

CONCLUSIONS

1. $\text{ZrO}_2\text{-NbB}_2$, $\text{ZrO}_2\text{-ZrB}_2$, $\text{ZrO}_2\text{-HfB}_2$ alloys have been investigated, it has been established that the fusion diagrams of these systems belong to the eutectic type, and only two phases are present in all eutectic alloys of the systems.

2. Coordinates of eutectic transformations of $\text{ZrO}_2\text{-NbB}_2$ systems (40 wt.% NbB_2 , $T_E = 2270\text{ }^\circ\text{C}$), $\text{ZrO}_2\text{-ZrB}_2$ (20 wt% ZrB_2 , $T_E = 2350\text{ }^\circ\text{C}$), $\text{ZrO}_2\text{-HfB}_2$ (20 wt. % HfB_2 , $T_E = 2400\text{ }^\circ\text{C}$), and corresponding fluctuation charts were constructed.

3. The graphic dependence of the melting points of the eutectic is constructed

systems $\text{ZrO}_2\text{-NbB}_2$, $\text{ZrO}_2\text{-ZrB}_2$, $\text{ZrO}_2\text{-HfB}_2$ from molar content of diborides in eutectic

4. With the help of graphic dependence the melting points are specified received eutectic:

for the system $\text{ZrO}_2\text{-HfB}_2$ $T_E = 2380\text{ }^\circ\text{C}$, the content of hafnium diboride - 16 mol%;

for the system $\text{ZrO}_2\text{-ZrB}_2$ $T_E = 2360\text{ }^\circ\text{C}$, the content of zirconium diboride - 26 mol%;

for the system $\text{ZrO}_2\text{-NbB}_2$ $T_E = 2280\text{ }^\circ\text{C}$, the content of niobium diboride - 47.5 mol%.

5. By the value of the established constant and with the help of the constructed

graphic dependence with projected coordinates of the unexplored eutectic $\text{ZrO}_2\text{-TaB}_2$ system and the eutectic alloy of this system is obtained.

Determined scientific and technical research relevance, cost estimates calculated planned and ongoing research conducted economic feasibility of the research work and found that the study is appropriate from an economic point of view.

Analyzed parameters of indoor climate, lighting, noise, dust working area

dust, electrical and fire security and found that all the indicators meet optimal standards or permissible value according to the Law of Ukraine "On Labor Protection".