

TB: 21st Century Process Development Tools

To Use this Index: Scroll down or use the bookmarks in the left-hand frame to move to a new location in this index. Click on a [blue paper title](#) to view that paper. To return to this index after viewing a paper, click the PREVIOUS MENU bookmark in the left frame.

Session 120 - Tools

Chair: Glen W Wheeler

Vice Chair: Milan Maric

- 120a [A Right First Time Approach to Early Process Development](#)
Dr. Linas Mockus and Dr. Prabir Basu
- 120b [Industry Specific Benchmark Metrics -- Integration into Land use Choices](#)
Earl R. Beaver
- 120c [Integrated Multiscale Process Units with Locally Structured Elements](#)
Michael Matlosz
- 120d [A Dynamic Self-Optimizing PFR Embedded within a Steady-State Process Simulation](#)
James E Smith, Jr. and Anh Nguyen

Session 121 - Panel Discussion - From the University to the Factory - Successful Collaborations in Innovation *

Chair: Annette A Johnston

Vice Chair: Douglas Lenz

Session 122 - Industrial Implementation of Preparative Chromatography

Chair: Kathleen Mihlbachler

Vice Chair: Anita M Katti

- 122b [Productivity Optimisation in Chiral Chromatographic Processes](#)
Geoffrey B Cox, S Khattabi, J K Lee and R W Stringham
- 122e [Methods to Control Batch Integrity in SMB Chromatography for Linear Systems](#)
Sungyong Mun and Nien-Hwa Linda Wang

Session 123 - Innovative Design Methodologies

Chair: Yinlun Huang

Vice Chair: Frank van Lier

- 123b [Debottlenecking the Ammonia Synthesis Reactor System with the aid of Attainable Region Theory](#)
A. Moodley, S. Kauchali, D. Hildebrandt and D. Glasser
- 123e [Development of a hierarchical fuzzy model for the analysis of inherent safety focused on process simulation](#)
M. Gentile, W.J. Rogers and M. S. Mannan

Session 124 - Elegant Experimental Methodology in Pilot Plants

Chair: Marc Privitera

Vice Chair: Brian K Johnson

- 124f [Suspending Insoluble Solids in Waste Tanks with Shrouded Axial Impeller Mixers](#)
M. R. Poirier, M. R. Powell and H. Gladki

Session 239 - Membrane Process Design and Scale-up Considerations

Chair: Glenn Lipscomb

Vice Chair: Robert A Cross

- 239a [Study of membrane system performance and HAZOP analysis in gas separation and reaction](#)
Gabriele Clarizia, Giovanni Chiappetta and Enrico Drioli

239d [Reverse Osmosis to Concentrate Ammonium Nitrate in Condensates, from Laboratory Studies to Industrial Scale Design and Operation](#)
Peter Eriksson

Session 470 - Process Development Tools for the Pharmaceutical and Fine Chemical Industries

Chair: Shailendra Bordawekar

Vice Chair: Mayur Lodaya

470f [Integrating Design and Control with Six-Sigma for Bioprocessing Applications](#)
Eyal Dassau, Daniel R. Lewin

* These papers were unavailable at the time of publication.