

CONCLUSIONS

In this work the boron carbide based composite material was obtained by impregnating the porous B₄C particles framework with AK12 alloy.

The method, which eliminates the problem of wetting boron carbide with aluminum and consists in using cladding to create nickel coating on the surface of the boron carbide powder followed by impregnation using electron beam treatment, was developed.

It was established that the nickel film without heat treatment held weakly on the surface of boron carbide. To eliminate this annealing of clad powder was conducted that greatly increases the adhesion of the film of nickel with B₄C powder.

It was shown that such operations provide wetting boron carbide aluminum.

The measures to ensure healthy working conditions and principles of safety in an emergency was developed.

The paper calculated the planned estimated cost of this thesis taking into account all types of identified resources.

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