

Title (en)

DEVICE AND METHOD FOR DETECTING AND CONTROLLING THE SLAG IN MOLTEN STEEL

Title (de)

VORRICHTUNG UND VERFAHREN ZUM ERFASSEN UND STEUERN DER SCHLACKE IN STAHLSCHMELZE

Title (fr)

DISPOSITIF ET PROCÉDÉ SERVANT À DÉTECTER ET À CONTRÔLER LES SCORIES DANS DE L'ACIER EN FUSION

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Application

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Abstract (en)

Embodiments of the present invention provide an apparatus and method for detecting slag in molten steel. The apparatus includes: a sensor, adapted to obtain at least one kind of characteristic information of a surface of a molten steel coverage layer of the tundish and provide the characteristic information for a signal processor; and the signal processor, adapted to determine whether there is slag according to the characteristic information, and output, if there is slag, a slag alarm signal and a control signal used for stopping the molten steel and the slag from flowing from a ladle into a tundish via a long-nozzle; wherein the molten steel and slag flow from the ladle into the tundish via the long-nozzle, and density of the slag is smaller than that of the molten steel. The apparatus can be installed conveniently, has long lifetime and will not output erroneous alarm signal prematurely due to environment interference.

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