

STUDY OF SEQUENCES OF TRANSFORMATIONS AT HIGH TEMPERATURES OF A CU-AL-NI SHAPE MEMORY ALLOY

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Abstract

The shape memory alloys based on the ternary system Cu - Al - Ni are able to produce a memory effect at high temperatures. However, if the material undergoes an accidental overheating, a transformation process leads to progressive loss of its characteristics. In the present work, we present the effects of heating rate between 450 and 580 °C on the structural transformations of austenite after cooling to room temperature.

Keywords: Shape memory alloy, martensitic transformation, thermoelasticity, DSC measurement

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