

FORECASTING OF THE PROPERTIES OF STRUCTURAL MATERIALS AND THE CHOICE OF OPTIMAL TECHNOLOGIES OF THEIR PRODUCTION

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The method of billets production by casting has been introduced. It allows controlling the composition and the structure of the billets' material at the expense of variations of chemical structure, temperature regimes, as well as artificial mechanical and other impacts on the flux during crystallization processes. The interdependence between the produced structure and mechanical properties of the material has been researched.

Technology of casting, crystallization, microstructure, phase composition, durability, plasticity, temperature regimes

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