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ACICULAR FERRITE

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Annotation. Intermediate austenite transformation develops in the temperature between the regions pearlitic and martensitic transformation [4]. Under continuous cooling steel at speeds below the critical value, but higher than those necessary for the decomposition of austenite by the diffusion mechanism, the formation of a mixture of different types of structures whose identification is not always unambiguous. This resulted in a different classification systems of microstructures of low-carbon steel after accelerated cooling and the absence of a common terminology relating to the products of austenite decomposition [3; 5 – 11].

In modern terminology, all of the intermediate transformation product classifications based on the differentiation of the following features – the morphology of bainite ferrite component (rack or plate), the presence of iron carbide precipitates, their distribution and morphology, as well as the presence or absence of residual austenite or martensite-austenite mixture. Identification of the products of the intermediate conversion not morphology ferrite component, and other characteristics by light microscopy is extremely difficult, and in some instances impossible due to the limited resolution of the light microscope, so for these purposes should be to use the method of transmission electron microscopy of thin foils.

Electron microscopy studies show that low-carbon steels lamellar morphology of intermediate products decomposition of austenite is extremely rare, which is confirmed by foreign authors [2; 7; 9; 10].

Key words: *morphology of the ferrite component bainite, acicular ferrite, sverhuglerodistye steel classification Omori, intermediate conversion*

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