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CFD modelling of AOD converter tuyere region

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Argon-oxygen decarburization (AOD) is the most common refining process in stainless steelmaking. The converter's tuyere region has complex multiphase phenomena and extremely harsh environment, which makes direct experimental process measurements very difficult. However, valuable information can be obtained using computational fluid dynamics (CFD). This minireview targets to critically examine CFD simulation methodologies in AOD converter tuyere region in a fundamental way to understand the strengths and limitations of different approaches. Particular attention is directed towards multiphase models, turbulence models, and general methodology to achieve set targets. Summary of used the methodologies is given with research focus.

Speaker Country

Finland

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Yes

Primary author: VUOKILA, Ari (University of Oulu)

Co-authors: Mr PYLVÄNÄINEN, Mika (University of Oulu); VISURI, Ville-Valtteri (Process Metallurgy Re-

search Unit, University of Oulu)

Presenter: VUOKILA, Ari (University of Oulu)

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