

## عنوان مقاله:

Investigation Experimental and Finite Element Method of Mechanical Properties of Hot Forging on Ti6Al4V Alloy

## محل انتشار:

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## خلاصه مقاله:

Forging is one of the oldest and the most important processes of metal forming. The process occurs due to the waxy deformation of metal. In the forging process, the die walls control the material flow and the mechanical properties of the workpiece are significantly improved. Today's world industries, financing costs play a leading role in production. These categories have entered the industry to create a variety of simulation and numerical modeling methods to eliminate this problem. Simulation and experimental test, mechanical properties in the hot forging process in high-cost materials are of great interest to researchers. In this paper, the mechanical properties of hot forging in Ti6Al4V alloy are investigated. According to the obtained results, it can be found that a very close agreement has been made on experiments reported in literature and the simulation. Depending on the results, the strain rate Z-axis showed the shear bands appeared exactly on the 45-degree plates and in the sample center. In fact, the intersection of the band's sample center is the max strain applied to the die. This area has been created with an effective strain and stress at all depths of the workpiece and gradually expands

## کلمات کلیدی:

DEFORM-3D, Finite element method, Hot Forging, Mechanical properties, Ti6Al4V Alloy

## لینک ثابت مقاله در پایگاه سیویلیکا:

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