Fouling and Cleaning in Food Processing

Provisional Schedule

Please note that the order of presentations has NOT been finalised

Monday 22 March - Morning

Conference Opening

Session 1 Surfaces

Paper #	Author, Affiliation	Title
45	Saranya Ashokkumar *Technical University Denmark*	Cleanability evaluation of different surfaces by fouling from contact frying of foods
28	Joanna Verran *Manchester Metropolitan University*	Surface topography and organic soil: factors affecting the hygienic status of open food contact surfaces
30	Peter Kelly *Manchester Metropolitan University*	Comparison of tribological and anti-microbial properties of CrN/Ag, ZrN/Ag, tin/Ag, and CrN/Cu nanocomposite coatings
32	Angelique Laurent *Manchester Metropolitan University*	The effect of humidity on cell survival on stainless steel and novel antimicrobial surfaces (poster)
40	Thierry Benezech *INRA*	Comparison of the cleanability of pieces of equipment in stainless steel and ceramic

Session 2 Fouling & Techniques

Paper #	Author, Affiliation	Title
35	Jen-Yi Huang *University of Cambridge*	Experimental studies of food fat fouling using a novel spinning disc apparatus
37	Natalie Hotrum *NIZO*	Prevention of fouling in heat exchangers: exploring the potential of ultrasound
4	Kathryn Whitehead *Manchester Metropolitan University*	Industrial and analytical methods for the detection of industrial food fouling
27	Lindsay Smith *Manchester Metropolitan University*	A critical evaluation of sampling methods used for assessing microorganisms on surfaces

Monday 22 March – Afternoon

Session 3 Cleaning & Techniques

Paper #	Author, Affiliation	Title
7	Edward Ishiyama *University of Cambridge*	The effect of ageing on fouling-cleaning symbiosis
20	Pamela Cole *University of Birmingham*	The effect of cleaning fluid; temperature and flow rate on the removal of toothpaste from 2 inch pipe
21	Kylee Goode *University of Birmingham*	Characterising the cleaning mechanisms of yeast and implications for improving cleaning in place (CIP)
8	Marc Mauermann *Fraunhofer Application centre for Processing Machines and Packaging Technology, Dresden*	Monitoring the cleaning progress using optical detection methods
26	Wolfgang Augustin *TU Braunschweig*	Pulsed flow for enhanced cleaning in food processing
29	Peter Fryer *University of Birmingham*	Matching the nano- to the meso-scale: experiments with atomic force microscopy and micromanipulation
34	Patrick Gordon *University of Cambridge*	Development of a scanning fluid dynamic gauge (sFDG) for use in cleaning studies
47	Joe Quarini *University of Bristol*	Cleaning small diameter pipes with ice pigs
39	Thierry Benezech *INRA*	Removal kinetics study of pseudomonas fluorescens biofilm from closed systems

Tuesday 23 March

Morning

Session 4 Dairy Fouling

Paper #	Author, Affiliation	Title
10	X. Dong Chen *Monash University*	Influence of adsorption pre-treatment on the extent of dairy fouling of heat transfer surface
36	Martijn Fox *NIZO*	Reduction of fouling in whey evaporators: Modelling of mineral fouling
38	Ali Bani Kananeh *GEA Ecoflex GmbH*	Reduction of milk fouling inside plate heat exchanger using nano-coatings
42	Jaimin Patel *University of Auckland*	Surface modification to reduce dairy fouling
43	Bipan Bansal *Fonterra*	Effect of milk composition on dairy fouling in plate heat exchangers
44	Bipan Bansal *Fonterra*	Issues with monitoring dairy fouling in heat exchangers

Morning/Afternoon

Session 5 Dairy Cleaning

Paper #	Author, Affiliation	Title
22	Cristiane Boxler *Technical University Braunschweig*	Fouling and cleaning of milk components on DLC-coated surfaces (poster)
25	Ken Morison *University of Canterbury*	Sulphamate ions enhance the cleaning of thick milk deposits
41	Ruben Mercade Prieto *University of Birmingham*	Swelling and dissolution in cleaning of whey protein gels
46	Ruben Mercade Prieto *University of Birmingham*	Fundamentals of model protein gel dissolution: the path to elucidating industrial dairy cleaning
2	Abd Malik Othman *University of Birmingham*	Cleaning of sweetened condensed milk deposits on a stainless steel surface
3	Eva Wallhäußer *TU Munich*	Acoustic impedance analysis for determining presence and cleaning success of dairy fouling

Tuesday 23 March Afternoon

Session 6 Membrane Fouling I

Paper #	Author, Affiliation	Title
33	John Chew *University of Cambridge*	Application of fluid dynamic gauging and optical imaging to membrane fouling
5	Sarah Jones *University of Bath*	The application of fluid dynamic gauging to the investigation of synthetic membrane fouling phenomena
11	Laura Head *University of Bath*	Fouling of microfiltration membranes during the removal of thermophilic spores from high solids content milk protein isolate (MPI) solutions (poster)
12	Sarah Creber *University of Cambridge*	NMR studies of biofilms on reverse osmosis membranes
17	Murielle Rabiller-Baudry *University of Rennes*	On the use of surfactants based on glucidic units for cleaning of PES membranes fouled by milk proteins (poster)

Wednesday 24 March

Session 7 Membrane Fouling II

Paper #	Author, Affiliation	Title
6	Sarah Jones *University of Bath*	The effect of pretreatment protocols upon the fouling and cleaning characteristics of UF and MF membranes
13	Peter Bechervaise *University of Bath*	Attachment phenomena during the microfiltration of concentrated gum arabic solutions containing thermo-resistant spores
18	Anna van Dinther *Wageningen University*	Prevention of fouling during membrane filtration with the aid of hydrodynamics
14	Thomas Pintelon *University of Cambridge*	Simulating biofilm growth in industrial applications

Session 8 Membrane Cleaning

Paper #	Author, Affiliation	Title
16	Lydie Paugam *University of Rennes*	Cleaning efficiency and impact on production fluxes of oxidizing disinfectants on a PES ultrafiltration membrane fouled with proteins
24	Murielle Rabiller-Baudry *University of Rennes*	On the use of degradation products of milk and vegetal oils for bio-cleaning of PES membrane fouled by milk proteins
19	Ken Morison *University of Canterbury*	Effects of hypochlorite damage on flux through polyethersulphone ultrafiltration membranes

Conference Summary and Close