

# ICG Spring School 2026 - April 19-24 2025 ( Lloret del Mar, Spain)

Glass for a sustainable future: How can glass scientists help meet the challenge

Organizing committee : S. Schuller, T. Charpentier, F. Méar, M. Lancry, L. Cormier, D. de Ligny, N. Crémon, A. Goel, R. Pokorny, J. McCloy, A.C. Martins Rodrigues, Y. Yue, J. Du, D. Neuville

TC 03, 05, 07, 18, 23, 27, 28

Monday - April 20 AM

## The challenges of decarbonizing the glass industry

08:30	Introduction	Organizing committee	
08:40	The challenges of decarbonizing the glass industry	Erik Muijsenberg, Glass Service (Czechia) and ICG Vice President	Regulation point of view
09:20	Decarbonation of industrial Glass melting	Manoj Kumar Choudhary, THE OHIO STATE UNIVERSITY, Columbus, OH (US)	Industrial point of view
10:00	Recycling in the glass industry (glass bottles): challenges, issues and latest advances	Need to be confirm	Industrial point of view
10:40	<b>Coffee break</b>		
11:10	The challenges of decarbonizing	Vasco Sousa, PICVISA (Spain)	Industrial point of view
11:50	Glass fiber recycling – technology & EU regulatory trends supporting a circular economy approach	Anne Berthereau, Owens Corning (France)	Industrial point of view
12:30	Schotts perspectives on sustainability in the speciality glass industry	Michael Hahn, Schott (Germany)	Industrial point of view
13:10	<b>Lunch</b>		

Monday - April 20 PM

## Basic science on glass fabrication

14:00	Basic data on glass: link between structure and properties	Daniel Neuville, IPGP (France)	Academic point of view
14:40	Basic data on electrical conductivity on molten glass (title need to be confirm)	Steve W. Martin, Iowa State University (US)	Academic point of view
15:20	Glass and glass-ceramic : formulation	John McCloy, Pullman University (US)	Academic point of view
16:00	Glass synthesis: Focus on oxyde glass	Sophie Papin, Saint Gobain (France)	Academic point of view
16:40	<b>Coffee break</b>		
17:20	Experimental and Mathematical Analysis of Primary Foaming during Glass Melting - towards Foaming Free Batches and Improved CFD Models	Richard Pokorny UCT Prague, Faculty of Chemical Technology (Czech Republic)	Academic point of view
18:00	From Rock to Glass Fibers	Yuanzheng Yue - Aalborg University (Denmark)	Academic point of view
18:40	<b>Teasing poster students</b>		
20:30	<b>Dinner</b>		

Tuesday - April 21 AM

## Simulation approaches and machine learning

08:30	Modern modeling and computational methods for new glass development: from ab initio, molecular dynamics to machine learning	Jincheng Du, University of North Texas (US)	Academic point of view
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09:10	Perspectives on molecular dynamic for glass melt properties	Thibault Charpentier, CEA Saclay (France)	Academic point of view
09:50	Machine learning and statistical approaches for accelerated glass development	N M Anoop Krishnan, Indian Institute of Technology Delhi (India)	Academic point of view
10:30	<b>Think tank: How can simulation and machine learning be applied to the design of new glasses?</b>	<b>Thibault Charpentier, Anoop Krishnam, Jincheng Du</b>	
11:00	<b>Coffee break</b>		

### Current and future industrial glass furnace technologies

11:30	Sustainable glass-melting concepts – How to deal with physical limits?	Christian Roos, Aachen University, Institut of Mineral Engineering (Germany)	Academic point of view
12:10	Bridging Today and Tomorrow: Industrial Furnace Design in Transition	Malte Sander, Glass Service (Germany)	Industrial point of view
13:00	<b>Lunch</b>		
<b>Tuesday - April 21 PM</b>			

### Current and future industrial glass furnace technologies

14:00	Digital Twin of Glass Melting Furnaces: Architecture and Use Cases	Gökçe Yüce, Sicecam (Turkey)	Industrial point of view
14:40	Electric furnace technology and control by IA	Corinne Claireaux , CelSian (Nederland)	Academic point of view
15:20	Energy efficiency increase through hybridation of a tank producing green glass for glass-ceramic	Emmanuel Lecomte - Euroreka (France)	Industrial point of view
16:00	Fundamentals of Electric Glass Melting	Manoj Kumar Choudhary, Ohio State University, Columbus, OH (US)	Academic point of view
16:40	<b>Coffee break</b>		
17:10	NextGen hybrid furnace – Operational experience	Joris Goossens, Ardagh (Germany)	Industrial point of view
17:50	Oxygen control in industrial glass (Gaz changing, H2, O2,...) biogas utilisation - Need to be confirm	Francois Boland (AGC)	Industrial point of view
18:30	<b>18:30 - 20:00 Poster session #1 and aperitif</b>		
20:00	<b>Dinner</b>		

### Wednesday - April 22 AM

	<b>Current and future nuclear glass furnace technologies</b>		
08:30	Nuclear furnace technology - past, present and future - Need to be confirm	Need to be confirm (Japan)	Academic point of view
09:10	Geomelt and in situ vitrification technology - Feedback experience	Cyrille Veronneau, VEOLIA	Industrial point of view
09:50	Cold crucible technology - Feedback experience	Emilien Sauvage, CEA/ISEC (France)	Academic point of view
10:30	<b>Coffee break</b>		
	<b>Glass melt properties issues</b>		
11:00	Redox Issues and relation with color	Daniel Neuville, IPGP & Laurent Cormier - Sorbonne University (France)	Academic point of view
11:40	Redox control on industrial scale	Annabelle Laplace, CEA/ISEC (France)	Industrial point of view

12:20	Think tank: How can redox be managed in new materials and furnaces ?	Daniel Neuville, Laurent Cormier	
13:00	<b>Lunch and free afternoon</b>		
20:00	<b>Dinner</b>		
<b>Thursday - April 23 AM</b>			
<b>Eco-responsible glass production</b>			
08:30	Glass recycling in historic period - influence on glass coloring	Nadine Schibille, Université Orléans (France)	Academic point of view
09:10	Life cycle assessment: the case of cullet use and secondary raw material	Antonella Sola, University of Modena (Italy)	Academic point of view
09:50	Energy savings associated with the use of cullet	Corinne Claireaux , CelSian (NederLand)	Academic point of view
10:30	<b>Coffee break</b>		
11:00	Used of Secondary raw material : how to formulate new composition of glass	Daniel Neuville, Laurent Cormier, Nadine Schibille (France)	Academic point of view
11:40	Investigation of melting and fining /foaming behaviors in E-Glass batches with alternative raw materials	Gulin Demirok, Sicecam (Turkey)	Industrial point of view
12:20	<b>Think tank: What are the constraints involved in producing eco-responsible glass?</b>	Ana C. Martins Rodrigues, Sophie Schuller	
13:00	<b>Lunch</b>		
<b>Thursday - April 23 PM</b>			
14:00	<b>14:00 - 16:00 - Poster session #2</b>		
<b>Challenges for high-performance glasses</b>			
16:00	Challenge for lighter glass - Glass strengthening methods	Dominique de Ligny, FAU university (Germany)	Academic point of view
16:40	<b>Coffee break</b>		
17:10	Challenge of Nuclear waste glasses	Ashutosh Goel , WSU (US)	Academic point of view
17:50	Challenge of the Self-healing high-temperature functional glass for hydrogen fuel cell sealing	Francois Méar, LilleUniversity (France)	Academic point of view
18:30	<b>Poster price</b>		
20:00	<b>Dinner</b>		