Mouthfeel—how texture makes taste

4 pm – 5 pm Monday 11 February 2019
Lecture Theatre E7, Building 72,
14 Alliance Lane
Clayton, VIC 3800 Australia

Abstract:

Our interaction with the food we eat proceeds via the five senses, one of which is taste proper. However, a ‘taste experience’ arises as the brain’s multimodal integration of all sensory inputs folded with memories, expectations, emotions, etc. A critical component of our appreciation and preference of food is the tactile (somatosensory) sensory perception of the physical structure of the food, i.e., texture, the so-called mouthfeel. Often food is rejected not because of taste/flavor but because of an undesired or unexpected mouthfeel. I will give examples of the importance of mouthfeel for different types of foodstuff including vegetables, seaweeds, and cephalopods, and demonstrate how a gastrophysical approach can lead to food innovation and gastronomic advancement.

Speaker: Prof. Ole G Mouritsen, University of Copenhagen, Denmark

Ole G. Mouritsen PhD DSc is a physicist and professor of gastrophysics and culinary food innovation at the University of Copenhagen. He has a background in physical chemistry, interfacial science, and membrane biophysics. He is an elected fellow of the Royal Danish Society of Sciences and Letters, the Danish Academy of Technical Sciences, the Danish Gastronomical Academy, and Sigma Xi. He is the author of several scientific books and about 400 scientific papers and reports, in addition to being recipient of a number of prestigious science and science communication prizes, most recently the DuPont Nutrition & Health Science Medal for Excellence in Food Science (2016). In 2016 he was appointed Japanese Cuisine Goodwill Ambassador by the Japanese Ministry of Agriculture, Forestry, and Fisheries. He is currently president of the Danish Gastronomical Academy and director

**Public lecture:**
**This lecture**

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Life Quality Engineering (LQE) Encapsulating Food Practices – Why, How and Future Prospects

3 pm – 4 pm Tuesday 19 February 2019
Lecture Theatre E7, Building 72,
14 Alliance Lane
Clayton, VIC 3800 Australia

Abstract:

In this talk, a path taken by an ‘ever’ evolving chemical engineer is explained. The research and development as a result of this path can be seen from being very specific to be more comprehensive. Meeting the grand challenges in the improvement and maintenance of Life Quality (LQ) in an aging society (with more diabetic populations for instance) yet in a fast changing world, chemical engineering becomes even more multidisciplinary and multi-scaled. Industrial processing, in vivo and in vitro processes all have to be understood interactively and systematically. In proposing LQ as one of the main driving forces for humanity, chemical reactor engineering can be seen as a solid framework for behavioral analyses. Applications and extensions of chemical engineering principles in LQ are fascinating and the prospects for future are ever broadening. Finally, if time allows, a new approach to engineering turbulence analysis will also be talked about only for fun.

Speaker: Prof. Xiao Dong Chen, Soochow University, China

Soochow University Distinguished Professor and Founding Head of the School of Chemical and Environmental Engineering (2013- ). He obtained a BE in Engineering Thermophysics from Tsinghua University (1987), a PhD in Chemical and Process Engineering from Canterbury University (1991), and a MSc in Mathematics from University of New South Wales (2014). He is an Editor of Trends in Food Science and Technology (Elsevier) and the founding editor of International Journal of Food Engineering (2005). Among many awards given, he was the recipient of the Young Food Engineer Award at the 6th International Congress of Engineering and Foods (ICEF-6, Mexico, 2004) and the
Lifetime Achievement Award at ICEF-12 (Quebec, Canada, 2015). Most recently, he was given the first Docteur Honoris Causa in the history of Agrocampus Ouest (France, 2017), The Most Favourite Lecturer of the Year voted by UG students at Soochow University (2017), The Power Chair Professor 2017 at National Tsinghua University Taiwan and Indian Institute of Chemical Engineers' Padmashri Dr G P Kane Chemcon Distinguished Speaker Award (2017) and Arun Mujumdar Medal for Excellence in Drying Research (2017). He was the Chairman of the 2012 International Drying Symposium (IDS) and the co-chairman of the 2016 AIChE Sustainability Symposium. He is an Adjunct Professor at the School of Biology and Basic Medical Sciences at Soochow University (2016-), Adjunct Professor at Xiamen University (2013-) and at Monash University (2010-) and an Honorary Professor at the University of Auckland (2006-). He is also a Lifetime Honorary Mentor appointed for Guiyang 1st High School (China) since 2018. He is a Fellow of Royal Society of New Zealand (2001) and a Fellow of Australian Academy of Technological Sciences and Engineering (2007). Also a Fellow of IChemE UK and a Senior Member of AIChE. Formerly he was a Senior Research Engineer at New Zealand Dairy Research Institute, a Chair Professor at University of Auckland (New Zealand), a Chair Professor at Monash University (Australia) and a Chair Professor at Xiamen University (China). By the end of 2018, he has published over 570 refereed journal articles and more than 230 conference papers. Delivered over 60 Plenary/Keynote/Invited Lectures worldwide. Published 3 books (including Modelling Drying Processes–A Reaction Engineering Approach published by Cambridge University Press, 2013), authored and co-authored 23 book chapters and over 50 reports on industrial consulting projects. His research areas include biology inspired chemical engineering (initiator), food engineering, particle technology, turbulence, spontaneous combustion and mathematical modelling. He is interested in pop music, painting and applying chemical engineering principles to analyse social behaviours etc. He is also interested in commercializing the technologies developed in his team as board directors of two innovative companies in China and has been a frequent consultant for several other companies in China and internationally.
ACJCR Social Function

Afternoon Tea – provided by Australia-China Joint Research Centre in Future Dairy Manufacturing (ACJRC)

4 pm – 5 pm Tuesday 19 February 2019
22 Alliance Ln, Room 203, Conference Room (ChemEng)
Clayton, VIC 3800

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