



# Official Opening

## RC Chemical Sciences and Sustainability

March 25th to 27th, 2026

Mining Museum Bochum

# RESOLV

Diving into the next era



# RESOLV

RUHR EXPLORES SOLVATION  
CLUSTER OF EXCELLENCE - EXC 2033

## Wednesday, 25th March 2026 – Morning

### 10:00 to 10:05 – Welcome speech

**Martin Paul** (Rector Ruhr University Bochum)

### 10:05 to 10:15 – Minister speech

**Ina Brandes MdL** (Minister of Culture and Science of the State of North Rhine-Westphalia)

### 10:15 to 10:25 – Research Center Chemical Sciences and Sustainability

**Gabriele Sadowski** (Director RC Chemical Sciences and Sustainability)

### 10:25 to 11:25 – Panel discussion „Beyond Boundaries: Research Center“

- **Jörg Behler** (Theoretical Chemistry, RC Chemical Sciences and Sustainability)
- **Alessandro Curioni** (Vice President IBM Europe and Africa, Director IBM Research Lab)
- **Martina Havenith** (Physical Chemistry, RC Chemical Sciences and Sustainability, Spokesperson RESOLV)
- **Edvardas Narevicius** (Experimental and Theoretical Quantum Optics, RC Chemical Sciences and Sustainability)
- **Ralph Marquardt** (Senior Vice President & General Manager Innovation Networks & Transformation Germany, Evonik Operations)
- **Moderator: Juan Rigall** (Santiago Advisors)

### 11:25 to 13:35 – Champagne reception and lunch



### Wednesday, 25th March 2026 – Afternoon

**13:35 to 14:10 – RESOLV – Diving into the next era**

Martina Havenith (Spokesperson Cluster of Excellence RESOLV)

**14:10 to 14:55 – Amorphous ice: New insights from molecular to planetary scales**

Jennifer Bergner (UC Berkeley, USA)

**14:55 to 15:40 – Solvent effects on photochemical pathways for organic constituents of atmospheric aerosols**

Andrew Orr-Ewing (University of Bristol, UK)

**15:40 to 16:25 – Coffee break**

**16:25 to 17:10 – Exploiting Frustrated Lewis Pairs for group V chemistry**

Douglas Stephan (University of Toronto, Canada)

**17:10 to 17:55 – Towards sustainable Pd catalysis by deciphering complexity in cross-coupling reactions**

Ian Fairlamb (University of York, UK)

**18:30 to 23:00 – Conference dinner at Restaurant Livingroom**



### Thursday, 26th March 2026 – Morning

**09:00 to 09:45 – Catalysis in context: from solvent to confinement**

Leticia Gonzalez (University of Vienna, Austria)

**09:45 to 10:30 – Specific ion effects at the surface of water**

Huib Bakker (AMOLF, Netherlands)

**10:30 to 11:15 – Coffee break**

**11:15 to 12:00 – Beating the viscosity-conductivity inverse relation barrier to create a breakthrough electrolyte liquid for emerging battery applications – quantum mechanics may hold the key**

Mark Tuckerman (New York University, USA)

**12:00 to 12:45 – Confined water through the lens of machine learned atomistic simulations**

Christoph Schran (University of Cambridge, UK)

**12:45 to 12:55 – Greetings Mining Museum Bochum**

Tim Pfenner (Commercial Managing Director, Mining Museum Bochum)

**12:55 to 15:15 – Lunch break & coffee**

**13:15 to 13:55 – Guided tours: 1. Visitor's Mine, 2. Shift Time**

**13:30 to 14:10 – Guided tour: 3. Visitor's Mine**

**13:30 to 14:30 – Mining tower: open for guests of the RESOLV event**



### Thursday, 26th March 2026 – Afternoon

**14:15 to 16:00 – Quantifying charge transfer and nuclear quantum effects in water**

Sylvie Roke (EPFL, Switzerland)

**16:00 to 16:45 – Amorphous drug delivery systems – important thermodynamic and kinetic aspects**

Lynne S. Taylor (Purdue University, USA)

**16:45 to 17:30 – Aspects of sustainability in drug delivery**

Thomas Rades (University of Copenhagen, Denmark)

**17:45 to 18:25 – Guided tours: 4. Visitor's Mine, 5. Shift Time**

**18:00 to 18:40 – Guided tour: 6. Shift Time**

**17:45 to 18:45 – Mining tower: open for guests of the RESOLV event**

**18:45 to 22:00 – Dinner at the Mining Museum, room DMB+**



### Friday, 27th March 2026 – Morning

**09:00 to 09:15 – Opening & special thanks to Wolfram Sander and Roland Winter**

Martina Havenith (Spokesperson Cluster of Excellence RESOLV)

**09:15 to 10:00 – Organic chemistry of relevance to astrochemistry: synthesis, spectroscopy and structure determination**

Robert J. McMahon (University of Wisconsin, USA)

**10:00 to 10:45 – Strained organic molecules: pushing the envelope**

Dasan Thamattoor (Colby College, USA)

**10:45 to 11:30 – Coffee break**

**11:30 to 12:15 – Modulating biomolecule-water interactions with pressure to explore functional landscapes**

Cathy Royer (Rensselaer Polytechnic Institute, USA)

**12:15 to 13:00 – Joining forces in the chemical biology of lipoproteins ... and more**

Herbert Waldmann (Max Planck Institute of Molecular Physiology, Germany)

**13:00 to 14:30 – Lunch break**



**Friday, 27th March 2026 – Afternoon**

**14:30 to 15:15 – Unique reaction driven by spin manipulation**

Manabu Abe (University of Hiroshima, Japan)

**15:15 to 16:00 – Frustrated Lewis Pair activation of methyltrioxorhenium produces a homogenous model for heterogenous metathesis catalysis**

Peter Chen (ETH Zurich, Switzerland)

**16:00 to 16:45 – Coffee break**

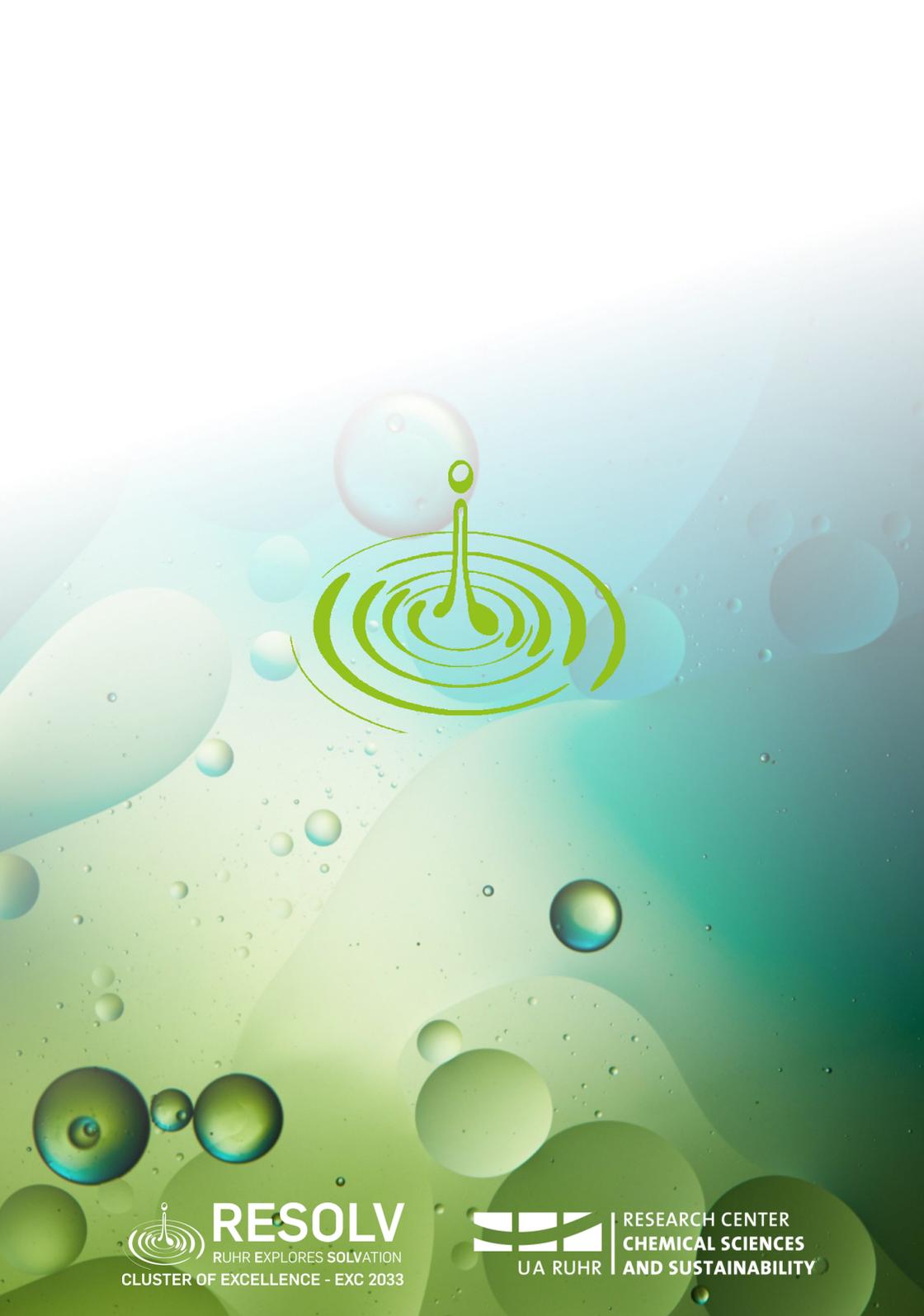
**16:45 to 17:30 – Hydrogen bonding motifs in hydroxy- and carboxy-functionalized ionic liquids**

Ralf Ludwig (University of Rostock, Germany)

**17:30 to 18:15 – Insulin's sticky solvation saga: from amyloid knots to liquid-liquid phase separation drops**

Wojciech Dzwolak (University of Warsaw, Poland)

**18:15 – Wrap up & closing remarks**



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AND SUSTAINABILITY