

**MICROSTRUCTURE IDENTIFICATION OF NICKEL SUPERALLOY PROCESSED IN SHEAR FORMING**

PUCHLERSKA Sandra, ŻABA Krzysztof, KWIATKOWSKI Michał, NOWOSIELSKI Maciej,  
KITA Paweł

*AGH University of Science and Technology, Cracow, Poland, EU*

**Abstract**

Nickel superalloys like Inconel are used for the production of aircrafts engine components exposed to high temperatures. These alloys are characterized by heat and creep resistance. One of the technique for producing is rotary forming. Due to the limited plasticity have been made attempts of forming at elevated temperature, or even hot. One way of heating is a laser heating. Aim of this study is to identify the components of the microstructure of material in initial state, and products made of nickel superalloys in the rotary forming process. The analysis is based of microstructure and mechanical properties study of material in initial state and after deformation.

**Keywords:** Shear forming, laser heating, nickel alloys, jet engines

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