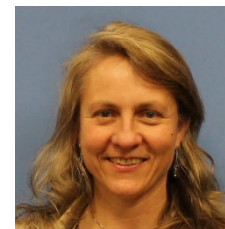


FERNANDA PEYRONEL
 1 Gibbs Cr • Guelph, ON • N1G 5B6
 Ph: 519-766-0669 • Cell: 226-500-0960
 Email: fsvaikau@uoguelph.ca

CURRICULUM VITAE

EDUCATION

- 2015 **Ph.D.** University of Guelph
 “Ultra Small Angle X-Ray Scattering Studies of Triacylglycerol Crystal Networks”
- 1996 **M.Sc. Physics**, University of Guelph
 “Irradiated Solid Hydrogen using a Fourier Transform Interferometer”
- 1990 **B.Sc. Physics** (distinction), Universidad Nacional de Rosario, Argentina
 “Nitrogen Implantation on Steel using a Pulsed Beam Accelerator”



WORK EXPERIENCE

- 2008-current **Research Associate** - Department of Food Science, University of Guelph
- 2008 **Curriculum Developer** - Spanish Language and Literature, Conestoga College, Waterloo
- 1998-2007 **Science Educator and Curriculum Developer** - Scientists in School, Upper Grand District School Board, Guelph Area
- 2005-2006 **Spanish Instructor** - Continuing Education for Adults, Conestoga College, Waterloo
- 2003-2008 **Elementary Spanish Instructor** - International Language Program, Guelph
- 1992-1998 **Teaching Assistant** - Department of Physics, University of Guelph
- 1988-1991 **High School Computer Science Teacher** - Polytechnic School, Rosario, Argentina
- 1989-1991 **Research Assistant** - Department of Physics, Rosario, Argentina
- 1986 **Summer Research Student** - Volkswagen Company, Wolfsburg, Germany

RESEARCH FUNDING

Agency	P.I.	Title	Role	Amount	Duration
OMAFRA	A. Marangoni	Novel strategies for the functional replacement of trans and saturated fats in finished food products	Researcher		June 2014-April 2017
Acriba (argentinian agronomic company)	F. Peyronel & A. Marangoni	New Refining Method for Cottonseed Oil	Industry liaison	\$3,000	July-Aug. 2012
Advanced	F. Peyronel	Determination of the	Lead Investigator	15x8 hrs	2013-2015

Photon Source, Chicago, USA	D. Pink A. Marangoni	Spatial Structure of Triglycerides – II		synchrotron access	
University of Guelph	A. Marangoni	Services to researchers	Project Management Analytical Services	~\$2,000/yr	2009 - current

LAB MANAGERIAL RESPONSABILITIES - Research Associate

2012-2016	Purchase, commission and management of all equipment under the CFI grant “Food Health and Aging for reduced health care costs”
2008-current	Personnel training
2008-current	Equipment maintenance
2008-current	Supervision of Scientists and Students
2008-current	Research Advisor

Name	Position	Origen	Duration
Marisol Cordova	PhD Visiting student	Universidad Autonoma de San Luis Potosi - Mexico	2016 (5 months)
Samuele Bovolato	MSc. Visiting student	University of Udine, Italy	2015-2016 (6 months)
Rodrigo Benvenuto	Undergrad Visiting student	Universidad de Chile	2015-2016 (6 months)
Carolin Blach	Undergrad Visiting student	University of Hohenheim, Germany	2015-2016 (6 months)
Nicole Jay	Undergrad student	University of Guelph	2015 (4 months)
Heather Petrick	USRA, undergraduate student	University of Guelph	2015 (4 months)
Fabio Valoppi	PhD Visiting student	University of Udine, Italy	2015 (6 months)
Caspar Winkelmeier	Undergrad Visiting student	University of Hohenheim, Germany	2014-2015 (6 months)
Pratham Singh	USRA, undergraduate student	University of Guelph	2013 (4 months)
Michaela Häupler	MSc. Visiting student	University of Hohenheim, Germany	2012 (5 months)
Laura Araceli López Martínez	PhD Visiting student	Universidad Autonoma de San Luis Potosi - Mexico	2012 (8 months)
Dr. J. David Pérez Martínez	Visiting Scientist	Universidad Autonoma de San Luis Potosi - Mexico	2011 (3 months)
Dan Beckerton	Summer undergraduate student	University of Guelph	2010 (4 months)
Gilda Avendaño Vasquez	MSc. Visiting student	Instituto Tecnológico de Tuxtepec, México	2010 (4 months)
Edgard Sanchez Ortigas	MSc. Visiting student	Instituto Tecnológico de Tuxtepec, México	2008 (1 month)

INDUSTRIAL COLLABORATION

- 2009-2012 Construction and integration of equipment for ultrasonic spectroscopy, VN Instruments, Elizabethtown
- 2010-current Design, build, test, and commission of an innovative instrument to measure the static dielectric permittivity for fats and oils. VN Instruments, Elizabethtown

SERVICE TO THE UNIVERSITY OF GUELPH

- 2012-2015 **High School Workshops** - "Passion for Chocolate" (3x per year, 1 hour)
- 2011-2013 **Graduate Student Guest Lecturer** - Biophysics Interdepartmental Group (1 day/year)
- 2011 **Undergraduate Instructor** - Food Chemistry I (7 lectures)
- 2009-current **X-Ray Workshop Instructor** - Food and Soft Material Lab (3x per year, 2 days)
- 2009-2010 **High School Student Mentorship** - Advanced Foods and Materials Network (2x 2 days)

SERVICE TO THE PROFESSION

- 2012-2015 **Judge of Poster Session** - Biophysics Interdepartmental Group Annual General Meeting and Symposium, University of Guelph
- 2013 **Judge of Poster Session** - Delivery of Functionality in Complex Food Systems, 5th International Symposium, Haifa, Israel
- 2010 **Senior Conference Secretary** - "Delivery of Functionality in Complex Food Systems, 4th International Symposium", University of Guelph
- 2010-2014 **Manuscript Reviewer**

Journal	2010	2011	2012	2013	2014	2015	2016
Food Res Int	1	-	1	-			
J Am Oil Chem Soc	-	1	-	1		2	1
Food Biophysics					1	1	1
Crystal Growth & Design						2	

INVITED PRESENTATIONS

- 2015 **Invited talk** - *Correlating Polymorphism with Ultra Small Angle X-ray Scattering for Static Structures of Selected Edible Fats*. Nestle Research Center, Laussane, Switzerland. June 18, 2015.
- 2015 **Invited talk** - *The meso-structure of Edible Fats as seen by Ultra Small Angle X-ray Scattering*. Technical University of Berlin. Institute of Food Technology and Food Chemistry. Berlin, Germany. July 7, 2015.
- 2003 **Seminar for Educators** - *The Scientist in School experience on how to build and implement a hands-on science program at the elementary level*. Universidad Nacional de Rosario, Argentina

PROFESSIONAL DEVELOPMENT

- 2013 “Developing a Statement of Teaching Philosophy” - Human Resources, University of Guelph
 2012 “Small-Angle Scattering Course, Beyond R_g” - Advanced Photon Source, Chicago, Illinois, USA
 2011 “Employment Opportunities and Funding Opportunities” - Advanced Foods and Materials Network, Toronto
 2010 “Collaboration and Start-up Companies” - Advanced Foods and Materials Network Seminars, Toronto
 2009 “What You Say and How You Say It” - Communication Workshop, University of Guelph
 2009 “The Whole Body Experience” - Communication Workshop, University of Guelph.
 2009 “Networking, Résumé Writing and Interview Skills” - Advanced Foods and Materials Network Seminars, Toronto
 2008 “Competent Supervisor and Due Diligence Course” - University of Guelph

PUBLICATIONS

Refereed Journal Articles

- Ramel, Pere; **Peyronel, Fernanda**; Marangoni. *Preliminary studies on the nanoscale structure of milk fat. Food Chemistry*. 23, 224–230. 2016
- Wang, Fan; **Peyronel, Fernanda**; Marangoni, Alejandro. 2016. *Phase diagram of Glycerol Monostearate and Sodium Stearoyl ILactylate. Crystal Growth & Design*. 16 (1) **297-306**
- Peyronel, Fernanda**; Campos, Rodrigo; Marangoni, Alejandro G. *Prevention of oil migration in palm mid fraction and palm olein using a stabilizer rich in behenic acid*. Food Research International. Under Review March 2016.
- Pink, David; **Peyronel, Fernanda**; Quinn, Bonnie; Singh, Pratham; Marangoni, Alejandro. *Condensation versus Diffusion. A Spatial-Scale-Independent Theory of Aggregate Structures in Edible Oils: Applications to Model Systems and Commercial Shortenings studied via Rheology and USAXS. J Physics D: Applied Physics*. 48 (38) pp 384003. 2015
- Martinez Sanchez, Cecilia; Hernandez-Santos, Betsabé; Sánchez-Ortega, Edgar; Herman-Lara, Erasmo; Rodriguez-Miranda, Jesus; Gomez-Aldapa, Carlos; **Peyronel, Fernanda**; Marangoni, Alejandro. *Physicochemical and thermal characterization of seed oil from Mexican mamey sapote*. Food Science & Nutrition, Submitted September 2015.
- Peyronel, Fernanda**; Bonnie Quinn; Marangoni, Alejandro G., Pink, David A. *Edible Fat Structures at High Solid Fat Concentrations: evidence for the existence of oil-filled nanospaces. Applied Physics Letters*. 106, 2, 023109. 2015.
- Peyronel, Fernanda**; Ilavsky, Jan; Pink, David A.; Marangoni, Alejandro G. *Quantification of the Physical Structure of Fats in 20 Minutes: Implications for Formulations. Lipid Technology*. 26, 10, 223–226. 2014
- Peyronel, Fernanda**; Pink, David A.; Marangoni, Alejandro G. *Triglyceride Nanocrystal Aggregation into Polycrystalline Colloidal Networks: Ultra-Small Angle X-ray Scattering and Computer Simulation of Models. Current Opinion in Colloid and Interface Science*. 19, 5, 459-470. 2014

Peyronel, Fernanda; Quinn, Bonnie; Marangoni, Alejandro G.; Pink, David A. *Ultra Small Angle X-Ray Scattering in Complex Mixtures of Triacylglycerols*. **Journal of Physics - Condense Matter** 26, 46 464110. 2014.

Quinn, Bonnie; **Peyronel, Fernanda**; Gordon, Tyler; Marangoni, Alejandro G.; Hanna, Charles B. ; Pink, David A. *Aggregation in Complex Triacylglycerol Oils: Coarse-Grained Models, Nanophase Separation, and Predicted X-ray Intensities*. **Journal of Physics – Condense Matter**. 26, 46 464108. 2014

Shukat, Rizwan; **Peyronel, Fernanda**; Relkin, Perla. *Spray Dried Protein Stabilised Emulsions as Vitamin Matrix Carriers: Nano- and Micro-Structural Factors Affecting Vitamin Long-Term Protection*. **Food Biophysics**. 9, 4, 389-395. 2014.

Peyronel, Fernanda; Quinn, Bonnie; Marangoni, Alejandro G.; Pink, David A. *Ultra Small Angle X-Ray Scattering for Pure Tristearin and Tripalmitin: Model Predictions and Experimental Results*. **Food Biophysics**. 9, 4, 304-313. 2014

Peyronel, Fernanda; Marangoni, Alejandro.G. *In Search of Confectionary Fat Blends Stable to Heat: Hydrogenated Palm Kernel Oil Stearin With Sorbitan Monostearate*. **Food Research International**. 55 93-102. 2014.

Razul, M. Shajahan G.; MacDougall, Colin J.; Hanna, Charles B.; Marangoni, Alejandro G.; **Peyronel, Fernanda**; Papp-Szabo, Erzsebet; Pink, David A. *Nanoscale Characteristics of Molecular Fluids in Confined Spaces: Triacylglycerols Oils*. **Food and Function**. 5, 10, 2501-2508. 2014.

Häupler Michaela; **Peyronel, Fernanda**; Neeson, Ian; Weiss, Jan; Marangoni, Alejandro G. *In situ ultrasonic characterization of cocoa butter using a chirp*. **Food and Bioprocess Technology**. 7, 11, 3186-3196. 2014.

Pink, David A.; Quinn, Bonnie; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Edible Oil Structures at Low and intermediate Concentrations: I. Modelling, Computer Simulation and Predictions for X-ray Scattering*. **Journal of Applied Physics**. 114, 234901. 2013.

Peyronel, Fernanda; Ilavsky, Jan; Mazzanti, Gianfranco; Marangoni, Alejandro G.; Pink, David A. *Edible Oil Structures at Low and Intermediate Concentrations: II. Ultra-Small Angle X- Ray Scattering of in situ Tristearin Solids in Triolein*. **Journal of Applied Physics**. 114, 234902. 2013.

MacDougall, Colin J.; Razul, M. Shajahan G.; Papp-Szabo, Erzsebet; **Peyronel, Fernanda**; Hanna, Charles B.; Marangoni, Alejandro G.; Pink, David A. *Nanoscale Characteristics of Triacylglycerol Oils: Phase Separation and Binding Energies of Two-Component Oils to Crystalline Nanoplatelets*. **Faraday Discussion**. 158, 425. 2012.

Marangoni, Alejandro G.; Acevedo, Nuria; Co, Edmund; **Peyronel, Fernanda**; Quinn, Bonnie; Maleky, Fatemeh; Mazzanti, Gianfranco; Pink, David A. *Structure and Functionality of Edible Fats*. **Soft Matter** 8: 1275- 1300. 2012.

Acevedo, Nuria; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Characterization and Engineering of the Nanoscale in Triglyceride Crystal Networks*. **Current Opinion in Colloid and Interface Science** 16: 374-383. 2011.

Refereed Book Chapters

Peyronel, Fernanda; Acevedo, Nuria C.; Pink David A.; Marangoni, Alejandro G. *Supramolecular assembly of fat crystal networks from the nanoscale to the mesoscale* in Crystallization of Lipids-from Molecules to Crystal Networks (K. Sato editor). Wiley-Blackwell. 2016

Peyronel, Fernanda; Marangoni AlejandroG.; *Physical Characterization of Fats and Oils* in Food Lipids: Chemistry, Nutrition, and Biotechnology, Fourth Edition (C. Akoh editor). CRC Press - Taylor and Francis Group. 2017

O'Sullivan, Chloe; Acevedo, Nuria; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Fat Nanostructures* in **Edible Nanostructure**. (A.G. Marangoni, D.A. Pink, Editors). Royal Society of Chemistry.2014.

Peyronel, Fernanda; Campos, Rodrigo. *Methods Used in the Study of the Physical Properties of Fats* in **Structure-Function Analysis of Edible Fats** (Marangoni, A.G. Editor). AOCS Press, Urbana, IL, 2012.

Peyronel, Fernanda; Laredo, Tamara; Marangoni, Alejandro G. *Fat: Rheological Characteristics*. **Encyclopedia of Agrophysics** (J. Glinski, J. Horabik, J, Lipiek, Editors). Springer Verlag, Dordrecht, Germany. 2011.

Peyronel, Fernanda; Acevedo, Nuria; Marangoni, Alejandro G. *Structural and Mechanical Properties of Fat*. In: **Chemical Deterioration and Physical Instability of Food and Beverages** (L. Skibsted, J. Risbo, M. Andersen, editors). Woodhead Publishing Limited, Cambridge, U.K. 2010.

Presentations at Conferences

Peyronel, Fernanda; Quinn, B.E.; Marangoni, Alejandro G; Pink, David A. Side-coated TAGwoods and the Formation of Dense Aggregates of Intertwined TAGwood Snakes. Denver X-ray. Conference. Rosemont, Illinois. August 1-5, USA. 2016

Peyronel, Fernanda; Pink, David A.; Marangoni, Alejandro G. *Which length scale is affected on sheared edible fat systems?* Annual Meeting of the American Oil Chemists' Society, Salt Lake City, Utah, USA, May 1–4, 2016

Ramel, Pere R.; **Peyronel, Fernanda**; Marangoni, Alejandro G. *The Effect of Emulsification and Emulsion Droplet Distance on the Nanoscale Structure of Milk Fat*. Annual Meeting of the American Oil Chemists' Society, Salt Lake City, Utah, USA, May 1–4, 2016

Macias-Rodriguez, Braulio; **Peyronel, Fernanda**, Marangoni, Alejandro. *Structure-function relationship of puff pastry shortenings*. Annual Meeting of the American Oil Chemists' Society, Salt Lake City, Utah, USA, May 1–4, 2016

Peyronel, Fernanda; Quinn, B.E.; Ramel, P.; Marangoni, Alejandro G; Pink, David A.;. Cheese: Ultra-small Angle X-ray scattering and Theoretical Models of Enzyme-driven Aggregation Structures in Milk. The International Hydrocolloids Conference. Guelph, Canada. May 16-20, 2016.

Ramel, Pere, R. R.; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Preliminary studies on the Nanostructure of Milk Fat*. 2016

Ramel, Pere, R. R.; **Peyronel, Fernanda**; Marangoni, Alejandro G. Characterization of the crystallization behavior and crystal network formation of milk fat within processed cheese at different length scales. 2nd Food Structure and Functionality Forum Symposium from Molecules to Functionality. Singex, Singapore. Feb 28-March 2, 2016

Ramel, Pere, R. R.; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Preliminary studies on the Nanostructure of Milk Fat*. Canadian Conference on Fats and Oil. Quebec, October 4-6, 2015

Peyronel, Fernanda; Pink, David A.; Marangoni, Alejandro G. *The nano-to micro-scale structures of edible fats as seen by X-ray scattering : static versus dynamics results*. ASAGA world Congress. Rosario, Argentina Oct. 30-Nov 4, 2015

Peyronel, Fernanda; Marangoni, Alejandro G.; Pink, David A. *Correlating polymorphism with static structures deduced from USAXS of edible fats*. Delivery of Functionality in Complex Food Systems. Paris. Paris, France, July 14-17, 2015.

Pink, David A.; **Peyronel, Fernanda**, Quinn, Bonnie; Marangoni, Alejandro G. *Nano- to Micro-scale Aggregation of CNPs in Complex Edible Oils: Multi-Headed TAGwood Snakes, Shearing, and Oil Binding Capacity*. Delivery of Functionality in Complex Food Systems. Paris, France, July 14-17, 2015.

Peyronel, Fernanda; Quinn, Bonnie; Marangoni, Alejandro G.; Pink, David A. *Solid structures formed by triacylglycerol nanoplatelet aggregates, depend upon processing conditions and the amount of tri-, di- and mono-saturated fatty acids*. 5th International Colloids Conference. Amsterdam, The Netherlands, June 21-24, 2015.

Peyronel, Fernanda; Marangoni, Alejandro G.; Pink, David A. *The nano-to meso-scale solid structure of edible fats as seen by USAXS: static versus dynamics results*. The 7th International Symposium on Food Rheology and Structure. ETH, Zurich, Switzerland, June 7-11, 2015.

Macias-Rodriguez, Braulio; **Peyronel, Fernanda**, Marangoni, Alejandro. *Structural and rheological characterization of laminating shortenings*. The 7th International Symposium on Food Rheology and Structure. ETH, Zurich, Switzerland, June 7-11, 2015.

Peyronel, Fernanda; Pink, David A.; Marangoni, Alejandro G. *Quantifying aggregation of triacylglycerol systems, in situ, from angstroms to micrometers in one shot*. Annual Meeting of the American Oil Chemists' Society, Orlando, FL, USA, May 3-6, 2015.

Pink, David A. ;Quinn, Bonnie; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Self-organizing Aggregation Scenarios in Complex Edible Oils*. Annual Meeting of the American Oil Chemists' Society, Orlando, FL, USA, May 3-6, 2015.

Peyronel, Fernanda; Quinn, Bonnie; Marangoni, Alejandro, G.; Pink, David A. *Studies of Fat Mesocrystal Networks at High Concentrations Using Ultra Small Angle X-Ray Scattering*. IUFOST 17th World Congress of Food and Technology and exposition. August 17-21. Montreal, Canada, 2014.

Peyronel, Fernanda; Quinn, Bonnie; Marangoni, Alejandro, G.; Pink, David A. *Studies of Fat Mesocrystal Networks: Modelling, Computer Simulation and Ultra Small Angle X-Ray Scattering*. Denver X-ray Conference. July 28 - August 1. Montana, USA. 2014.

Peyronel, Fernanda; Singh, Pratham; Pink, David A.; Marangoni, Alejandro, G. *Structural Characterization of Commercial Palm-Based-Shortenings Using Ultra-Small Angle X-Ray Scattering and its Relationship to Physical Properties*. Annual Meeting of the American Oil Chemists' Society, San Antonio, TX, USA, May 4-7, 2014.

Quinn, Bonnie; Gordon, Taylor; Marangoni, Alejandro G.; **Peyronel, Fernanda;** Hanna, Charles B. G. Pink, David A. *Aggregation in Complex Triacylglycerol Oils: Coarse-Grained Models, Nanophase Separation, and Aggregation*. Annual Meeting of the American Oil Chemists' Society, San Antonio, TX, USA, May 4-7, 2014.

Peyronel, Fernanda; Marangoni, Alejandro, G. Pink, David A. *Fat Mesocrystal Networks Studied Using Ultra Small Angle X-Ray Scattering*. Annual Meeting of the American Oil Chemists' Society, San Antonio, TX, USA, May 4-7, 2014

Peyronel, Fernanda; Ilavsky, Jan; Marangoni, Alejandro G.; Pink, David A. *In situ 3-D Structure of Edible Fats*. 5th International Symposium Delivery of Functionality on the Complex Food Systems, Haifa, Israel, September 30, October 3, 2013.

Peyronel, Fernanda; Ilavsky, Jan; Quinn, Bonnie E.; Acevedo, Nuria; Mazzanti, Gianfranco; Marangoni, Alejandro G.; Pink, David A. *In situ 3D Fractality of Tristearin in Triolein*. Annual Meeting of the American Oil Chemists Society, Montreal, QC, Canada, April 28-May 1, 2013.

Marangoni, Alejandro G.; Lopez, L. Araceli, **Peyronel, Fernanda;** Toro Vazquez, Jorge. *Microstructure of Gels Made with Monoglycerides and Canola Oil*. Annual Meeting of the American Oil Chemists Society, Montreal, QC, Canada, April 28-May 1, 2013.

Peyronel, Fernanda; Neeson, Ian; Pink, David A.; Marangoni, Alejandro G. *Edible Oils and Their Relative Static Dielectric Values: What is There to Learn?* Annual Meeting of the American Oil Chemists' Society, Long Beach, CA, USA, April 29-May 2, 2012.

Pink, David A.; Papp-Szabo, Erzsebet; Razul, M. Shajahan G.; MacDougall, Collin J.; **Peyronel, Fernanda;** Marangoni, Alejandro G.; Hanna, Charles B. *Oils in Nanospace Confinement*. Annual Meeting of the American Oil Chemists' Society, Long Beach, CA, USA, April 29-May 2, 2012.

Peyronel, Fernanda; Neeson, Ian; Pink, David A.; Marangoni, Alejandro G. *Static Relative Permittivity of Edible Oils*. 4th International Symposium Delivery of Functionality on the Complex Food Systems, Guelph, ON, August 21- 24, 2011.

Avendan Gilda; **Peyronel, Fernanda**; Herman, H.; Martinez, Cecilia E.; Marangoni, Alejandro G. *Mamey Sapote: Physical Characterization and Applications after Fractionation*. Annual Meeting of the American Oil Chemists' Society, Cincinnati, OH, USA, May 1-4, 2011.

Ahmadi, L.; Li, M.; **Peyronel, Fernanda**; Acevedo, Nuria; Mazzanti Gianfranco. *Crystallization Behaviour of a Model Shortening with low Saturated and Zero-trans Fatty Acids Studied by Rheo-XRD*. Annual Meeting of the American Oil Chemists' Society. Cincinnati, USA. May 1 -4, 2011

Pink, David A.; Quinn, Bonnie E.; **Peyronel, Fernanda**; Acevedo, Nuria; Marangoni, Alejandro G. *The Structure of Solid Nanoplatelets in Molecular Fluids: Theoretical Models and Computer Simulation*. Annual Meeting of the American Oil Chemists' Society, Cincinnati, OH, USA, May 1-4, 2011.

Pink, David A.; **Peyronel, Fernanda**; MacDougall, Collin J.; Marangoni, Alejandro G.; Hanna, Charles B.; Razul, M. Shajahan G. *Triacylglyceride Fluids in Confined Spaces: Fluid Structures and Interactions on the Nanoscale*. Annual Meeting of the American Oil Chemists' Society, Cincinnati, OH, USA, May 1-4, 2011.

Peyronel, Fernanda; Neeson, Ian; Pink, David A.; Marangoni, Alejandro G. *OSCAR: an Innovative Device to Measure Static Permittivities for the Quantification of Lipid Interactions*. Annual Meeting of the American Oil Chemists' Society, Cincinnati, OH, USA, May 1-4, 2011.

Peyronel, Fernanda; Marangoni, Alejandro G. *The Effect of Nanoscale van der Waals Interactions on the Mechanical Properties of Fats*. Annual Meeting of the American Oil Chemists' Society. Phoenix, AZ, U.S.A., May 16-May 19, 2010.

Peyronel, Fernanda; Shukla, Abisheck; Prakash, A; Hone, Richard; Neeson, Ian; Marangoni, Alejandro G. *Monitoring Crystal Size, Morphology and Polymorphism by Ultrasonic Spectroscopy in Cocoa Butter*. Annual Meeting of the American Oil Chemists' Society. Phoenix, AZ, U.S.A., May 16-May 19, 2010.

Peyronel, Fernanda; Campos, Rodrigo; Acevedo, Nuria; Marangoni, Alejandro G. *Stabilizer Addition Increases the Oil Binding Capacity of Palm Mid Fraction and Olein Blends*. Crystallization of Lipids, Nucleation to Application. Toronto, ON, Canada, October 3-4, 2009.

Peyronel, Fernanda; Acevedo Nuria; Marangoni, Alejandro G. *The Nanoscale of Triglyceride Crystal Networks and Its Relationship to Mechanical Strength*. Association for Crystallization technology. 16th Larson Workshop. Boston, USA. October 4-7, 2009.

Peyronel, Fernanda; Marangoni, Alejandro G. *Can the Fractal Model be Used to Calculate the Strength of the van der Waals Force Between Fat Crystals?* Crystallization of Lipids, Nucleation to Application. Toronto, ON, Canada, October 3-4, 2009.

Acevedo, Nuria; **Peyronel, Fernanda**; Marangoni, Alejandro G. *Nanoscale Particle Interactions in Crystal Networks of Edible Fats*. ISF World Congress, Sydney, Australia, Sept. 27-30, 2009.

Acevedo, Nuria; **Peyronel, Fernanda**; Marangoni Alejandro G. *Forays into the Nanoscale of Fats*. 100th American Oil Chemist Society (AOCS) annual meeting and expo. Orlando, USA. May 3 to 6, 2009.

Peyronel, Fernanda; Marangoni, Alejandro G. *Are van der Waals Interactions Responsible for the Mechanical Strength of Fats?* American Oil Chemists' Society Annual Meeting, Orlando, FLA, U.S.A., May 3-6, 2009.

Fernanda Peyronel, Acevedo, Nuria; Marangoni, Alejandro G. *X-Ray technique: Its Use in the Determination of the Physical Structure of Fat-Containing Products.* The Human Nutraceutical Research Unit. Grand Opening. University of Guelph. Guelph, Canada. April 23, 2009.

Marangoni, Alejandro G.; **Peyronel, Fernanda;** Acevedo, Nuria. *The Structure and Mechanical Properties of Plastic Fats.* Michel Ollivon Memorial Symposium: Physical Chemistry, Biophysics and Applications of Lipids. Faculty of Pharmacy, UMR CNRS 8612, Universite Paris-Sud XI, Chatenay-Malabry, France, Oct. 1-2, 2008.

Brooks, R.L.; **Peyronel, Fernanda;** Hunt, J.L. *Fano line Shapes in the Spectrum of Solid Hydrogen.* Canadian Association of Physics Congress, Laval University, June 1995.

Feugeas, J.N.; Gonzalez, C.O.; Ferrer, J; **Peyronel, Fernanda;** Addad, R.; Sanchez, G. *Hollow conic electron beam acceleration in Plasma Focus discharges.* IV Latin-America Workshop on Plasma Physics, Argentina, 1990.

Feugeas, J.N.; Brul, S.; Grigioni, G.; Nieto, M.; **Peyronel, Fernanda;** Sanchez, G. *Increase in fatigue life of steel AISI 304 implanted with a pulsed ion of nitrogen.* 90th Metallurgical Workshop of the Argentine Association of Metals, Argentina, 1990.

On line Chapters

Peyronel, Fernanda; Marangoni, Alejandro G. *AOCS -Lipid Library-*
<http://lipidlibrary.aocs.org/physics/menu.htm> American Oil Chemists' Society Annual Meeting, Orlando,

Peyronel, Fernanda; Quinn, Bonnie; Pink, David; Marangoni, Alejandro G. *Ultra Small Angle X-Ray Scattering Experiments, Modelling and Computer Simulation Studies of Fat Mesocrystal Networks. DXC conference proceedings, [Advances in X-ray Analysis](#), Volume 58 on CD. ICDD*
<http://www.icdd.com/>

VOLUNTEER WORK

- 2015-2016 President Eden Mills Nordic. Cross Country ski club, Guelph
- 2003-2015 School Parent Association volunteer and council member - John McCrae P.S , King George P.S., F.A Hamilton P.S., Guelph
- 2006-current Cross Country Ski Competition Coach, Level I and II, Highlands Nordic, Duntroon, Ontario and Eden Mills Ski club, Guelph
- 2008-Current Short seminars for High School Students to teach them the basics of what it means "to do research at the University"
- 2009-current Member Block Parent with the Guelph Block Parent Inc.
- 2005-2015 Tree Planting Coordinator - Clairfield Neighbourhood Group, South Guelph.
- 2006-current Minor Guelph Soccer Coach, Guelph
- 2006-current Judge at the Waterloo-Wellington Science and Engineering Fair, Kitchener

PROFESSIONAL ASSOCIATIONS

2006-2012 Member - Canadian Federation of University Women
2008-current Member - American Oil Chemists' Society
1983-1990 Member - American Physical Society

AWARDS

2015 Nominated for the University of Guelph Community Service Award
2015 American Oil Chemists' Society Foundation's Kalustian award
2015 American Oil Chemists' Society Student Honored award
2015 Chosen to represent the University of Guelph for the SWAAC Graduate Student Awards of Merit in the province of Ontario
2014 10 years of Community Volunteer Service Recognition by the Government of Ontario
1989-1991 Undergraduate Scholarship. Universidad Nacional de Rosario, Argentina
1982 Best Female High School Student and Amateur Athlete in the Country, selection by the Panathlon, Argentina

LANGUAGES

Fluent in: English and Spanish
Partial in: French, Italian and German