Contribution ID: **166** Type: **Oral Presentation**

The Study of Different Ca Cored Wires on Calcium Treatment Process

Wednesday 13 May 2026 09:10 (20 minutes)

Calcium (Ca) treatment is widely used in ladle metallurgy to modify alumina-based inclusions and improve steel cleanliness. The effectiveness of this process largely depends on the type of Ca-cored wires employed and the refining conditions, which influences dissolution behavior, calcium recovery and ultimately inclusion modification. This study examines two commonly used wire types-pure Ca and CaSi under various refining scenarios in the ladle metallurgy process. Their dissolution behavior and interactions with steel and slag are compared using thermodynamic tools, while their impact on inclusion modification is evaluated based on plant trial data.

Speaker Country

Canada

Speaker Company/University

Kezhuan Gu, Ilia Ushakov, Kagan Keler

Primary authors: USHAKOV, Ilia (ArcelorMittal Maizières Research); Dr GU, Kezhuan (ArcelorMittal Dofasco Global Research and Development Hamilton); Dr KELER, Memduh Kagan (ArcelorMittal Maizières Research)

Presenters: USHAKOV, Ilia (ArcelorMittal Maizières Research); Dr GU, Kezhuan (ArcelorMittal Dofasco Global Research and Development Hamilton); Dr KELER, Memduh Kagan (ArcelorMittal Maizières Research)

Session Classification: Ladle metallurgy and slag control

Track Classification: EEC 1 - Technological Advancements: EEC 1.B Developments in ladle metallurgy and secondary refining