

You are cordially invited to attend the departmental lecture on

Continuous crystallization and continuous synthesis

Presented by **Prof. Xiongwei Ni**



Thursday, 16th March 2017, 11h00 – 12h30

Address: Celestijnenlaan 200N, Heverlee, Aula 00.04

Abstract from Prof. Xiongwei Ni

Flow chemistry technologies play a key role in process intensification and strives to improve manufacturing in the chemical and pharmaceutical industries, through more efficient use of reagents, solvents and energy while minimizing side reactions, unwanted products and waste materials. Flow chemistry comes with different sizes and shapes from micro, meso through to macro scales; each has some unique features as well as some shortfalls. In this presentation, I shall explain why flow is important and illustrate how plug flow can be achieved and implemented in crystallization. I will use real industrial case studies to demonstrate that significant step change benefits can be achieved using this type of plug flow technology in lab, pilot and industrial scales. I hope that the presentation will stimulate interesting discussion, promote innovation and confidence in implementing such flow technologies in continuous crystallization.

Short biography of Prof. Xiongwei Ni

Professor Xiongwei Ni was involved in the development of oscillatory flow technology at its inception in 1988 at the University of Cambridge, UK. He has over 20 years research experience and is the world expert in the science and technological applications of oscillatory baffled reactors (OBR). Xiongwei Ni has been a Full Professor in Chemical Engineering at Heriot-Watt University, Edinburgh since 1999, is the lead author or principal co-author of over 190 scientific papers on OBR related research and has as well 8 patents. He was the keynote speaker at American Institute of Chemical Engineering Annual Meetings, Process Intensification Conferences, Scientific Update Conferences, Industrial Seminars of Process Engineering, Society of Chemical Industry Symposium and the Royal Society of Chemistry Symposia. Professor Ni has delivered seminars at Universities and industries in the USA, Europe, Canada, Australia, New Zealand, UK, China and Japan. He is a Fellow of Institute of Chemical Engineers (IChemE) and a Fellow of the Royal Society of Chemistry (RSC), the UK representative in Process Intensification in the European Federation of Chemical Engineering. In 2005, he span off a company, NiTech Solutions Ltd, which specialises in converting batch to continuous processes. Prof Ni has directly been involved in a large number of continuous crystallization and reaction of APIs, fine chemicals and food products, and has gained significant insight into these operations.