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Complex Entropy-Informational Criteria in Ferrous Metallurgy

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Abstract:

The author has developed an information assessment of technological schemes of producing steel by refining cast iron and by the method of direct production. There are presented methods of entropy-information analysis of technological stages according to the dynamics of increasing the content of Iron from raw materials to the final product, as well as entropy-information analysis of technological stages of producing ferrous metals depending on the method of smelting. The novelty of the research topic lies in the fact that for the first time objective and fundamental information criteria expressed in universal units of information, bits, were applied to analyzing the technology of chemical and metallurgical processes and schemes for producing ferrous metals. The prospect of research extends to any metallurgical and chemical industries.

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