عنوان مقاله:

The Effect of Slag Types and Melting Rate on Electro-Slag Remelting (ESR) Processing

محل انتشار:

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خلاصه مقاله:

In this research, the influence of chemical composition of slags and the melting rate on the impurity of commercial grade iron in ESR processing has been investigated.The chemical composition and microstructure studies were evaluated, using spectrophotometer,OMand EDX analyses attached to SEM.The results show that ESR process has successfully reduced the amount and size of inclusions. In some cases, sulfide inclusions were not observed and the size of other inclusions was reduced down to ۱۰ , whereas in primary electrodes the size of inclusion was up to ۱۰۰ . An increase in the slag basicity up to a critical point and a decrease in the melting rate caused better desulfurization ability of the slags. However, the increase in the time of process was governed by the melt temperature and fluidity.

کلمات کلیدی:

Electro slag remelting (ESR), Pure iron, Desulfurization, inclusion