

From: Focant, Jef
Sent: Monday, June 09, 2003 10:55 AM
To: All - NCEH
Subject: DLS Seminar on GCxGC-TOFMS

DLS - Division Seminar
**Comprehensive Two-Dimensional Gas
Chromatography Time-of-Flight Mass
Spectrometry**
A New Paradigm for Human Biomonitoring
Donald G. Patterson, Jr.
Jean-François Focant

Tuesday, June 10, 2003
11:30am, Building 102, room 2201/2202.

ABSTRACT

Comprehensive two-dimensional gas chromatography (GCxGC) is a relatively new and powerful technique, which offers very high separation power. The enhanced peak capacity and sensitivity of GCxGC further make it a method of interest for the separation of complex mixtures of low concentration compounds such as environmental toxicants. Additionally, the use of Time-of-flight mass spectrometry (TOFMS) as a detection device offers an extra dimension to the system via mass spectral deconvolution, which makes GCxGC-TOFMS an integrated procedure that has unsurpassed analytical discrimination potential.

The presentation will highlight the history of the research on GCxGC at CDC over the last 10 years. Theoretical aspects and principles will further be discussed. Current instrumentation will be described and recent CDC applications will be presented through practical separation examples.