

**Prof. Watson Loh**

Titolo talk: Tailoring emulsion stability with self-assembled films

**Abstract**

This seminar will address two strategies for controlling emulsion stability using self-assembled films. The first part focuses on highly stable emulsions obtained with self-assembled surfactant films, highlighting their origin and the means to control stability in order to produce emulsions with a high volume of oil phase dispersed in water (HIPEs). The second part introduces aqueous coacervate emulsions dispersed in organic solvents and their application in enzymatic catalysis, opening up possibilities for biocatalysis in systems that cannot be conducted in an aqueous phase.

**Short CV**

Prof Watson holds a degree in Industrial Chemistry from the Federal University of Rio Grande do Sul (1986) and a PhD in Chemistry from the State University of Campinas (1992). Completed a postdoctoral fellowship at the Chemical Laboratory, University of Kent at Canterbury, UK (1992–1994), and was a visiting researcher at the Division of Physical Chemistry, University of Lund, Sweden (2003–2004). Currently Full Professor at the State University of Campinas, where he also served as Head of the Department of Physical Chemistry and Director of the Institute of Chemistry (2010–2014). He is Associate Editor of ACS Sustainable Chemistry & Engineering. Research experience lies in Chemistry, with emphasis on Chemical Thermodynamics and Interfacial Physical Chemistry, with main topics including polymer and/or surfactant solutions, phase equilibria and structures in complex fluids, colloidal physical chemistry of petroleum and fuels, and applications of calorimetry.

**Prof. Caio Otoni**

Titolo talk: Heavy duty polysaccharides based films, gels, and foams.

**Abstract**

This seminar will provide an integrated overview of heavy-duty polysaccharide-based films, gels, and foams, with a focus on bacterial cellulose hydrogels, nanocellulose-derived materials, and electrostatic complexation as a central (dis)assembly mechanism. Elements of cellulose-producing strains, interface engineering, supramolecular chemistry, and materials processing and engineering will be bridged to highlight the effects of charge density, ionic strength, surface chemistry, and processing pathways on the formation, mechanical robustness, functionality, and recycling of cellulose-based architectures across different length scales.

**Short CV:**

Professor of Polymer Chemistry at the Institute of Chemistry of the São Paulo State University at Campinas (UNICAMP) and an accredited faculty member of the Graduate Program in Materials Science and Engineering (PPGCEM) at the Federal University of São Carlos (UFSCar). He holds a degree in Food Engineering from the Federal University of Viçosa (UFV) and a PhD in Materials Science and Engineering from UFSCar. He was also a Visiting Researcher at the University of Bologna (UNIBO, Italy). His main research interests include biopolymers and biocolloids, nanocelluloses, sustainable materials, nanocomposites and nanohybrids, and multifunctional packaging.