



9th GDR SolvATE 2035 Meeting

Solvents and Solvation:
Fundamentals, Interfaces, and
Interdisciplinary Applications

Book of Abstracts

Lille, France
28–29 September 2026

Welcome

It is our great pleasure to welcome you to the 9th Scientific Meeting of the GDR SolVATE 2035, held at the Institut Michel-Eugène-Chevreul (UAR 2638), Cité Scientifique, Avenue Paul Langevin, Villeneuve d'Ascq, on 28–29 September 2026.

The GDR SolVATE brings together a broad scientific community interested in the fundamental and applied aspects of solvents, solvation, and molecular interactions. These meetings provide a privileged forum for exchanging ideas, sharing recent results, and fostering collaborations between researchers working across chemistry, physics, materials science, biology, and pharmaceutical sciences.

The 2026 meeting reflects this diversity through contributions addressing the different scientific themes of the GDR, including **solvents in chemistry, interfaces and nanoconfinement, and applications in biological, pharmaceutical, and agrochemical systems**. Experimental, theoretical, and computational approaches are represented, illustrating the increasingly interdisciplinary character of research on complex liquids, solutions, interfaces, and molecular organization.

A particular objective of these meetings is to encourage interaction between established scientists, early-career researchers, postdoctoral fellows, and PhD students. The programme therefore combines invited lectures, oral communications, poster presentations, and ample opportunities for informal scientific discussion. We hope that these exchanges will stimulate new ideas and contribute to the development of collaborations within and beyond the GDR SolVATE community.

We are particularly grateful to our invited speakers for sharing their expertise and perspectives, and to all participants who have contributed oral and poster presentations. We also warmly thank the members of the scientific and organizing committees, our institutional partners, and our sponsors for their support in making this meeting possible.

The Organizing Committee gratefully acknowledges the support of LASiRe (UMR 8516), UMET (UMR 8207), the Institut Michel-Eugène-Chevreul (UAR 2638), the Société Chimique de France - Réseau des Jeunes Chimistes Hauts-de-France, and the Chemistry Department of the University of Lille.

This Book of Abstracts gathers the scientific contributions presented during these two days and provides an overview of the breadth and vitality of research carried out within the SolVATE community.

We wish all participants a stimulating meeting, fruitful discussions, and an enjoyable stay in Lille.

The Organizing Committee

Natalia Correia, Frederic Affouard and Abdenacer Idrissi

9th Scientific Meeting of GDR SolVATE 2035

Villeneuve d'Ascq, 28–29 September 2026.

Scientific Programme

9th GDR SOLVATE 2035 Meeting · Lille/Villeneuve d'Ascq · 28–29 September 2026

Monday, 28 September 2026			
Time	Type / Session	Speaker / Chair	Title
08:30–09:15	Welcome and registration		
	Session 1 · Chair: Denis Morineau		
09:15–09:45	Invited lecture	Marcello Sega	Structure and transport properties at liquid interfaces
09:45–10:05	Oral communication	B. R. de Moraes	Thermodynamics of Mg ²⁺ coordination by Glymes
10:05–10:25	Oral communication	Riccardo Spezia	Theoretical modelling of high-pressure Diels-Alder reactions
10:25–11:00	Coffee break		
	Session 2 · Chair: Carine Michel		
11:00–11:30	Invited lecture	Julien Lam	Recent progress in atomistic simulations for tracking nucleation events
11:30–11:50	Oral communication	Denis Morineau	Ice-Induced Structural Reconfigurations in Nanoconfined Water-Glycerol Mixtures
11:50–12:10	Oral communication	Y. Kviring	NaCl interaction with supercooled water
12:10–12:30	Oral communication	F. Louis	Environmental fate of organic contaminants using in silico tools
12:30–14:00	Lunch		
	Session 3 · Chair: Celine Toubin		
14:00–14:30	Invited lecture	Tom Leyssens	Solventless Symmetry Breaking: Mechanochemistry for Deracemization and Chiral Induction
14:30–14:50	Oral communication	Polycarpes Tchagwag Fogang	Thermokinetic Data in the Aqueous Phase for Cs and Sr Compounds
14:50–15:10	Oral communication	D. Dastan	Fine-Tuned Force Fields for Solvated Chromophores
15:10–15:30	Oral communication	Carine Michel	Modeling reactions at metal/liquid interfaces
15:30–16:40	Coffee break and poster session		
	Session 4 · Chair: Frederic Affouard		
16:40–17:00	Oral communication	Zahraa Chouaib	Theoretical Investigation of the Reactivity of Organosulfur Compounds with OH Radical
17:00–17:20	Oral communication	Anjali Gaur	Conformer population in aqueous ethylene glycol (EG) and their selection at the liquid vapor interface using a refined non polarizable force field and Machine Learned models
17:20–17:40	Oral communication	Swetha Nair	A Theoretical Study of Orientational Correlations in Water and in Electrolyte Solution

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Tuesday, 29 September 2026			
Time	Type / Session	Speaker / Chair	Title
	Session 5 · Chair: Natalia Correia		
09:00–09:30	Invited lecture	Tatiana Starciuc	Contribution of Dielectric Spectroscopy in Scrutinizing Protein Stabilization Mechanisms and the Role of Water
09:30–09:50	Oral communication	Marie Plazanet	Supramolecular organization and abnormal rheological behavior in an ionic liquid based aqueous biphasic system
09:50–10:10	Oral communication	Elizaveta Gigiadze	Effect of trehalose concentration on the solvation and dynamics of Thymosin
10:10–10:40	Coffee break		
	Session 6 · Chair: Marie Plazanet		
10:40–11:00	Oral communication	Adrien Lerbret	Influence of polyethylene glycol on C-phycocyanin stability
11:00–11:20	Oral communication	Elizaveta Grishaeva	Orange Carotenoid Protein: computational and spectroscopic studies on the role of the internal water
11:20–11:40	Oral communication	Artem Shaguring	Supercritical CO ₂ -Induced Interfacial Softening in Curcumin Polymorphs
11:40–12:00	Oral communication	F. Puga Montesdeoca	The Role of Solvent in the synthesis channel-like Carbamazepine cocrystals: A case study
12:00–12:15	Closing		
12:15–13:30	Lunch		