

عنوان مقاله:

The Fabrication of W/ZrC Composite through Reaction Sintering

محل انتشار:

بیست و یکمین کنفرانس بین المللی انجمن هوا فضا ایران (سال: 1401)

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خلاصه مقاله:

Considering the problems and high cost related to graphite parts, the tendency to use composite materials such as W/ZrC as a suitable substitute has been noticed. In this study the W-ZrC composites fabricated by in situ reaction sintering of two precursors were compared, ۱-The conventional WC and ZrO₂ which are ball milled with established molar ratio of ۳-۱ for ۱۲ hours, gelcasted to form a green body and then undergo a pressure less sintering cycle, ۲-A new and innovative way in which for the first time ZrSiO₄ was used instead of ZrO₂, and by testing different molar ratio .between WC and ZrSiO₄ it was understood that the optimum ratio is ۳-۱ once again

کلمات کلیدی:

.W/ZrC composite, Reaction Sintering, Mechanical property, ZrSiO₄

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