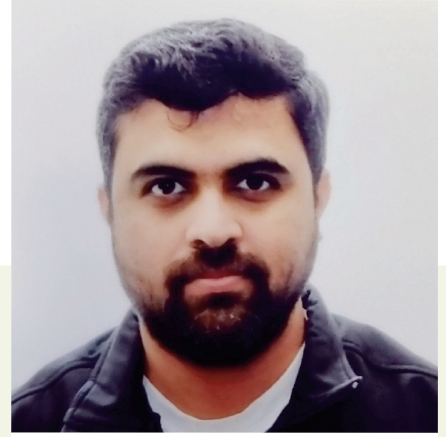


Speaker 4



## Effect of high FeOx containing material dissolution in Hlsarna slag



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### ABSTRACT:

The Hlsarna technology is a low carbon and high energy efficient alternative ironmaking process. The Hlsarna off-gas contains CO<sub>2</sub> in high concentrations, making it CCS/CCU ready. It will emit limited amount of dust; the hot metal contains low phosphorous, and this onestep approach significantly reduces capex and opex. The Hlsarna pilot plant experienced sudden and uncontrolled slag foaming. Slag foaming incidents are unwanted and may disrupt the production. One theory of these foaming incidents is due to accretions containing FeOx falling in the liquid bath. High temperature laboratory experiments were done and analysed using various techniques like SEM, XRF and XRD. Slow dissolution of solid FeOx in a non-foaming Hlsarna slag was observed, which is in contradiction to the sudden slag foaming. Accretion falling in the liquid bath seems not to be the main cause of slag foaming.

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