

## عنوان مقاله:

Mechano-chemical synthesis of NiAl-TiC nanostructure powder

## محل انتشار:

سومین کنفرانس نانوساختارها (سال: 1388)

تعداد صفحات اصل مقاله: 4

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## خلاصه مقاله:

NiAl-TiC nanocomposite was successfully synthesized via a ballmilled mixture of Ni, Al, Ti and graphite powders. The structural and morphological evolutions of the powders were studied by Xray diffraction (XRD) and scanning electron microscopy, respectively. Results show that NiAlTiC composite was obtained after 6h of milling. The mean grain size of 6 and 10nm were attained for NiAl and TiC at the end of milling, respectively. An annealing of h milled sample at 600 C led to the formation of Ni (Al,Ti,C) solid solution. NiAlTiC nanocomposite that was formed in the 12 h milled sample is stable during an annealing at 600 C. The mean grain size of NiAl at the 12h milled powder increased during annealing at 600C. Maximum micro hardness value of 8.7 GPa was acquired from the 12h milled powder.

## کلمات کلیدی:

nanostructured materials; mechanical alloying; X-ray diffraction

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/84861>

