

CONCLUSIONS

The paper was obtained composite material based on boron carbide impregnated porous frame with B₄C particles metallurgical silicon.

The method of introducing carbon ceramic frame with B₄C particles, which is added to the initial boron carbide powder, starch paste, which ensures exact dosage and uniform distribution of carbon particles refractory component.

It was established that the increase of carbon content leads to the increase of SiC in the composite. Moreover, the formation of SiC, with a low content of carbon, mainly occurs on boron carbide grains, whereas with increasing C, silicon carbide begins to form in the matrix volume component.

Shown to increase the carbon content in the initial charge results in increased rigidity of the matrix component from 9 - 11 GPa.

Developed measures to ensure healthy working conditions and principles of safety in an emergency.

The paper calculated the planned cost estimate of this thesis with all types of identified resources.

A scientific and technical relevance and economic feasibility of the work was grounded.