

DAY 1

Wednesday 17 October

9.00am	Registration	30 mins
9.30am	Morning tea	45 mins
10.15am	Neutrons and Food Welcome	25 mins
MORNING SESSION Glassy states		CHAIR Gleb Yakubov Bei Tian
10.40am	Importance and problems of water in food and food related materials Jan Swenson - Chalmers University of Technology	40 mins
MID MORNING SESSION Processing, rheology and tribology		
11.20am	From wetting to wear: visualization of contact zone in beverage tribology Stefan Baier - PepsiCo and University of Queensland	20 mins
11.40am	Combining rheology and small-angle scattering of neutrons and X-rays for dynamic assessment of microfibrillated cellulose under shear Evgenii Velichko - TU Delft	20 mins
12.00pm	Neutron and X-Ray reflectivity from chocolate sandwiches Iva Manasi - University of Edinburgh	20 mins
12.20pm	Rheo-ND: Temperature and shear induced crystal transformation of a model triglyceride observed using neutron diffraction Norman Booth - ANSTO	20 mins
12.40pm	Lunch - Sponsored by Riddet Institute	1 h 20 mins
MID AFTERNOON SESSION Food packaging, preservation, safety and quality		CHAIR Ramune Kuktaite Matthew van Leeuwen
2.00pm	Determining seafood provenance and safety through nuclear techniques Debashish Mazumder - ANSTO	20 mins
2.20pm	The interaction of fluorinated compounds with a phospholipid bilayer Shirin Nouhi - Uppsala University	20 mins
2.40pm	Interaction of native and modified clupeine with Gram-negative model membranes Marcia English - Saint Francis Xavier University	20 mins
3.00pm	Quality and stability evaluation of chicken meat treated with gamma irradiation and turmeric powder Muhammad Arshad - Government College University Faisalabad, Pakistan	20 mins
3.20pm	Afternoon tea - Sponsored by ANBUG	30 mins
AFTERNOON SESSION Innovative methods for food (nuclear, synchrotron and light)		CHAIR Rob Robinson Iva Manasi
3.50pm	Neutrons and Food - an introduction Elliot Gilbert - ANSTO	20 mins
4.10pm	Applications of Neutron Activation Analysis in food studies Attila Stopic - ANSTO	20 mins
4.30pm	Opportunities for QENS and neutron spectroscopy at ACNS Nicolas de Souza - ANSTO	20 mins
4.50pm	High-resolution macro ATR-FTIR chemical imaging capability at Australian Synchrotron IR Beamline and its applications in food science Jitraporn Vongsvivut - ANSTO	20 mins
5.10pm	X-ray fluorescence microscopy capabilities at the Australian Synchrotron and applications in food science David Paterson - ANSTO	20 mins

DAY 2

Thursday 18 October

MORNING SESSION Food emulsions		CHAIR Tommy Nylander Lirong Cheng
9.00am	Lipid digestion – Key to the ability of milk-like emulsions to promote oral drug delivery Andrew Clulow - Monash University	20 mins ⌚
9.20am	Oil-in-water emulsion system stabilized by emulsion droplets coated with whey protein microgels Lirong Cheng	20 mins ⌚
9.40am	Interface structure of 70% fish oil-in-water emulsions stabilized with combinations of sodium caseinate and phosphatidylcholine: use of small angle neutron and X-ray scattering techniques Betül Yesiltas - National Food Institute, Technical University of Denmark	20 mins ⌚
10.00am	Open Forum - Facilitator: Jamie Schulz	40 mins ⌚
10.40am	Morning tea - Sponsored by ACIS	40 mins ⌚
MID MORNING SESSION Lipids and fats		CHAIR Hideki Seto Betül Yesiltas
11.20am	The memories of liquid triacylglycerols Gianfranco Mazzanti - Dalhousie University	20 mins ⌚
11.40am	Structure formation in oleic acid - sodium oleate based oleogels Steven Cornet - Wageningen UR	20 mins ⌚
12.00pm	Static and dynamic multiscale characterisation of micronized fat crystal network formation and disruption by USAXS and rheo-SAXS Tatiana Nikolaeva - Wageningen University	20 mins ⌚
MID MORNING SESSION Innovative methods for food (nuclear, synchrotron and light)		
12.20pm	Heavy food molecules from the National Deuteration Facility for structure function applications Tamim Darwish - ANSTO	20 mins ⌚
12.40pm	Lunch - Sponsored by Office of NSW Chief Scientist	1 h 20 mins ⌚
MID AFTERNOON SESSION Dairy		CHAIR Toshiji Kanaya Shirin Nouhi
2.00pm	Structural characterization of milk coagulation from 0.1 to 20µm using Ultra-Small Angle Neutron Scattering Alejandro Marangoni - University of Guelph	40 mins ⌚
2.40pm	Ultra-Small Angle Neutron Scattering investigation of milk coagulation: Data analysis and contrast matching methods Nukhalu Callaghan-Patrachar - University of Guelph	20 mins ⌚
3.00pm	Dynamics of calcium caseinate in H ₂ O or D ₂ O studied by Quasi-Elastic Neutron Scattering (QENS) Bei Tian	20 mins ⌚
3.20pm	Afternoon tea - Sponsored by Anton-Paar	30 mins ⌚
		CHAIR Marcia English Steven Cornet
3.50pm	Ultra-small angle neutron scattering studies on milk and cheese curd formation Carl Adams - St. Francis Xavier University	20 mins ⌚
4.10pm	A Structure of Artificial Casein Micelles Composed of Deuterated β-Casein and Native κ-Casein: A Contrast Variation SANS and SAXS Study Jared Raynes - CSIRO	20 mins ⌚
AFTERNOON SESSION Innovative methods for food (nuclear, synchrotron and light)		
4.30pm	Small Angle Neutron Scattering instrument BILBY: capabilities to study food science related problems Anna Sokolova - ANSTO	20 mins ⌚
4.50pm	Neutron Imaging Application in Food Science on DINGO at OPAL Ulf Garbe - ANSTO	20 mins ⌚
6.30pm	Dinner cruise	3 h ⌚

DAY 3

Friday 19 October

MORNING SESSION Plant materials		CHAIR Marianne Gaborieau Evgenii Velichko
9.00am	The potential of scattering techniques to investigate the structure and molecular interactions of Polysaccharides Marta Martínez-Sanz - IATA, CSIC	40 mins 🕒
9.40am	Brush-like polysaccharides with motif-specific interactions Gleb Yakubov - University of Queensland	20 mins 🕒
10.00am	Supramolecular characterisation of starch in rice by NMR, SAXS and XRD Matthew Van Leeuwen - Western Sydney University	20 mins 🕒
10.20am	If we could design plant protein structures and tune properties in processed food Ramune Kulkaite - Swedish University of Agricultural Sciences	20 mins 🕒
10.40	Morning tea	40 mins 🕒
MID MORNING SESSION Encapsulation and controlled release		CHAIR Marianne Gaborieau Evgenii Velichko
11.20pm	Neutron scattering study of lipid sponge-phase nanoparticles as enzyme carriers for food processing Tommy Nylander - Lund University	20 mins 🕒
11.40pm	A combined SANS and USANS study to investigate the structure of solid lipid nanoparticles Rohan Shah - Swinburne University of Technology	20 mins 🕒
12.00pm	Structural investigation on nanostructured lipid carriers for fish oil by small angle scattering Martin Schmiele - Københavns Universitet	20 mins 🕒
12.20am	IUCr Travel Award Presentation	40 mins 🕒
1.00pm	Lunch - Sponsored by ANSTO	1 h 🕒
MID AFTERNOON SESSION Industrial engagement		CHAIR Jitendra Mata
2.00pm	Neutrons for industry - ACNS ILO, ANSTO - Access, services and case studies Anna Paradowska - ANSTO	20 mins 🕒
2.20pm	Industry Q&A - Facilitator: Jitendra Mata	40 mins 🕒
3.00pm	Neutrons and Food 6 Presentation	20 mins 🕒