MICROALLOYING COLD-ROLLED ADVANCED HIGH-STRENGTH STEELS FOR THE AUTOMOTIVE INDUSTRY

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Abstract

Considered efficient production of high-strength microalloyed steels for the automotive industry, developed using an integrated approach based on the physico-chemical conditions for the precipitation carbides, nitrides, sulfides, carbonitrides, cementite and other phases. The changes in the mechanical properties and microstructure parameters in the production of high-strength sheet metal of various systems of complex microalloying during continuous heat treatment. Investigated the effects of complex microalloying on the formation of precipitates, as well as their influence on the processes of recrystallization and phase transformation during continuous heat treatment. The influence of technological parameters of production of cold-rolled advanced high-strength steel sheets on formation of properties of high strength steels.

Keywords: advanced high-strength steel, continuous heat treatment, microalloyed steels, precipitation

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