7th European Steel Technology and Application Days - ESTAD 2025

Tuesday 7 October 2025

Hydrogen-Based Direct Reduction (H-DRI) - Margherita I (10:50 - 12:50)

-Conveners: Klaus Krüger

time	[id] title	presenter
10:50	[124] Flexible direct reduction of iron ore with Natural Gas and Hydrogen - Potential and perspectives of the new SALCOS demonstration plant µDRAL in Salzgitter	Dr JUCHMANN, Peter
11:10	[198] Carburization with methane of different iron-bearing oxide pellets reduced by hydrogen	KAR, Manish Kumar
11:30	[277] Models for simulating gas and energy management in the transition of integrated steelworks to high hydrogen direct reduction-based processes	Dr MATINO, Ismael
11:50	[359] Safe H-DRI: advancing the production, transport and storage of Hydrogen-based Direct Reduced Iron (H-DRI) for sustainable steelmaking	ALEMANNO, Valentina
12:10	[379] Computational Analysis of Means to Enhance Hydrogen-Based Direct Reduction in Shaft Furnaces	Prof. SAXÉN, Henrik
12:30	[400] Kinetics of Direct Reduction of iron ore pellets: understanding rate-limiting steps in hydrogen-based reduction of low- and high-grade pellets	Mrs SERGI, Claudia

Hydrogen-Based Direct Reduction (H-DRI) - Margherita I (14:30 - 16:10)

time	[id] title	presenter
14:30	[313] Flexible operation of DRI plants integrated with high-temperature electrolysis for cost-effective decarbonization of iron production	FICILI, Marco
14:50	[357] Real laboratory ‘H2Stahl’ for hydrogen-based direct reduction	Dr SCHUBERT, Daniel Mr HENSMANN, Michael Dr WOLTERS, Ralf Mr PIETRUCK, Roland
15:10	[214] An integrated approach to steelmaking decarbonization: HYDRA project. Description of the innovative open platform and first results	Mr CIRILLI, filippo
15:30	[421] Results from the HySteel project: integration of solid oxide electrolysis into direct reduction iron systems	MASTROPASQUA, Luca
15:50	[473] Calix’s Zero Emissions Steel Technology (ZESTY): Breakthrough pilot testing results for the Hydrogen Direct Reduced Iron (H-DRI) process	VAN DORP, Sebastiaan