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 comitee : S. Schuller, T. Charpentier, F. Méar, M. Lancry, L. Cormier, D. de Ligny, N. Créon, 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 comitee	
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	***Coffee break***		
11:10	The challenges of decarbonizing CORNING view	CORNING - Need to be confirm (US)	Industrial point of view
11:50	Glass fiber recycling – technology & EU regulatory trends supporting a circular economy approach	Anne Berthereau - Owens Corning (France)	Regulation point of view
12:30	SCHOTT perspectives on sustainability in the specialty glass industry	Schott (Germany)	Industrial point of view
13:10	***Lunch***		
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 (titlle need to be confirm)	Steve W. Martin, Iowa State University (US)	Academic point of view
15:20	Glass and glass-ceramic : formulation	John Mc Cloy - 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	***Coffee break***		
17:20	Experimental and Mathematical Analysis of Primary Foaming during Glass Melting - towards Foaming Free Batches and Improved CFD Models	Richard Pokorny (Czech Republic)	Academic point of view
18:00	From Rock to Glass Fibers	Yuanzheng Yue - Aalborg University (Denmark)	Academic point of view
18:40	Process of crystallization and synthesis of glass-ceramics	Laurent Cormier - Sorbonne University (France)	Academic point of view
19:20	**Teasing poster students**		
20:30	***Dinner***		
Tuesday - April 21 AM			
Simulation approches 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
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	Anoop Krishnan, University of Dheli (India)	Academic point of view
10:30	**Think tank: How can simulation and machine learning be applied to the design of new glasses?**	**Thibault Charpentier, Anoop Krishnam, Jincheng Du**	
11:00	***Coffee break***		
Current and future industrial glass furnace technologies			
11:30	Sustainable glass-melting concepts – How to deal with physical limits?	Christian Ross, 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	***Lunch***		
	Tuesday - April 21 PM		
Current and future industrial glass furnace technologies			
14:00	Operation of an industrial glass furnace (float, bottle, etc.) - Energy saving	Sicecam (need to be confirm)	Industrial point of view
14:40	Energy efficiency increase through hybridation of a tank producing green glass for glass-ceramic	Emmanuel Lecomte - Euroreka (France)	Industrial point of view
15:20	Fundamentals of Electric Glass Melting	Manoj Kumar Choudhary, THE OHIO STATE UNIVERSITY, Columbus, OH (US)	Academic point of view
16:00	Electric furnace technology and control by IA	Corinne Claireaux , CelSian (NederLand)	Academic point of view
16:40	***Coffee break***		
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	Industrial point of view
18:30	**18:30 - 20:00 Poster session #1** and aperitif		
20:00	***Dinner***		
Wednesday - April 22 AM			
	Current and future nuclear glass furnace technologies		
08:30	Nuclear furnace technology - past, present and future - Need to be confirm	Need to be confirm	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	***Coffee break***		
	Glass melt properties issues		
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	***Lunch and free afternoon***		
20:00	***Dinner***		
Thursday - April 23 AM			
	Eco-responsible glass production		
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	Anna Maria Ferrari , Modane University (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	***Coffee break***		
11:00	Eco-design of new glass composition with secondary raw material	Laurent Cormier, Daniel Neuville, Nadine Schibille 3VER (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	**Think tank: What are the constraints involved in producing eco-responsible glass?**	**Ana C. Martins Rodrigues, Sophie Schuller**	
13:00	***Lunch***		
Thursday - April 23 PM			
14:00	**14:00 - 16:00 - Poster session #2**		
Challenges for high-performance glasses			
16:00	Challenge for lighter glass - Glass strengthening methods	Dominique de Ligny, FAU university (Germany)	Academic point of view
16:40	***Coffee break***		
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	**Poster price**		
20:00	***Dinner***		