

ANNOTATION
on research practice report
student group FS-41m
Kosyuk Viktoria
on the theme "Influence of plastic deformation on the structure and properties
of the alloy Ti-TiB₂ construction purposes"

The report on the research results of practical work on the study of the effect of plastic deformation on the structure and properties of the alloy Ti-TiB₂.

The report on the research practice is set out on page 39 of the printed text. The report consists of an introduction, three chapters, the list of used literature and contains 4 figures and 6 tables.

In the introduction the urgency of research topics, describe the purpose of research practices and its objectives.

The first part of the report is devoted to analysis of the literature on the topic of work. It provides basic information on the materials used for the manufacture of armor. The described composite materials reinforced by fibers.

In the second part of the report describes the electron beam installation with intermediate capacity for titanium production. A description of the equipment used to study the structure and metallographic equipment for MEMS research. Shown technology for producing fiber-reinforced composite materials hardener.

In the third part of the report presents the results of research metallographic structure of the alloy samples Ti-TiB₂, chemical composition and microhardness of the phase components.

We conducted a literature review on the topic of research, the technique of a study conducted by the research itself: As a result of research practice the following tasks have been solved.

According to the results of the research practices following conclusions:

1) Theoretically, the expediency of strengthening the titanium fiber titanium diboride.

2) Samples of fiber reinforced composite material TiB_2 .

3) To investigate the microstructure of the alloy, a certain chemical composition and microhardness of the phase of the alloy components.

Keywords: POWDER METALLURGY, ELECTRON BEAM TECHNOLOGY, TITANIUM DIBORIDE, REINFORCED COMPOSITE MATERIALS, METALLOGRAPHIC STRUCTURE, MICROHARDNESS