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A CONJUGATION PROBLEM FOR THE HEAT CONDUCTION EQUATION

Abstract

The friction welding process consists of the following: One of the welded details is rigidly fixed and the other one is rotated by definite angular velocity. Because of friction heat energy evolves on the contact surface of these bodies and the bodies begin to heat up and fuse. At the appointed moment the rotation is stopped and the bodies are compressed to each other. The diffusion welding occurs after definite time. This paper is devoted to the investigation of one-dimensional mathematical model of friction welding process for two rods different on thermal-physical characteristic.