

ABSTRACT

The work contains: p.68, fig.10, tab.10, refer.41.

In scientific research paper presents an overview of the current state of development of materials for the turbine.

The aim is to study the impact of stress-strain state phase components on the structure and properties of alloys of Mo-Si-B.

Objects of research: alloys of Mo-Si-B (hypoeutectic, eutectic and hypereutectic).

Research methods:

- a) metallographic analysis (NEOPHOT – 21);
- b) X-ray diffraction (Rigaku «Ultima IV»);
- c) determination of macro stress by « $\sin^2\psi$ ».

The object of the study is the structure and properties of alloy samples of this composition: hypoeutectic – (MoSi₂ – 20% (wt.) MoB₂), eutectic – (MoSi₂ – 18% (wt.) MoB₂) and hypereutectic – (MoSi₂ – 14% (w .) MoB₂).

In this work the technology of these alloys, their microstructure and properties. The effect on the microstructure and properties of stress-strain state phase component alloys obtained by electron-beam melting.

Keywords: MICROSTRUCTURE, METHOD « $\sin^2\psi$ », ELECTRON-BEAM MELTING, STRESS.