

## Social Programme

There will be a welcome reception and conference dinner during the conference. Trips to London, Oxford and Windsor will be organised on an "on demand" basis on July 26, 2014, after the conference has ended.

## Exhibition

A key part of CCC2014 will be the Exhibition. The program will be structured to ensure that participants have ample opportunities to meet commercial CCC/CPC suppliers with their state-of-the-art instrumentation. To reserve booth space and get quotations, exhibitors should contact the Conference Chair.

## Meeting and Hotel registration

Brunel University has its own hotel accommodation. This is in or adjacent the Lancaster Suite or Lancaster Lodge. Room prices are in the order of £40-£50 per night +VAT (20%). Please consult the web site [www.ccc2014.com](http://www.ccc2014.com) which will be regularly updated as the organization of the conference progresses.

## Contact

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Advanced Bioprocessing Centre  
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## Abstracts

One-page abstracts (up to 500 words) are invited for research involving all areas of CCC/CPC and related techniques using a support free liquid stationary phase. The abstracts along with title, authors, affiliation and a summary of the research (see [www.CCC2014.com](http://www.CCC2014.com) for more detail) should be sent as a Word electronic file to:

[CCC2014@brunel.ac.uk](mailto:CCC2014@brunel.ac.uk)

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## Special Journal Issue of JCA

Elsevier (the Journal of Chromatography A) have agreed to publish papers arising from presentations and posters at the meeting as a virtual special issue. They will also be pioneering new forms of dissemination of the conference by publishing links to videos/powerpoints, prize winners and keynote lectures as part of the special issue.

## How to get there

Brunel University is located in Uxbridge which is 5 miles from Heathrow Airport, 40 miles from Gatwick, Luton and City Airports and 60 miles from Stansted. Uxbridge is 45 minutes from Central London at the end of the Metropolitan Underground line. The U3 and 222 buses from Heathrow go to the University.

Full location and access details can be found at [www.brunel.ac.uk/about/campus/directions](http://www.brunel.ac.uk/about/campus/directions)

## CCC International Committee

Prof Alain Berthod, Lyon, France  
Prof Xueli Cao, Beijing, China  
Prof Walter D. Conway, Buffalo, NY, USA  
Dr Dalene de Beer, Stellenbosch, South Africa  
Prof Qizhen Du, Hangzhou, China  
Prof Brent Friesen, River Forest, IL, USA  
Dr Svetlana Ignatova, Uxbridge, UK  
Dr Yoichiro Ito, Bethesda, MD, USA  
Dr Yeong Shik Kim, Seoul, South Korea  
Prof Artak Kostanian, Moscow, Russia  
Prof Gilda Leitao, Rio de Janeiro, Brazil  
Prof Tatiana Maryutina, Moscow, Russia  
Dr Mirjana Minceva, Erlangen, Germany  
Prof Hisao Oka, Nagoya, Japan  
Prof Yuanjiang Pan, Hangzhou, China  
Prof Guido F. Pauli, Chicago, IL, USA  
Prof Jean-Hugues Renault, Reims, France  
Prof Yoichi Shibusawa, Tokyo, Japan  
Dr Kazufusa Shinomiya, Chiba, Japan  
Prof Ian A. Sutherland, Uxbridge, UK  
Dr Adrian Weisz, College Park, MD, USA  
Prof Peter Winterhalter, Braunschweig, Germany  
Prof Tianyou Zhang, Beijing, China

## CCC Industrial Committee

Dr Roland Brown, Pfizer, Sandwich, UK  
Dr Keith Freebairn, GSK, Stevenage, UK  
Dr Paul Hellier, Pierre Fabre, Toulouse, France  
Dr Véronique Pinilla, UCB Pharma, Brussels, Belgium  
Dr Frank Riley, Pfizer, Groton, CT, USA  
Dr Christoph Seidel, Roche, Penzberg, Germany  
Dr Neil Sumner, AstraZeneca, Macclesfield, UK



# CCC2014

London - UK July 23-25, 2014



## Background

Separation technology and scale-up of separation processes are one of the major challenges facing industry today. This conference series highlights the progress being made in new processes where the sample is simply kept in a liquid stream.

Counter-current chromatography (CCC) and Centrifugal Partition Chromatography (CPC) are unique liquid-liquid extraction/ chromatography processes with a support free liquid stationary phase. As both phases are liquid either phase can be the mobile phase opening up a range of different operating modes, including continuous processing. There is no adsorption to solid supports, particulates are tolerated and the high volume proportion of stationary phase means that there is high loading capacity and high resolution separation with a low number of theoretical plates.

When the 1st International Conference on CCC was held in London in September 2000, the technology was only just evolving as a laboratory process. Now, 14 years on, the technology is commercially robust, competitive at an industrial scale and finding application in many laboratory and industrial scale separations including recovery of target chemicals from waste streams.

## Conference Overview

The conference will be preceded by a two-day workshop for those less familiar with the technology or those wanting to have a master class for their own particular application. The main conference will be opened by Professor Julia Buckingham, Vice-Chancellor of Brunel University and herself a pharmacologist. This will be followed by a keynote lecture given by Dr Svetlana Ignatova, Director of Brunel's Advanced Bioprocessing Centre, which will highlight the huge technological and process advances that have been made since the first meeting held here at Brunel in 2000. Each day will include up to four of the conference themes with presentations ranging from keynotes and 20 minute oral presentations (15 minutes + 5 minutes questions) to flash presentations (3 minutes) on selected posters.

The second day will be dedicated to industrial delegates with an opening talk by Sir Richard Sykes, Chancellor of Brunel University and in the past Rector of Imperial College and CEO of GlaxoSmithKline. Exhibitors will have a chance to give short presentations on this day and delegates will have an opportunity to focus on scale-up and production issues that have not been aired at CCC conferences before. This day will culminate in the Conference Dinner.

The final day will start with Emerging Technologies so that any Industrial delegates who want to linger can get a taste for the future.

## Conference Themes

**Process Development** - highlighting the versatility of the process with different elution/separation modes (i.e., elution/extrusion; pH zone refining; ion-exchange; liquid-liquid extraction; chiral separations)

**Scale-up and Scale-down** - transferability of the process from one country, instrument and scale to another country, instrument and scale

**Continuous Processing** - true moving bed; intermittent counter-current extraction; dual flow; non-equilibrium processes

**Method Development** - rapid and robust (including automated) approaches and optimisation processes

**Novel Solvent Systems** - novel solvent and additives for improving selectivity, solubility and phase system stability

**Process Modelling** - theory, prediction and visualisation

**Instrumentation and Process integration** - hyphenated techniques, robust engineering and technological developments

**Applications** - from small molecules to large biomolecules - natural and synthetic products from the food, agriculture, pharmaceutical, fine chemicals and perfume sectors; environmental applications

**Emerging technologies** - particles, biologics, cells, reactive extraction and novel liquid extraction processes

## Key Dates

April 30, 2014	For receipt of abstracts
May 31, 2014	For early registration
June 15, 2014	Final Conference Programme
July 21-22, 2014	Two day short course
July 23-25, 2014	CCC2014 Int. Conference
Sept 30, 2014	For manuscripts to JCA

## Conference venue and location

The conference will be held on the Brunel University Campus in Uxbridge, West London (UB8 3PH) which is very close to Heathrow Airport. Conference sessions and the exhibition will take place in the Hamilton Conference Centre at Brunel. The pre-conference workshop on July 21-22, 2014 will take place in Brunel's Advanced Bioprocessing Centre which is nearby.

## Registration

Delegates can register online on the conference web site: [www.ccc2014.com](http://www.ccc2014.com). The registration rates are as follows:

	Early	Late
Academic Registration (Full)	£300	£400
Industry Registration(Full)	£500	£650
Industry Registration (Industrial Perspective Day only)	£200	£300
Student* Registration (Full)	£200	£250
Accompanying Person Registration (Full)	£100	£150
Welcome Reception (per head)	£25	£25
Conference Dinner (per head)	£60	£60

\* A limited number of bursaries are available.

