Contribution ID: **21** Type: **Oral Presentation**

Mathematical modelling of slag foaming of EAF slags

Wednesday 13 May 2026 08:30 (20 minutes)

Slag foaming is a very important phenomena in the operation of the Electric Arc Furnace due to multiple benefits. It has been extensively investigated from an academic view point, however there are still many unresolved issues dealing with the real conditions that promote these phenomena. I many of the previous investigations the gas is artificially injected, rather than created at the interior of the slag or metal phases. The CO bubbles, which are responsible of the foaming phenomena can be created both in the slag due to FeO being reduced by injected carbon particles or by reactions at the slag/metal interface. This work reports an experimental work focuses on slag foaming due to CO produced at the slag/metal interface, with variations on FeO and basicity.

Speaker Country

China

Speaker Company/University

USTB

Primary author: Mr LIU, Huan (USTB)

Co-author: CONEJO, alberto (itm)

Presenter: CONEJO, alberto (itm)

Session Classification: Automation and Digitalization in Electric Steelmaking III

Track Classification: EEC 1 - Technological Advancements: EEC 1.A Innovations in electric arc furnace (EAF) technology