

NITROGEN DISSOLUTION IN CARBON-SATURATED IRON  
DURING PLASMA PROCESSING

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ABSTRACT

The behaviour of nitrogen in a single phase direct arc furnace equipped with a drilled graphite electrode has been investigated. With the technique of electrode gas injection, a stable arc column of controlled composition was produced above a bath of carbon saturated iron held in an induction furnace. The influence of plasma composition on melt nitrogen content was determined. An ammonia jet was used to model these effects.

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