

Qi Xingchen

**Technology of smelting high-strength high-strength steel Fe-Mn-Al-Si
using direct alloying with manganese**

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h Thesis is devoted to the technology of smelting high-strength high-strength steel Fe-Mn-Al-C using direct alloying with manganese.

The explanatory notes are divided into 9 sections, including: the principle of direct doping of manganese ore and comparing the conditions of its doping in oxidation and reduction in an electric arc furnace. Thermodynamic software HSC5 was used to simulate the effects of different temperatures on the equilibrium content of manganese in slag and metals during the process of direct alloying. As well as economic calculations, project startup.

s This paper analyzes and discusses the possibilities and precautions for the use of manganese ore for direct alloying to increase the manganese content in the target high-manganese steel to reduce the use of expensive, energy-intensive ferromanganese.

n Key words: MANGANESE, HIGH PLASTIC HIGH – STRENGTH STEEL, DIRECT ALLOYING, REFINING, CHIPBOARD, AOD, HSC 5.

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