

Schedule: « New ways to do chemistry - Emerging technologies for synthetic methodology »

The workshop will focus on five specific topics: 1) AI-assisted synthesis, 2) Photo/electrochem Electron transfer, 3) Automated synthesis, robotics, 4) High throughput/flow, microfluidics, 5) Theory, data analysis/predictive reaction development. The speakers will address at least one of them in their talk.

Venue: ULB - Campus Plaine - Quartier Jaune - Building N.O. - 5th Floor - Salle Solvay

Monday April 24, 2023 – Chairman Patrick Maestro			
09:30 - 10:00	Registration and starting coffee		
10:00 - 10:20	Ben Feringa & Marc Henneaux	Brussels	<i>Introduction and context</i>
10:20 - 11:00	Franck Glorius	Muenster	<i>On discovery and sensitivity in (photo)catalysis</i>
11:00 - 11:40	Veronique Van Speybroeck	Gent	<i>Resolving complex catalytic cycles with modeling techniques bridging length and time scales</i>
11:40 - 12:20	Véronique Gouverneur	Oxford	<i>New ways to do chemistry - Emerging technologies for synthetic methodology</i>
12:20 - 13:00	Robert Pollice	Groningen	<i>Artificial Molecular Design</i>
13:00 - 14:00	Sandwich lunch and informal discussions		
14:00 - 14:40	Lee Cronin	Glasgow	<i>Foundations of Digital Chemistry – Chemputation</i>
14:40 - 15:20	Bartosz Grzybowski	Ulsan	<i>Algorithmic synthesis planning and reaction discovery</i>
15:20 - 16:00	Andrew J. De Mello	Zurich	<i>Microfluidics for high-throughput chemistry & biology</i>
16:00 - 16:30	Coffee break and informal discussions (9 th Floor)		
16:30 – 17:30	Philippe Schwaller	Lausanne	<i>AI-accelerated Organic Synthesis – Regular Solvay Chemistry Colloquium</i>
17:30 - 17:45	Break and installation of posters		
17:45 - 20:00	Poster session and buffet of Belgian gastronomic specialties		

Tuesday April 25, 2028 – Chairwoman Hennie Valkenier			
10:00 - 10:40	Peter Seeberger	Postdam	<i>Automated Glycan Assembly as a Basis for Life and Material Science Applications</i>
10:40 - 11:20	Tim Donohoe	Oxford	<i>To Leave and then Return? Hydrogen Borrowing Catalysis and Organic Synthesis</i>
11:20 - 12:00	Berent Smit	Lausanne	<i>Capturing chemical intuition</i>
12:00 - 12:40	Matt Sigman	Salt Lake City	<i>Data Science meets Reaction Optimization</i>
12:40 – 12:45	Group photo		
12:45 - 13:30	Sandwich lunch and informal discussions		
13:30 - 14:10	Klavs Jensen	Boston	<i>Accelerating chemical discovery and development with machine learning and automation</i>
14:10 - 14:50	Burkhard König	Regensburg	<i>Chemical Photosynthesis - towards ideal chemical transformations</i>
14:50 - 15:30	Martin Burke	Urbana-Champaign	<i>Generalizing small molecule synthesis</i>
15:30 - 16:10	Phil Baran	San Diego*	<i>Simplifying Synthesis with Electricity</i>
16:10 - 16:30	Coffee break		
16:30 - 17:10	Corinne Gosmini	Palaiseau	<i>Cobalt-catalyzed cross-coupling reactions</i>
17:10 - 17:50	Amandine Cuenca	Solvay SA	<i>Applications of robotics and high throughput screening for industrial R&D</i>
18:00 – 18:30	Public transportation to downtown Brussels		
18:30 – 19:30	Free time downtown Brussels to drink a beer, to visit or to buy chocolates		
19:30 - 23:00	Banquet downtown Brussels		

* San Diego 6:30 pm

Wednesday April 26, 2023 – Chairman Gert Desmet

10:00 - 10:40	Pascal Miéville	Lausanne	<i>Multidisciplinary challenges on the way to a fully autonomous chemistry laboratory at Swiss CAT+</i>
10:40 - 11:20	Richard Brown	Southampton	<i>Organic electrosynthesis in flow reactors</i>
11:20 - 12:00	Jean-Christophe M. Monbaliu	Liège	<i>New perspectives at the confluence of technology and organic synthesis</i>
12:00 - 13:30	Sandwich lunch and informal discussions		
13:30 - 14:10	Anne De Wit	Brussels	<i>Chemical pattern formation in flows</i>
14:10 - 14:50	Ludovic Troian-Gautier	Louvain-la-Neuve	<i>Controlling Excited-State Reactivity Towards More Efficient Energy Conversion</i>
15:30 -	Departure		