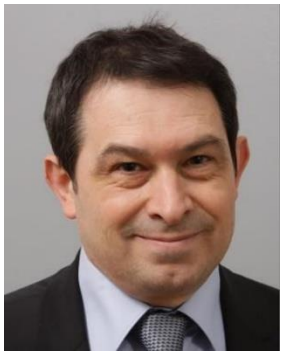
Session	Decarbonizing the Glass Industry (I)
Date	APRIL 10, 2025
Time (CET)	15:00 - 15:15
Chair	Serkan Şahin



Hybrid Melting Technology: A Challenge for Glass Furnace Lifetime

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Biography

Dr. Michel Gaubil is graduate as Material Sciences Engineer from Polytech and complete his PHD in Material Physics and Chemistry Sciences at CRNS, CEMHTI (extreme conditions and material sciences: High temperature and Irradiation) in Orleans University. He joined Saint Gobain R&D organization and occupied different positions in SEFPRO (Refractory Material for glass Industry) department. He managed SEFPRO R&D department for fused cast products Worldwide and also Competencies Research Laboratory HERMMES team in Saint Gobain Research Provence R&D center. Michel is now Director for Refractory Solutions Engineering Services. Michel is working, more than 30 years, in ceramics for glass industry.

Abstract

The first key challenge of the glass industry for the years to come is to Achieve low carbon glass production. Glass companies have announced clear targets to reach carbon-neutrality in the coming decades. This challenge is facing many obstacles. The most significant one being the switch to renewable energy sources. Among them, glass furnace electrification will play a significant role for many players in the industry. Switching from fuels to electrical power on glass furnace involves high impact on refractories material lifetime. We will discuss, with CFD and corrosion simulation data support from SEFPRO, what could be the evolution of soldier block corrosion profile and bottom paving. We will analyze the contribution of numerical simulation to compare different situation. Moreover, in order to limit the impact on glass furnace lifetime we will propose different refractory solution including Fused Cast AZS such as ER 2010 RIC, ER 1699RS, Xeebost. Finally, we will address how monitoring solutions can support hybrid furnace management.