

The 4th International Conference on

CC2006 **Countercurrent
Chromatography**

August 8 - 11, 2006

The National Institutes of Health
Bethesda, MD 20892, USA



Background and Scope of Meeting

Countercurrent Chromatography (CCC) (1970) is a collection of continuous liquid-liquid partition techniques that do not use a solid support. These include, among others, *high - speed CCC* (HSCCC) (1981) *centrifugal partition chromatography* (CPC) (1982) and *pH-zone-refining CCC* (1993). All CCC systems use suitable column configurations to retain one of the two immiscible solvent phases in the column while the second phase is pumped through the column. These techniques apply to separations of mixtures that range from analytical (microgram) to preparative (>10 grams up to kilograms) scale and are usually accomplished within a few hours. This relatively new methodology was found to be useful for separation and/or purification of components from medicinal plants (e.g., flavonoids, alkaloids, anthraquinones, lignans, steroids, saponins, glycosides), dyes, lipids, agrochemicals, vitamins, inorganic elements, amino acids, peptides and various closely-related isomers. It can also be used for separation of biopolymers, such as proteins and nucleic acids, using Albertsson's aqueous-aqueous polymer-phase systems.

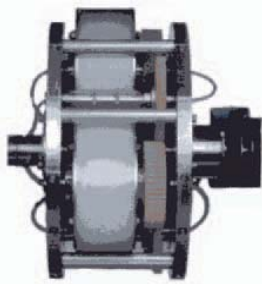
The 4th International Conference on CCC (<http://www.ccc2006.org>) will be held on Aug. 8 - 11, 2006 in the cradle of CCC development, the campus of the National Institutes of Health outside of Washington, D.C., and will encompass all areas involving CCC, such as theory, new technology and applications. A comprehensive symposium involving several invited speakers on the applications of CCC to natural products is scheduled for Aug. 10, 2006. The attendees at the 47th Annual Meeting of the American Society of Pharmacognosy (ASP) in Alexandria, VA on Aug. 5-9, 2006 are invited to attend this one - day symposium.



CCC2006 will be dedicated to the memory of the late **Dr. Edward Chou**, who facilitated the spread and use of the CCC technology throughout the world with the CCC instrumentation provided by the Pharma-Tech Research Corporation, Baltimore, MD.

Abstracts

One-page abstracts using the template from www.ccc2006.org are invited for original work involving any area of CCC and related techniques. The abstracts should contain a title, author(s) author's affiliation, and a summary of the work to be presented. Submit electronic file in RTF or DOC format to: itoy2@mail.nih.gov by April 30th, 2006.



Conference Papers

Presenters are invited to submit full papers of their work for inclusion in a special issue on CCC of the *Journal of Chromatography A* scheduled for publication in the Spring/Summer of 2007. Instructions for authors will be provided.

Important Dates

April 30, 2006	Deadline for receipt of Abstracts
May 15, 2006	Notification of acceptance
July 31, 2006	Deadline for registration
June 15, 2006	Announcement of conference program
Aug. 8-11, 2006	Conference
Aug. 10, 2006	Symposium
Sept. 30, 2006	Deadline for receipt of conference papers for the <i>J. Chromatogr. A</i> special issue

Conference Location

CCC2006 will be held in the Lister Hill Center Auditorium on the NIH campus. The Auditorium is a 10-15 min. walk from the Medical Center Metro Station (on the Red line).

Parking on the NIH Campus is limited.

Accommodations

Reservations at the following hotels can be made at special conference rates:

1. American Inn (ca 0.5 mile from NIH)
8130 Wisconsin Ave., Bethesda, MD 20814
Phone: 1.800.323.7081; 301.656.9300
Fax: 301.656.2907

Small double-bed room: \$ 105.00 + tax

Standard double-bed room: \$ 139.00 + tax

Note: only 30 rooms are available for CCC2006 attendees.

2. Marriott International (ca 1 mile from NIH)
5151 Pooks Hill Rd., Bethesda, MD 20814
Phone: 1.800.228.9290 Fax: 301.897.4156

Single or double bed room: \$ 145.00 + tax

Please directly reserve your rooms under "CCC2006" in order to receive the discount rate. Hotels provide transportation to and from the closest Metro station and NIH.

Transportation

Reagan National Airport (DCA)

Cost of taxi service to Bethesda: \$30.00 - \$35.00.

Metro: From the airport station, take the Yellow Line in the direction of Mt. Vernon Square/UDC to the Gallery Place stop. From Gallery Place, take the Red Line in the direction of Shady Grove/Grosvenor and stop at the station closest to your hotel, (Bethesda Station for American Inn and Grosvenor Station for Marriott International).

Dulles International Airport (IAD)

Cost of taxi service to Bethesda: \$40.00 - \$45.00

No Metro service available

Shuttle vans operate regularly.

Baltimore/ Washington International Airport (BWI)

Cost of taxi service to Bethesda: \$50.00 - \$55.00

No Metro service available

Shuttle vans operate regularly.

Metro Services:

<http://www.wmata.com/metrorail/systemmap.htm>

Washington DC area:

<http://digitalcity.netscape.com/washington>

Registration

There is no fee to attend the CCC2006 meeting, but registration is required (deadline: July 31, 2006). To register, e-mail itoy2@mail.nih.gov; to obtain additional information, visit <http://www.ccc2006.org>.

Tentative Program for CCC2006 Comprehensive Symposium on August 10, 2006

(alphabetical order)

Per Ake Albertsson, Ph.D.
Biochemistry Chemical Center
Lund University, Sweden

"Partition of biopolymers with polymer phase system"

Alain Berthod, Ph.D.
University of Lyon 1, France

"Mechanism of countercurrent chromatography"

Kurt Hostettmann, Ph.D.
Laboratoire de pharmacognosie et
Phytochimie, Ecole de Pharmacie
Geneve-Lausanne, Universite de Geneve
Switzerland

"CCC of natural products"

James B. McAlpine, Ph.D.
Ecopia BioScience, Inc.
Montriel, Quebec, Canada

"Drug discovery by CCC"

Hisao Oka, Ph.D.
Kinjogakuen University
Faculty of Pharmacy, Nagoya, Japan

"CCC/MS"

Ian A. Sutherland, Ph.D.
Brunel Institute of Bioengineering
Brunel University, United Kingdom

"Industrial scaling-up of CCC"

Peter Winterhalter, Ph.D.
Institute of Food Chemistry
Technical University of Branunschweig
Braunschweig, Germany

"Application of CCC to food chemistry"

Tian-You Zhang, Prof.
Beijing New Technology Application
Beijing, China

"CCC of Chinese medicinal herbs"

Chairperson

Dr. Yoichiro Ito

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Prof. Hisao Oka, Japan

Dr. Alan L. Scher, United States

Dr. Yoichi Shibusawa, Japan

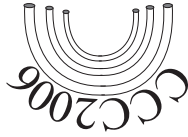
Dr. Kazufusa Shinomiya, Japan

Prof. Boris Y. Spivakov, Russia

Prof. Ian A. Sutherland, United Kingdom

Prof. Peter Winterhalter, Germany

Prof. Tian-You Zhang, China



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Please note the following changes:

- New dates for CCC2006, August 8-11, 2006
- Registration deadline: July 31, 2006
- Registration fee is not required