, *3-d chemical imaging with STXM spectro-tomography*, Microscopy & Microanalysis 2010, Portland, OR, July 31 – Aug 6, **2010**
97. A.P. Hitchcock, *Chemical imaging at 30 nm spatial resolution in 2-d and 3-d with Scanning Transmission X-ray Microscopy*, Canadian Association of Physicists, Toronto, Jun 7-11, **2010**
96. A.P. Hitchcock and D. Bessarabov, *Chemical mapping of fuel cell membrane electrode assemblies by soft X-ray spectromicroscopy*, Symposium: Diagnostics and Characterization of

- Energy Materials with Synchrotron and Neutron Radiation, MRS Spring meeting. San Francisco, April 5-9, **2010**
95. A.P. Hitchcock, *Synchrotron Soft X-ray spectromicroscopy – performance and application*, McMaster Imaging Workshop, 26 March **2010**
94. A.P. Hitchcock and E. Najafi, *Chemical characterization of nanomaterials with scanning transmission X-ray microscopy*, 4th Trinational Workshop on Standards for Nanotechnology, Ottawa, ON, Canada 3,4 Feb **2010**
93. A.P. Hitchcock and D. Bessarabov, *Chemical mapping of fuel cell membrane electrode assemblies with 30 nm spatial resolution by soft X-ray spectromicroscopy*, Canada - US MEA Fuel Cell Modeling and Characterization Workshop, NRC-IFCI, Vancouver, BC Nov. 12 & 13 **2009**
92. A.P. Hitchcock and D. Bessarabov, *Studies of fuel cell membrane electrode assemblies by soft X-ray scanning transmission microscopy (STXM)*, Workshop on Soft X-Ray Spectroscopy in Renewable Energy Generation and Storage Materials, ALS Users' Meeting, 16-18 Oct **2009**
91. A.P. Hitchcock, *Chemical analysis of polymers using soft X-ray spectromicroscopy*, Chemical Society of Canada Annual Meeting, May 30 - 3 Jun **2009**, Hamilton, Canada
90. A.P. Hitchcock, M. Obst, J. Wang, J. Li, K. Lam and E. Najafi, *NEXAFS microscopy of soft materials – comparison to TEM-EELS EDGE* 2009, Banff, Canada, 18-22 May **2009**
89. A.P. Hitchcock, *Chemical analysis of polymers using Soft X-ray spectromicroscopy – comparisons to analytical TEM*, CCEM Workshop, McMaster, 27 March **2009**.
88. A.P. Hitchcock, *Soft X-ray spectromicroscopy of biomolecules at polymer surfaces*, 36th Conference on the Physics and Chemistry of Surfaces and Interfaces, Santa Barbara, CA 11-15 Jan **2009**.
87. A.P. Hitchcock, *Scanning Transmission X-ray Microscopy of multi-walled carbon nanotubes*, Workshop on Analysis of Nanomaterials, in conjunction with Annual Molecular Foundry and ALS Users Meetings, Berkeley, CA, 13,14 Oct **2008**
86. A.P. Hitchcock, B.O. Leung, J.L. Brash, R. Cornelius, A. Scholl and A. Doran, *Soft X-ray spectromicroscopy of protein and peptide interactions with polymer surfaces*, AVS-55 Boston October 19-24, **2008**
85. A.P. Hitchcock, G.A. Johansson, D. Hernández Cruz, E. Najafi, J. Li and H. Stöver, *Quantitative chemistry and orientation of polymers in 2-d and 3-d by scanning transmission X-ray microscopy*, European Microscopy Congress, Aachen, Sep 1-5, **2008**
84. A.P. Hitchcock, *Chemical imaging with scanning transmission X-ray microscopy (STXM)*, Chemical Imaging Symposium at the American Chemical Sciences national meeting, Philadelphia Aug 17-21, **2008**
83. A.P. Hitchcock, J.J. Dynes, M. Obst, J.R. Lawrence and G.G. Leppard, *Geomicrobiology with soft X-ray scanning transmission microscopy*, Goldschmidt 2008, Vancouver, July 13-18, **2008**.
82. A.P. Hitchcock, T. Tylliszczak, D. Hernández Cruz, G.A. Johansson, J. Stewart-Ornstein, M. Obst, D. Bertwistle, Ch. Karunakaran and K.V. Kaznatcheev, *Soft X-ray scanning transmission X-ray microscopy: reaching beyond the state-of-the-art*, Synchrotron Radiation Instrumentation, Mechanical Design for Synchrotron Radiation Instrumentation, and CLS Annual Users' Meeting, Saskatoon, Jun 10-14, **2008**
81. James J. Dynes and Adam P. Hitchcock, *Soft X-ray Spectromicroscopy – Correlations with Laser Scanning and Transmission Electron Microscopies*, Workshop on correlative techniques, Synchrotron Radiation Instrumentation, Mechanical Design for Synchrotron Radiation Instrumentation, and CLS Annual Users' Meeting, Saskatoon, Jun 10-14, **2008**
80. A.P. Hitchcock, *Radiation Chemistry and Chemically Selective Patterning by Scanning Transmission X-ray Microscopy*, 12th Hiroshima International Symposium on Synchrotron Radiation, Hiroshima, Mar 13,14, **2008**
79. A.P. Hitchcock and G.A. Johansson, *3-d chemical imaging using angle-scan tomography in soft X-ray scanning transmission X-ray microscopes: Current capabilities, challenges and*

- opportunities*, Hyperspectral Imaging II Workshop , National Institute of Standards and Technology in Gaithersburg, MD, October 23-26, **2007**
78. A.P. Hitchcock and G.A. Johansson, *3-d chemical imaging using angle-scan tomography in soft X-ray scanning transmission X-ray microscopes* Workshop on Hard and Soft X-ray Tomography, ALS Users Meeting, Oct 5, **2007**
77. A.P. Hitchcock, *X-ray microscopy of natural and synthetic polymers*, lecture at the 1st Croatian Synchrotron Radiation Summer School, 3-7 September **2007**, Rijeka, Croatia
76. A.P. Hitchcock, *NEXAFS Spectroscopy*, lecture at the 1st Croatian Synchrotron Radiation Summer School, 3-7 September **2007**, Rijeka, Croatia
75. A.P. Hitchcock, G.A. Johansson, G.E. Mitchell, M. Keefe and T. Tyliczak, *3-d chemical imaging using angle-scan tomography in a soft X-ray scanning transmission X-ray microscope*, 15th Int. Conf. Vac. Ultraviolet Physics, Berlin, 29 Jul – 3 Aug, **2007**.
74. A.P. Hitchcock, *Materials Analysis using synchrotron spectroscopy techniques*, 5th Annual BIMR Advanced Materials Workshop McMaster University, 19 June **2007**
73. A.P. Hitchcock, J.J. Dynes, G.A. Johansson, J. Wang and G.A. Botton, *Comparison of TEM-EELS and NEXAFS microscopy for studies of soft matter*, Microscopical Society of Canada annual meeting, Edmonton, June 12-15, **2007** (plenary)
72. A.P. Hitchcock, D. Hernández-Cruz, J.J. Dynes, M.-E. Rousseau and M. Pézolet, *Chemical Imaging by Soft X-ray Scanning Transmission X-ray Microscopy*, Microscopy and Microanalysis 2006, Chicago July 30-Aug 3, **2006**.
71. A.P. Hitchcock, *Environmental science with scanning transmission X-ray microscopy*, Symposium on Microbial Habitat: Evolution, Structure and Distribution in Soils, in 18th World Congress of Soil Science, Philadelphia, July 9-15, **2006**.
70. A.P. Hitchcock, *Soft X-ray spectromicroscopy*, Frontiers in Microscopy Workshop, Jackson Laboratory, Bar Harbor, Maine July 5-8, **2006**.
69. A.P. Hitchcock, J.J. Dynes, D.R. Korber, G.G. Leppard and J. R. Lawrence. *Synchrotron-based soft X-ray spectromicroscopy of biofilms*. 3rd Northern Lights Summer Conference, U. Saskatchewan Saskatoon, SK 14 – 18 June, **2006**
68. A.P. Hitchcock, *Soft X-ray spectromicroscopy of soft materials*, PacifiChem 2005, Honolulu 14-18 Dec **2005**.
67. A.P. Hitchcock, X. Zhang and D. Guay, *STXM studies of wet electrochemical systems under potential control*, Novel Approaches to Soft X-ray Spectroscopy: Scanning Transmission X-ray Microscopy and Ambient Pressure X-ray Photoelectron Spectroscopy, ALS Users Meeting, Oct. 20, **2005**
66. A.P. Hitchcock, *Materials analysis by soft X-ray spectromicroscopy*, 51st ICASS, Quebec, 9-13 Oct **2005**
65. A.P. Hitchcock, X. Zhang and D. Guay, *in situ STXM: studies of wet electrochemical systems under potential control*, X-ray Microscopy 2005, Himeji, Japan, July 26-30, **2005**
64. A.P. Hitchcock, *Quantitative mapping of composition and orientation using scanning transmission X-ray microscopy*, ISSP International Symposium: "Advanced Bio-Science Opened by Third Generation Soft X-ray Synchrotron Radiation", U. Tokyo, 25 July **2005**
63. Adam P. Hitchcock, Harald Stöver, Ron Childs, Li Li, James J. Dynes and John R. Lawrence, *Quantitative chemical mapping of polymer and biological samples using synchrotron soft x-ray spectromicroscopy*, Microscopical Society of Canada, 32nd Annual Meeting, Hamilton, ON 18-20 May **2005**.
62. A.P. Hitchcock, *Materials analysis by core excitation spectroscopy in a scanning transmission X-ray microscope*, Workshop on Electron Energy Loss Spectroscopy, Grundlesee May 1-5, **2005**
61. A.P. Hitchcock, *Soft X-ray spectromicroscopy: a powerful synchrotron tool for nanoscale chemical analysis*, Australian Synchrotron workshop, Adelaide, Australia, 2 Dec **2004**.
60. A.P. Hitchcock, *Polymer Microstructure Optimization aided by Scanning Transmission X-ray Microscopy*, 27th Australasian Polymer symposium, Adelaide, Australia, 1-3 Dec **2004**.

59. A.P. Hitchcock, C. Morin, L. Li, J. Brash, A. Scholl and A. Doran, *Methods and Examples of Quantitative Chemical Mapping using Synchrotron Soft X-ray Spectromicroscopy*, Microscopy and Microanalysis 2004, Savannah, GA, Aug 1-4, **2004**
58. A.P. Hitchcock, *Soft X-ray Spectromicroscopy of Biological and Synthetic Polymer Systems*, plenary lecture in 14th International Conference on Vacuum Ultraviolet Radiation Physics, Cairns, Australia, July 26-31, **2004**
57. A.P. Hitchcock, *Soft X-ray spectromicroscopy: current capabilities and future prospects*, Keynote talk at Australian Synchrotron Radiation Project meeting, Canberra, Feb 7, **2004**
56. A.P. Hitchcock, *X-ray microscopy of Biomaterials*, in Workshop on Applications of Synchrotron Radiation to Biomaterials, Canadian Light Source Users' Meeting, November 14, **2003**
55. A.P. Hitchcock, *Studies of Protein - Polymer Interactions using Soft X-ray Microscopy* in "Synchrotron based methods for the study of bio-interfaces" Symposium at the 50th American Vacuum Society meeting, Baltimore, Nov 5, **2003**
54. A.P. Hitchcock, *Methods and examples of quantitative chemical mapping by soft X-ray spectromicroscopy*, Workshop on X-ray microscopy, ALS Users' meeting Oct 9, **2003**
53. A.P. Hitchcock, C. Morin, J. L. Brash, and S.G. Urquhart, *Selective adsorption of protein on polymer surfaces studied by soft X-ray photoemission electron microscopy*, 9th Int. Conf on Electronic Structure and Spectroscopy, Uppsala, Sweden, Jun 28-Jul 2, **2003**.
52. A.P. Hitchcock, *Studies of Protein - Biomaterial Interactions using Soft X-ray Microscopy*, Biological Surfaces and Interfaces : Euroconference on Understanding and Improving Specific Interactions, Castelveccchio Pascoli, Italy, 21 - 26 June **2003**.
51. A.P. Hitchcock, *Soft X-ray microscopy of polymers and biofilms*, X-ray Imaging and Spectromicroscopy: the Present and the Future, a workshop held in conjunction with the Stanford Synchrotron Radiation Laboratory Annual Meeting, 9 Oct **2002**.
50. A.P. Hitchcock, T. Tyliczszak, I. Koprinarov, T. Araki and C. Morin, *Soft X-ray Spectromicroscopy of Natural and Synthetic Polymers*, 7th Int. Conf. X-ray Microscopy, Grenoble, France, 28 Jul-Aug 3, **2002**.
49. A.P. Hitchcock, *Inner-shell excitation by electrons and photons: from molecules to biofilms*, Symposium on Cross-sections and Electron Momentum Distributions in honor of the career of Dr. C.E. Brion, CSC annual meeting, UBC, 4 June **2002**.
48. A.P. Hitchcock, *Analysis of Biomaterials by Soft X-ray Spectro-Microscopy*, Retirement Festschrift for John, Brash, McMaster, 31 May **2002**
47. A.P. Hitchcock, *Polymers and Biofilms*, Department of Energy Basic Energy Sciences Review of the Advanced Light Source, Feb. **2002**.
46. A.P. Hitchcock, J.R. Lawrence and G.G. Leppard, *X-ray Spectromicroscopy: Chemical Mapping Techniques Applicable to Molecular Environmental Sciences*, A. Molecular Environmental Science Workshop at ALS Users' Meeting, Berkeley, Oct **2001**
45. A.P. Hitchcock, *Soft X-ray Spectromicroscopy of polymers, biomaterials and biological systems*, Int. Conf. On Vacuum Ultraviolet Radiation Physics, Trieste, Italy, 23-29th July **2001**
44. A.P. Hitchcock, C. Morin, T. Tyliczszak, H. Ikeura Sekiguchi and I. Koprinarov, *Analysis of Soft Materials by NEXAFS Microscopy*, Chemical Society of Canada 84th annual meeting, Montreal, Canada. May 26-30, **2001**
43. A.P. Hitchcock, C. Morin, T. Tyliczszak, I. Koprinarov and H. Ikeura Sekiguchi, *Soft X-Ray Spectromicroscopy: Quantitative Chemical Analysis At High Spatial Resolution*, MRS Spring meeting 2001, San Francisco, April 18-22, **2001**
42. A.P. Hitchcock, *Soft X-ray Spectromicroscopy: Quantitative Chemical Analysis of Functional Materials at High Spatial Resolution*, Pacificchem 2000, Honolulu, 16-19 Dec **2000**
41. A.P. Hitchcock, *The Canadian Light Source: Scientific plans and industrial access*, 16th Applications of Accelerators to Research and Industry, Denton, TX Nov. 1-4, **2000**
40. A.P. Hitchcock, *Soft X-ray Spectromicroscopy of Polymers and Bio-polymer Interfaces*, XAFS XI, Ako, Japan, July 26-3, **2000**

39. A.P. Hitchcock, *Soft X-ray Research at the Canadian Light Source*, CAP 2000, York, Jun 4, **2000**.
38. A.P. Hitchcock, *X-ray spectromicroscopy of polymer surfaces and the bio-polymer interface*, Surface Canada, UWO, London, ON May 22-24, **2000**
37. A.P. Hitchcock, *Synchrotron Spectromicroscopy*, in Workshop on Biomaterials Surface Analysis for the New Millenium, 6th World Biomaterials Congress, Hawaii, 15-20 May, **2000**
36. A.P. Hitchcock, *"Etudes des Surfaces et Interfaces par Absorption Rayons-X avec Rayonnement Synchrotron"*, SIMA-2, Lyon, France 8-Dec, **1999**
35. A.P. Hitchcock, T. Tylliszczak, P. Brodersen and Z.H. Lu , *"Structure of chemically prepared passivation layers on single crystal semiconductors studied by X-ray absorption"* International Conference on the Structure of Surfaces (ICSOS), Vancouver, July 26-30, **1999**.
34. A.P. Hitchcock, T. Tylliszczak and Z.H. Lu , *"Structure of Chemically Passivated Semiconductor Surfaces Determined Using X-Ray Absorption Spectroscopy"* MRS Spring Meeting, Symposium on Compound Semiconductor Surface Passivation and Novel Device Processing, San Francisco, April 5-9, **1999**.
33. A.P. Hitchcock, *"Biological, Materials and Environmental Applications of soft X-ray Spectromicroscopy"*, NRC Workshop on Synchrotron Radiation, Steacie Institute for Molecular Science, NRC, Ottawa, Mar 18, **1999**
32. A.P. Hitchcock, T. Tylliszczak, S.G. Urquhart, H. Ade, G.E. Mitchell, E.G. Rightor, and T. Warwick, *"Polymer microanalysis using NEXAFS spectromicroscopy in a Scanning Transmission X-Ray Microscope"*, International Workshop on Spectromicroscopy, Madison, WI, Oct 23-25, **1998**
31. A.P. Hitchcock, *"Quantitative Chemical Speciation of Multi-phase Polymers Using Zone-Plate X-ray Microscopy"*, Microscopy and Microbeam Analysis, Atlanta (Jul 13, **1998**)
30. A.P. Hitchcock, *"Studies of Phase Segregation in Polymers using Soft X-ray Spectromicroscopy"*, CAP Congress, Waterloo (Jun 16, **1998**)
29. A.P. Hitchcock, *"Scientific Programme of the Canadian Light Source"* Workshop on Opportunities for Synchrotron Light: Planning the CLS, Montreal, (Apr 25, **1998**)
28. A.P. Hitchcock, *"Overview of Synchrotron Light Applications in Materials and Manufacturing"* Workshop on Opportunities for Synchrotron Light in Materials and Manufacturing: Focus on X-ray Spectromicroscopy of Polymers, Sheridan Park, (Feb 10, **1998**)
27. A.P. Hitchcock, *Electron Spectroscopy towards the new millenium: Summary of the 7th International Conference on Electron Spectroscopy*, Chiba, Japan, Sep 14, **1997**.
26. A.P. Hitchcock, *Research at the Canadian Light Source - Proposed Beam Lines and End Stations, Symposium of Chemical Applications of Synchrotron Radiation IV*, CSC-97, Chemical Society of Canada, (Windsor, Jun 1-3, **1997**)
25. A.P. Hitchcock, J. Aubry, T. Tylliszczak, Z.H. Lu, J.M. Baribeau and T.E. Jackman, *Combined Si-K and Ge-K XAFS Study of the Si-Ge bond length in $\text{Si}_x\text{Ge}_{1-x}$ single crystal alloys*. IX XAFS Int. Conf., Grenoble, Aug, **1996**.
24. *in situ X-ray absorption spectroscopy of electrode surfaces*, A.P. Hitchcock, T. Tylliszczak, S. Wu and J. Lipkowski, 79th CSC meeting, St. John's, Nfld, Jun 24, **1996**.
23. *Ionic photofragmentation studied using inner-shell excitation and ionization*, symposium on "Dynamical Studies in the Production and Reactivities of Molecular Photoions", Spring ACS meeting, New Orleans, (Mar 25-29, **1996**)
22. *Materials Analysis by X-ray Absorption Spectroscopy using Synchrotron Radiation*, Pacific Basin Chemistry conference (Dec 14-17, **1995**)
21. *Inner-shell Excitation, Relaxation and Fragmentation of Cluster Beams and Molecules*, XIX ICPEAC, Whistler, BC (Jul-26-Aug-1, **1995**)
20. *Inner-shell Excitation and Fragmentation of Molecules*, 78th CSC, Guelph, Ont (May 28-Jun-1, **1995**)

19. *Inner-shell Excitation, Relaxation and Fragmentation of Rare Gas Clusters and Organometallic Compounds*, Int. Workshop on Photoionization, San Francisco, (Oct-23-26, **1994**)
18. *X-ray Absorption Studies of Single Crystal Materials*, symposium on "Applications of Synchrotron Radiation", at Metallurgical Society meeting, Jun 18-20, **1994**.
17. *Inner-shell Excitation Studies of Surfaces by Reflection Electron Energy Loss Spectroscopy*, 10th International Surface Science Workshop, Milwaukee, Jun 2-4, **1994**
16. *Application of X-ray Absorption Spectroscopies to Semiconductor Materials Characterisation*, Symposium on Materials Research Using Synchrotron Radiation, Canadian Association of Physics, Annual Meeting (SFU, Burnaby, BC) Jun 12-14, **1993**
15. *Near Edge Spectroscopy by Electron Energy Loss: A Comparison to X-ray Absorption*, Proc. of XAFS-VII, Kobe, Japan, Aug 23-29, **1992**
14. *Inner-shell Excitation Studies of Molecules: Models for Polymers and Semiconductors*, MAX II Workshop, Lund, Sweden, May 24-26, **1992**
13. *Inner-shell Excitation of Molecules as Models for NEXAFS of Polymers and Surface Adsorbates*, NEXAFS Workshop, Swedish Crystallographic Society, Uto, Sweden, May 10-13, **1992**
12. A series of four presentations on *"Inelastic Electron Scattering and its Application to Molecular Spectroscopy"* at the Escola Latino-Americana de Fisica, Caxambu, Brazil, Aug **1991**
11. *"Molecular Inner-shell Spectroscopy by Electron Impact and Synchrotron Radiation Excitation"*, American Chemical Society 201st National meeting, Atlanta April **1991**
10. *"Core Electron Excitation of Chemisorbates by Reflection Electron Energy Loss Spectroscopy"*, EELS Workshop (satellite conf. of EMSA), Lake Tahoe, Aug. **1990**.
9. *"Inner-shell Electron Excitation of Surface Adsorbates by Electron Impact"* Surf. Science Symposium. Can. Chem. Conf. (Dalhousie, NS) July **1990**.
8. *"Inner-shell Excitation Spectroscopy of Molecules"*, Regional symposium on Chemical Physics, U. Waterloo, Nov. **1989**.
7. *"Core Excitation and Ionization of Molecules"*, July, **1989**, 9th Int. Conf. on Vacuum Ultraviolet Radiation Physics (Honolulu, Hawaii).
6. *"Inner-Shell Excitation: An Element-specific Probe of Geometric and Electronic Structure"* (Noranda Award lecture), June, **1989**, Can. Chem. Conf. (Victoria, BC)
5. *"Inner-Shell Electron Energy Loss Spectroscopy: The Atomic and Molecular Viewpoint"* March, **1988**. Aussois, France. Electron Beam Induced Spectroscopies at Very High Spatial Resolution: A Joint US-French Workshop.
4. *"Inner-Shell Excitation Spectra of Complex Free Molecules"*, in "Surface Science of Catalysis: Characterization of Catalysts by Synchrotron Radiation", April **1986**, New York. Symposium at the American Chemical Society national meeting.
3. *"Near Edge and EXAFS X-ray Absorption Spectroscopy of Inorganic and Bioinorganic Molecules"*, October **1983**, Vancouver. Symposium on Electronic Spectroscopy at UV and X-ray Energies, Canadian Spectroscopy Society Annual Meeting.
2. *"Inner-Shell Excitation by Electron Impact"*, June 18, **1981**, Bozeman, Montana. 36th NW regional meeting, American Chemical Society.
1. *"Inner-Shell Excitation of Molecules by Electron Impact"*, March 28, **1980**, New York. American Physical Society March meeting.

D.2 Contributed (or other, invited) (T# = oral presentation, P# = poster) (underlined indicates presenter)

- T396 Chunyang Zhang, Pablo Ingino, Martin Obst, Haytham Eraky, Jian Wang, Drew Higgins and Adam P. Hitchcock, *in-Situ Soft X-ray Spectromicroscopy Characterization of Electrochemical Processes*, PRiME, Electrochemical Society meeting, (Honolulu, HI, Oct 2020).
- P395 S.G. Urquhart, J. Geilhufe A.F.G. Leontowich, J. Wang, J. Dynes, R. Berg, S. Chen, C.J. Jacobsen, Q. Jin, H. Yuan and A.P. Hitchcock, *Variable temperature soft X-ray spectroscopy*,

- microscopy and tomography of polymer and biological samples*, 40th International Conference on Vacuum Ultraviolet and X-ray Physics, San Francisco, CA, USA July 1-4, **2019**
- T394 Stefan Stanescu, Adam Hitchcock and Dana Stanescu, *Origin of the low value onset potential in nanostructured hematite photoanodes*, EMRS Spring meeting, Nice, May 27-31, **2019**
- T393 Stefan Stanescu, Adam Hitchcock and Dana Stanescu, *Origin of the low value onset potential in nanostructured hematite photoanodes*, Soleil Users Meeting, 20-22 Jan, **2019**.
- T392 A.P. Hitchcock, J.Wu, X.H. Zhu, D.A. Shapiro, J.R.I. Lee, M.M. Biene³, S.A. Gammon, T.T. Li, T.F. Baumann and T. Van Buuren, *4D nanocharacterization by spectro-ptychography tomography of alumina aerogels coated with zinc oxide by atomic layer deposition*, PacSurf2018, Hawaii (Big Island) 2 – 6 Dec **2018**
- T391 D. Susac, V. Berejnov, J. Wu, A. P. Hitchcock and J. Stumper, *Structural study of proton exchange membrane fuel cell (PEM-FC) catalyst layer by scanning transmission X-ray microscopy*, Catalyst Society of South Africa (CATSA), Pretoria, SA, 11-14 Nov **2018**
- T390 L.G.A. Melo and A.P. Hitchcock, *Comparison of electron and X-ray microscopies for characterizing perfluorosulfonic acid ionomer for fuel cell applications*, International Microscopy Congress, Sydney, AU, 9-14 Sep **2018**
- P389 J. Geilhufe, A. F. G. Leontowich, J. Wang, R. Berg, C.N. Regier, D.M. Taylor, D. Beauregard, J. Swirsky, C. Karunakaran, A. P. Hitchcock and S. G. Urquhart, *Soft X-Ray Spectro-Tomographic Microscopy at Cryogenic Temperatures*, XRM18, Saskatoon, SK, 19-24 July **2018**.
- P388 J. Wang, J. Geilhufe, Y. Lu, J. Dynes, J. Zhou, R. Berg, A. F.G. Leontowich, I. Coulthard, J. Swirsky, C. Karunakaran, A.P. Hitchcock and S.G. Urquhart, *Soft X-ray Spectromicroscopy at the Canadian Light Source*, XRM18, Saskatoon, SK, 19-24 July **2018**.
- P387 M. Obst, P. Ingino, A.P. Hitchcock, V. Prabu and A. Picard, *Redox-Chemistry of Environmental Biofilms Probed on the Submicron Scale by in-situ Electrochemistry Scanning Transmission (soft) X-ray Microscopy*, XRM18, Saskatoon, SK, 19-24 July **2018**.
- T386 L.G.A. Melo and A.P. Hitchcock, *Optimizing Soft X-ray Spectromicroscopy for Fuel Cell Studies: X-ray Damage of Ionomer* XRM18, Saskatoon, SK, 19-24 July **2018**.
- P385 L. Le Nagard, X.H. Zhu, A.P. Hitchcock, D.A. Bazylinski, S. Swaraj, S. Stanescu and R. Belkhou, *How do Magnetotactic Bacteria Synthesize Magnetite ? – a Soft X-ray Spectroscopy, Spectromicroscopy and Magnetism Time Course Study*, XRM18, Saskatoon, SK, 19-24 July **2018**.
- P384 Yuya Maekawa, Carla Bittencourt, Adam Hitchcock and Peter Krüger, *X-ray absorption and linear dichroism of individual Boron Nitride nanotubes experiment and theory*, XAFS18, Krakow, Poland, July 22-27, **2018**
- T383 L. Le Nagard, X.H. Zhu, C. Fradin, S. Swaraj, S. Stanescu, R. Belkhou and A. P. Hitchcock, *Magnetotactic Bacteria Studied With Scanning Transmission X-ray Microscopy*, Soleil Users Meeting, Paris, France, Jan 18-20, **2018**
- P382 W. Zhang, L.G.A. Melo, A.P. Hitchcock and N. Bassim, *Effects of electron dose and dose rate on polyvinylidene fluoride*, 11th Ann. I FIB SEM Workshop, Hamilton, Canada, Apr30-May2, **2018**.
- T381 V. Berejnov, M.S. Saha, D. Susac, J. Stumper, M.M. West and A. P. Hitchcock, *Advances in Structural Characterization Using Soft X-ray Scanning Transmission Microscopy (STXM): Mapping and Measuring Porosity in PEM-FC Catalyst Layers*, Electrochemical Society Meeting, Washington, DC, 1-5 Oct **2017**
- T380 L.G.A. Melo, A.P. Hitchcock, J. Jankovic, D. Susac, J. Stumper and V. Berejnov, *Quantitative mapping of PFSA Ionomer in Catalyst Layers by Electron and X-ray Spectromicroscopy*, Electrochemical Society Meeting, Washington, DC, 1-5 Oct **2017**.
- T379 J. Wu, A.P. Hitchcock, M. Lerotic, D. Shapiro, V. Berejnov, D. Susac and J. Stumper, *4d Imaging of Polymer Electrolyte Membrane Fuel Cell Cathodes by Scanning X-Ray Microscopy*, Microscopy & Microanalysis, St. Louis, MO, July **2017**.

- P378 [J. Geilhufe](#), A.F.G. Leontowich, R. Berg, C. Regier, D.M. Taylor, J. Wang, J. Swirsky, C. Karunakaran, R. Peters, M. Aktary, A.P. Hitchcock and S.G. Urquhart, *A New Cryo Scanning Transmission X Ray Microscope at the Canadian Light Source*, SPIE, San Diego, Aug **2017**.
- P377 [L. Le Nagard](#), A. P. Hitchcock, C. Fradin and X.H. Zhu, *Magnetic studies of Magnetotactic Bacteria with X-ray magnetic circular dichroism and optical microscopy*, Canadian Society of Chemists, Annual Meeting, Toronto, 28 May - 01 Jun, **2017**
- P376 [X.H. Zhu](#), A. P. Hitchcock, D. A. Bazylinski, U. Lins, T. Tyliszczak and D. Shapiro, *Biomineralization of magnetotactic bacteria studied by soft X-ray STXM and ptychography*, Canadian Society of Chemists, Annual Meeting, Toronto, 28 May - 01 Jun, **2017**
- P375 [L.G.A. Melo](#) and A.P. Hitchcock, *Characterization of PFSA ionomer thin films for fuel cell applications*, Canadian Society of Chemists, Annual Meeting, Toronto, 28 May - 01 Jun, **2017**
- P374 [V. Prabu](#), A.P. Hitchcock, M. Obst, M. Reynolds and H. Hosseinkhannazer, *Development of in-situ Flow Electrochemical Scanning Transmission X-Ray Microscopy (STXM)*, Canadian Society of Chemists, Annual Meeting, Toronto, 28 May - 01 Jun, **2017**
- P373 A.F.G. Leontowich, R. Berg, C. Regier, D.M. Taylor, I. Coulthard, J. Wang, J. Swirsky, J. Geilhufe, C. Karunakaran, A.P. Hitchcock and [S.G. Urquhart](#), *Yet More Hyphens: Spectro-Tomo-Cryo-X-ray Microscopy and Other Upgrades to the Spectromicroscopy Beamline at the Canadian Light Source*, Canadian Society of Chemists, Annual Meeting, Toronto, 28 May - 01 Jun, **2017**
- [T372](#) [A.P. Hitchcock](#), [V. Prabu](#), S. M. Rosendahl, M. Reynolds and H. Hosseinkhannazer, *Electrochemically-generated nanomaterials studied by in situ flow spectro-electrochemical Scanning Transmission X-Ray Microscopy*, PacSurf 2016, Hawaii, Dec 11-15, **2016**
- T371 A. Putz, D. Susac, V. Berejnov, [J. Wu](#), A.P. Hitchcock and [J. Stumper](#), *Doing More with Less: Challenges for Catalyst Layer Design*, PRiME 2016/230th ECS Meeting, Honolulu, USA, Oct 2-7, **2016**. ([invited plenary](#))
- T370 [P. Krüger](#), X. Zhu, A. P. Hitchcock, P. Umek and C. Bittencourt, *Phase Transformations and Dichroism of Titania Nanostructures*, Japanese XAFS conference, Nagoya, Japan 4-8 Sep **2016**
- P369 [S. Swaraj](#), R. Belkhou, S. Stanescu, A. Besson, M. Rioult, C. Pampfer, A.P. Hitchcock and K. Benzerara, *Scanning Transmission X-ray Microscope at HERMES beamline: First results*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- P368 [R. Peters](#), J. Wang, L. Gutierrez-Rivera, M. Aktary, S.G. Urquhart and A.P. Hitchcock, *Zone Plate Development: Partnership Between Applied Nanotools and the Canadian Light Source*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- T367 [A.F.G. Leontowich](#), R. Berg, C. Regier, D.M. Taylor, J. Wang, J. Swirsky, C. Karunakaran, A.P. Hitchcock and S.G. Urquhart, *Scanning Soft X-Ray Microscope Optimized for Cryo-Spectro-Tomography*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- T366 [X.H. Zhu](#), P. Leão, D.A. Bazylinski, U. Lins and A. P. Hitchcock, *Biomineralization of Magnetotactic Bacteria Studied by Soft X-Ray Scanning X-Ray Microscopy*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- [P365](#) [A.P. Hitchcock](#), [J. Wu](#), X.H. Zhu, L. G. de A. Melo, D.A. Shaprio, T. Tyliszczak, V. Berejnov, D. Susac and J. Stumper, *2D and 3D Soft X-Ray Spectro-Microscopy and Spectro-Ptychography of Fuel Cell Cathodes*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- T364 [M. Lerotic](#), [J. Wu](#) and A.P. Hitchcock, *Compressed Sensing for Tomographic Reconstruction of Sparse Projection X-Ray Spectromicroscopy Data*, Int. Conf. on X-ray Microscopy, Oxford, UK, 15-19 Aug **2016**
- [T363](#) [A.P. Hitchcock](#), [X.H. Zhu](#), D.A. Bazylinski, P. Leão, U. Lins, H.-W. Shiu, T. Tyliszczak, D. Shapiro, *Spectroscopy and magnetism of magnetotactic bacteria studied by scanning soft X-ray microscopy and ptychography*, 39th Int. Conf. on Vacuum Ultraviolet and X-ray Physics, Zurich, Switzerland, 3-8 July, **2016**.
- T362 [Juan Wu](#), A.P. Hitchcock, M. Lerotic, D. Shapiro, V. Berejnov, D. Susac and J. Stumper, *4d Imaging of Polymer Electrolyte Membrane Fuel Cell Cathodes by Scanning Transmission X-Ray*

- Microscopy*, 2016 Collaborative Conference on 3D and Materials Research (CC3DMR), Incheon, Korea, 20-24 Jun 2016 ([invited](#))
- T361 [A.F.G. Leontowich](#), R. Berg, C. Regier, D.M. Taylor, J. Wang, J. Swirsky, C. Karunakaran, A.P. Hitchcock and S.G. Urquhart, *Design and Capabilities of a cryo Scanning Soft X-ray Microscope at the Canadian Light Source*, Microscopical Society of Canada Annual Meeting, Edmonton, Canada, 7-10 Jun **2016**.
- P360 [V. Prabu](#), [Z. Qin](#), A.P. Hitchcock, S. Rosendahl, J. Wang, M. Reynolds, and H. Hosseinkhannazer, *Instrumentation and Methods for In-Situ Studies of Electro-Chemical Processes by Scanning Transmission X-Ray Microscopy (STXM)*, Microscopical Society of Canada Annual Meeting, Edmonton, Canada, 7-10 Jun **2016**.
- P359 [J. Wu](#), M. Lerotic, D. Shapiro, V. Berejnov, D. Susac, J. Stumper and A.P. Hitchcock, *4d Imaging of Fuel Cell Cathodes by Scanning Transmission X-ray Microscopy Tomography* CaRPE-FC Annual Technical meeting, Vancouver, 3-4 May **2016**
- P358 [L.Melo](#), V. Berejnov, D. Susac, J. Stumper and A.P. Hitchcock, *Quantification of (i) ionomer thickness and (ii) dose-damage relationship using soft x-ray microscopy*, CaRPE-FC Annual Technical meeting, Vancouver, 3-4 May **2016**
- P357 [N. Appathurai](#), V. Lee, A.P. Hitchcock, V. Berejnov, D. Susac and J. Stumper, *In situ environmental cell for scanning transmission x-ray microscopy: aerosol salts and polymer electrolyte membrane fuel cell applications*, CLS Annual User Meeting, Saskatoon, Canada, 2-3 May **2016**
- T356 [A.P. Hitchcock](#), N. Appathurai, V. Berejnov, D. Susac and J. Stumper, *Characterizing polymer electrolyte fuel cell materials by soft x-ray scanning transmission x-ray microscopy*, PacifiChem 2015, 15-20 Honolulu, HI, USA Dec **2015**.
- T355 [X.H. Zhu](#), T. Tyliszczak, H.-W. Shiu, D. Shapiro, D.A. Bazylinski, U. Lins and A.P. Hitchcock *Biomagnetism Study of Magnetotactic Bacteria by Soft X-Ray Scanning Transmission X-Ray Microscope and Ptychography*, Application of XAFS to the Study of Magnetic Materials, satellite to XAFS-2016, Stuttgart, Aug 30 – Sep 02, **2015** ([invited](#))
- T354 [X. Zhu](#), A.P. Hitchcock, C. Bittencourt, P. Umek and P. Krüger, *Individual 1D Nanostructures Investigated by 3D-resolved Polarization Dependent X-ray Absorption Spectra*, XAFS-2016, Karlsruhe, Germany, 23-28 Aug **2015**
- T353 D. Erbahar, T. Susi, X. Rocquefelte, C. Bittencourt, M. Scardamaglia, P. Guttmann, G. Rotas, N. Tagmatarchis, X. Zhu, A.P. Hitchcock and [Chris P. Ewels](#), *Fullerenes in Space : Fullerene-Water interaction and the origins of life*, Fullerenes - Past, Present and Future: Celebrating the 30th Anniversary of Buckminster Fullerene, Royal Soc. Chemistry, London, UK, 15,16 Jul **2015**
- T352 [J.J. Dynes](#), A.F.G. Leontowich, C. Karunakaran, J. Wang, Y. Lu, T.Z. Regier, D. Bertwistle, B. Yates, A.P. Hitchcock, S. Urquhart. *Cleaning Carbon Deposited Optics on Soft X-ray Beamlines using a H₂-Ar Plasma*. 12th International Conference on Synchrotron Radiation Instrumentation, New York, NY, USA, 6-10 July **2015**.
- T351 [T. Ohgashi](#), M. Nagasaka, T. Horigome, N. Kosugi, S.M. Rosendahl and A.P. Hitchcock, *Development of In-situ Sample Cells for Scanning Transmission X-ray Microscopy*, Synchrotron Radiation International 2015 (New York, July **2015**)
- T350 [Lis G. de A. Melo](#), G.A. Botton and Adam P. Hitchcock, *Quantification of the critical dose for radiation damage to perfluorosulfonic acid membranes using soft X-ray microscopy*, Microscopy & Microanalysis Portland, July **2015**.
- T349 A. F.G. Leontowich, D.M. Taylor, C. Regier, R. Berg, G. Wright, J. Swirsky, J. Wang, C. Karunakaran, A.P. Hitchcock and [S. G. Urquhart](#), *Prospects for Surface and Interfacial Science at the Upgraded Spectromicroscopy Beamline*, Surface Canada, Saskatoon, June **2015**.
- T348 [Lis G. de A. Melo](#), G.A. Botton and Adam P. Hitchcock, *Quantification of the critical dose for radiation damage to perfluorosulfonic acid membranes using soft X-ray microscopy*, Microscopical Society of Canada Annual Meeting, Hamilton, Canada, May 26-29, **2015**.

- T347 [X.H. Zhu](#), T. Tyliczszak, H.-W. Shiu, D. Shapiro, D.A. Bazylinski, U. Lins and A.P. Hitchcock, *Biomagnetism of Magnetotactic Bacteria Studied by Soft X-Ray STXM And Ptychography* Microscopical Society of Canada Annual Meeting, Hamilton, Canada, May 26-29, **2015**.
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- T345 [A.P. Hitchcock](#), S.M. Rosendahl and N. Appathurai, *Spatially resolved spectro-electrochemistry using soft X-ray Scanning Transmission X-Ray Microscopy*, 227th Electrochemical Society meeting, Chicago, Apr **2015**.
- T344 [T. Susi](#), D. Mowbray, M.P. Ljungberg, D. Erbahar, X. Rocquefelte, C. Bittencourt, M. Scardamaglia, P. Guttmann, N. Tagmatarchis, X. Zhu, A.P. Hitchcock, C.P. Ewels and P. Ayala, *Calculating core level binding energies for graphene and azafullerenes*, International Winterschool on Electronic Properties of Novel Materials (IWEPM2015) workshop, 7-14 March **2015**, Tirol, Austria.
- T343 [E. M. Muehe](#), E. Adaktylou, M. Obst, C. Schroeder, S. Behrens, A.P. Hitchcock, T. Tyliczszak, M. Michel, U. Kraemer and A. Kappler, *Cd mobility in anoxic Fe-mineral-rich environments – potential use of Fe(III)-reducing bacteria in soil remediation*, 2014 Annual meeting of the American Geophysical Union, San Francisco, 15-19 Dec **2014**.
- P342 [A. P. Hitchcock](#), [X. Zhu](#), C. Bittencourt, P. Umek and P. Krüger, *Electronic structure of titanate nanoribbons studied by O 1s and Ti 2p X-ray absorption and 3-dimensional dichroism measured in a scanning transmission X-ray microscope (STXM)*, PacSurf2014, 7-11 Kona, Hawaii, Dec **2014**.
- T341 [A.P. Hitchcock](#), V. Lee, V. Berejnov, D. Susac and J. Stumper, *Characterizing automotive fuel cell materials by soft x-ray scanning transmission x-ray microscopy (STXM)*, PacSurf2014, 7-11 Kona, Hawaii, Dec **2014**.
- P340 [A. F. G. Leontowich](#), C. Regier, D. M. Taylor, R. Berg, K. Epp, J. Swirsky, C. Karunakaran, A. P. Hitchcock and S. G. Urquhart, *Design and installation of a cryo scanning transmission x-ray microscope at the Canadian Light Source*, International Conference on X-ray Microscopy (XRM2014), Melbourne, Australia, Oct, **2014**
- P339 [X.H. Zhu](#), [A. P. Hitchcock](#), T. Tyliczszak, D.A. Bazylinski and U. Lins, *Application of X-Ray Magnetic Circular Dichroism in Stxm to Study The Magnetic Polarities of Individual Magnetotactic Bacteria*, International Conference on X-ray Microscopy (XRM2014), Melbourne, Australia, Oct, **2014**
- P338 [X. Zhu](#), [A.P. Hitchcock](#), C. Bittencourt, P. Umek and P. Krüger, *Individual Titanium Oxide Nanostructures Studied by 3D-Resolved O 1s and Ti 2p Polarization Dependent X-Ray Absorption Spectra Measured with STXM*, International Conference on X-ray Microscopy (XRM2014), Melbourne, Australia, Oct, **2014**
- P337 [A.P. Hitchcock](#), [Z. Qin](#), S.M. Rosendahl and V. Lee, *In Situ Electrochemical Deposition Of Cu Studied With Scanning Transmission X-Ray Microscopy*, International Conference on X-ray Microscopy (XRM2014), Melbourne, Australia, Oct, **2014**
- I336 [D. Susac](#), V. Berejnov, M. Saha, V. Lee, M. West, A.P. Hitchcock and Jürgen Stumper, *Advances in Structural Characterization of PEM Fuel Cell Catalyst Layers by Soft X-ray Scanning Transmission Microscopy*, 226 ECS Conference, Cancun, Mexico, Oct, **2014** **invited**
- P335 [X. Zhu](#), A.P. Hitchcock, D.A. Shapiro, T. Tyliczszak and D.A. Bazylinski, *Spectro-ptychography study of biomagnetism using soft X-ray microscopy*, ALS Users Meeting, Berkeley, CA, 8 Oct, **2014**
- P334 [J. Wu](#), V. Lee, V. Berejnov, D. Susac, J. Stumper and A.P. Hitchcock, *3D chemical distributions in PEMFC cathodes measured by Scanning Transmission X-ray microscopy*, ALS Users Meeting, Berkeley, CA, 8 Oct, **2014**
- T333 [X. Zhu](#), A.P. Hitchcock, T. Tyliczszak, P.E. Leão, D.A. Bazylinski and U. Lins, *Characterization of the chemistry and magnetism of individual magnetotactic bacterial cells using X-ray*

- spectromicroscopy*, 4th Int. Meeting on Magnetotactic Bacteria (MTB2014) Rio de Janeiro Sep 15-18, **2014**
- T332 [P. Krüger](#), [X. Zhu](#), C. Bittencourt and A. P. Hitchcock, *X-ray absorption of individual titania nanostructures - theory and STXM Experiments*, Japanese Physical Society, Sep.7-10, **2014**.
- T331 [D. Rossouw](#), M.Bugnet, [E. Najafi](#), V. Lee, A. P. Hitchcock and G. A. Botton, *Illuminating the electronic properties of individual carbon nanotubes with photons and electrons*, International Microscopy conference (refereed abstract), Prague, Czech Republic, Sep 6-10, **2014**
- T330 [L.G.A. Melo](#), V. Lee, D. Susac, V. Berejnov, J. Stumper, G.A. Botton and A.P. Hitchcock, *Effects of Sample Preparation Technique on Quantitative Analysis of Automotive Fuel Cell Catalyst Layers*, Microscopy& Microanalysis 2014, Hartford, CT, Aug **2014**.
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- P328 [J. Wu](#), V. Lee, A.P. Hitchcock and V. Berejnov, *STXM tomography of PEM-FC, CaRPE-FC* Annual Technical meeting, Vancouver, 6 June **2014**
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- T326 [A.P. Hitchcock](#), *Imaging and Diagnostics* , Annual Technical meeting of the Catalyst Research for Polymer electrolyte Fuel Cells (CaRPE-FC) network, Vancouver, 6 June **2014**
- T325 [L.G.A. Melo](#), V. Lee, D. Susac, G.A. Botton A.P. Hitchcock, V. Berejnov and J. Stumper, *Effects of Sample Preparation Damage to Catalyst Layers in Fuel Cell Materials*, Chemical Society of Canada, Vancouver, 1-5 Jun **2014**
- P324 [Z.B. Yan](#), A.P. Hitchcock and G. Goward, *The investigation of ionomer and platinum degradation in Catalyst coated membranes for fuel cells*, Chemical Society of Canada, Vancouver, 1-5 Jun **2014**
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- P322 [A.F. G. Leontowich](#), D.M. Taylor, C. Regier, C. Karunakaran, A.P. Hitchcock. and S. G. Urquhart, *Enhanced scintillator-photomultiplier tube detector for a UHV soft x-ray microscope*, CLS Annual Users' Meeting, Saskatoon, SK, 2 May **2014**.
- T321 [J.R. Lawrence](#), G.D.W. Swerhone, J.J. Dynes, A.P Hitchcock, and D.R. Korber. *Formation of a complex organic corona on carbon nanotubes reduces toxicity by suppressing reactive oxygen species production*. SETAC North America, November 17-21, **2013**, Nashville, TN. SETAC 34th Annual Meeting.
- T320 [T. Ohigashi](#), Inagaki, Horigome, N. Masanari, N. Kosugi and A.P. Hitchcock, *Development of sample cells for STXM*, Japanese Synchrotron Research Association meeting, Nov 5, **2013**, Nagoya, Japan (in Japanese)
- T319 [Z. Qin](#), V. Lee and A.P. Hitchcock, *Quantitative chemical speciation of copper electro-deposition studied by STXM*, 224 Electrochemical Society Conference, San Francisco, Oct 27 -31 **2013**.
- T318 V. Lee, [D. Susac](#), S. Kundu, V. Berejnov, R. T. Atanasoski, A.P. Hitchcock and J. Stumper, *STXM Characterization of Nanostructured Thin Film Anode Before and After Start-up Shut-down and Reversal Tests*, 224 Electrochemical Society Conference, San Francisco, Oct 27 -31 **2013**.
- T317 [V. Lee](#), V. Berejnov, D. Susac, J. Stumper and A.P. Hitchcock, *In situ scanning transmission X-ray microscopy studies on the effects of relative humidity and temperature on MEA materials*, 224 Electrochemical Society Conference, San Francisco, Oct 27 -31 **2013**.
- T316 [X. Zhu](#), Adam Hitchcock and Dennis Bazylinski, *Application of X-ray Magnetic Circular Dichroism in a Scanning Transmission X-ray Microscope to Differentiate Biogenic and Abiogenic Magnetite*, 2013 ALS Users Meeting, Berkeley, CA Oct 7,8 **2013**.

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- P314 M.Nagasaka, H. Yuzawa, T. Horigome, Z. Qin, A.P. Hitchcock and N. Kosugi, *Electrochemical Reaction of Aqueous Iron Sulfate Solutions Studied by Fe L-Edge Soft X-Ray Absorption Spectroscopy*, 38th Int. Conf. Vac. Ultraviolet X-ray Physics, Hefei, China, 12-17 July **2013**
- P313 C. Karunakaran, J. Wang, Y. Lu, A.P. Hitchcock and S.G. Urquhart *Scientific capabilities of the spectromicroscopy facility at the Canadian Light Source*, 38th Int. Conf. Vac. Ultraviolet X-ray Physics, Hefei, China, 12-17 July **2013**
- T312 A. P. Hitchcock, X. Zhu, C. Bittencourt, P. Umek and P. Kruger, *Titanium oxide nanostructures studied by O 1s and Ti 2p X-ray absorption and dichroism measured in STXM*, 38th Int. Conf. Vac. Ultraviolet X-ray Physics, Hefei, China, 12-17 July **2013**
- T311 L.G.A. Melo, J. Huang, Z. Qin, V Lee, D. Susac, V. Berejnov, J. Stumper, A. P. Hitchcock and G.A Botton, *Nanostructural characterization of catalyst layers in PEMFC: Sample preparation considerations*, 223 Electrochemical Society Conference, Toronto, On, Canada May **2013**.
- T310 Z. Qin, V. Lee and A.P. Hitchcock, *Spatially resolved studies of copper electroplating by scanning transmission X-ray microscopy*, 223 Electrochemical Society Conference, Toronto, On, Canada May **2013**.
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- T299 A.F.G. Leontowich and A.P. Hitchcock, *Carbon contamination and the future of high volume photolithography*, SRI conference Satellite Workshop on "Carbon Contamination of Optics", Solei, Paris, France, 16-17 July, **2012**
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- P294 A.F.G. Leontowich and A.P. Hitchcock, *Secondary electron deposition mechanism of carbon contamination*, CLS Users' Meeting, Saskatoon, May 4,5, **2012**
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- T290 C. Gaillard, C. Karunakaran, B. Bouchet, J. Wang, A. Buléona, A.P. Hitchcock, *Identification d'assemblages de protéines, lipides et polysaccharides par microscopie à balayage par transmission de RX mous*, French Materials Society meeting, **2011**
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- T284 V.S. Coker, J. Byrne, J.R. Lloyd, N.D. Telling, G. van der Laan, A.P. Hitchcock and R.A.D. Pattrick, *Scanning transmission X-ray microscopy (STXM): a powerful imaging tool for the environmental sciences*, Diamond Users Meeting, 7,8 Sep **2011 (invited)**
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- P282 S. Kalirai, A.P. Hitchcock, K.P. Lam, D.A. Bazylinski, U. Lins and J. Wang, *Scanning Transmission X-ray Microscopy and X-ray Magnetic Circular Dichroism of Magnetotactic Bacteria* CLS Annual Users Meeting, Saskatoon, SK 25-Jun, **2011**
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- T276 A. Sakko, J. A. Bradley,, G. T. Seidler, M. Hakala, A. Rubio, G. Cooper, A. P. Hitchcock, K. Schlimmer, K. P. Nagle and K. Hämäläinen, *New Understanding of the Lyman-Birge-Hopfield Band of N₂*, 45th annual meeting of the Finnish Physical Society, Helsinki, Mar 29-31 **2011**
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- P11 A.P. Hitchcock, C.J.L. Lock and B. Lippert, "Pt L₃ EXAFS of Pt-base Model Compounds and [(NH₃)₂Pt(OH)₂Pt(NH₃)₂] Bound to DNA", Prog.in X-ray Studies by Synchrotron Radiation, Strasbourg, Apr. 1985
- T10 A.P. Hitchcock, D. C. Newbury and J. Stöhr, "Bond Length Determination from Near Edge Resonances", Prog. in X-ray Studies by Synchrotron Radiation, Strasbourg, Apr. 1985
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- P8. A.P. Hitchcock, D. C. Newbury, A. L. Johnson, J. L. Horsley and J. Stöhr, "Inner-Shell Spectra of Benzene, Pyridine and Cyclohexane Studied by keV Electron Impact", XIV Int. Conf. on Elec. and Atomic Coll., Stanford, Jul. 1985
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- T6. A.P. Hitchcock, "K-Shell Ionization of Molecules - Bond Lengths from Continuum Shape Resonances", Atomic and Molecular Physics Division, CAP. Fall Meeting, Waterloo, October, 1983.
- P5. C.E. Brion, S. Daviel and A.P. Hitchcock, "A New High Performance Electron Energy Loss Spectrometer for Valence and Inner Shell Molecular Electronic Spectroscopy", Int. Conf. on Physics of Electron and Atomic Collisions. Berlin, July, 1983.
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- P3. A.P. Hitchcock, "EXAFS of Pt-DNA complexes", (June 2, 1982) Chemical Institute of Canada, Toronto.

- P2. A.P. Hitchcock, *"PES Studies of Thermolysis of Oxadiazoline"*, (June 1, **1982**) Chemical Institute of Canada, Toronto.
- T1. A.P. Hitchcock and C.E. Brion, *"Fluorine K-shell Spectra of HF and F₂"* (July 16, **1980**) Gordon Conference on Electron Spectroscopy.

E. Training workshops on aXis2000 (software for processing spectromicroscopy data)

- 2007.06.15 CSC annual meeting, Edmonton, AB, Canada
- 2012.11.25 Australian synchrotron annual meeting, Melbourne, AU
- 2014.05.21 CLS annual meeting, Saskatoon, SK, Canada
- 2016.05.10 Soleil, Paris, France
- 2018.06.11 Soleil, Paris, France
- 2018.09.18 STXM-PEEM workshop, Australian synchrotron, Melbourne, AU