

I N T E C



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Anuncio de seminario

Día: Jueves 11 de Abril de 2019

Hora: 10 h

Lugar: Aula 18 del INTEC I, Predio CONICET Santa Fe “Dr. Alberto Cassano”.

Tema: Coupled flows and complex fluids: understanding cleaning mechanisms in domestic and industrial applications

Expositor: Prof. Ian Wilson

Department of Chemical Engineering and Biotechnology – University of Cambridge – UK.

<https://www.ceb.cam.ac.uk/directory/ian-wilson>

Resumen. Cleaning is a ubiquitous operation in the home and in manufacturing. We clean to remove unwanted residues or to purge one product from the equipment to ensure no cross-contamination with the next. Many installations in the food, pharmaceutical, biotechnology, chemical and nuclear industries employ automated cleaning-in-place systems which circulate cleaning solutions through the equipment, minimising the potential escape of product or ingress of micro-organisms. These operations consume large quantities of water and thermal energy so the sustainability of such operations can be improved by optimising their performance. Many cleaning mechanisms involve coupled flows of cleaning solution and the soil (deposit, residue, crud) on the surface, with cleaning agents added to convert the soil into a mobile form. Experience in the kitchen will tell you that there are many different soil rheologies present. Viscoplastic soils are often the most difficult to clean as the cleaning fluid must overcome the material's 'yield stress'. This seminar will demonstrate how fluid mechanics and rheology can provide some answers to these challenging problems, and even encourage attendees to do some experiments (i.e. dishwashing).

Idioma: Inglés.

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Durante el seminario habrá café.