

Hydroxyapatite 와 Ti 함유 TiN_x 의 복합체의 제조
Fabrication of composites materials of hydroxyapatite
and TiN_x contained Titanium

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The composites of hydroxyapatite-TiN_x were prepared using a spark plasma sintering (SPS) apparatus. Density of hydroxyapatite-1%TiN_x composite was decreased with increasing content of TiN_x in order of 0.1%, 0.5% and 1.0% but density of hydroxyapatite-1%~10%TiN_x composite was increased with increasing content of TiN_x in order of 1%, 5% and 10%. The maximum biaxial strength of hydroxyapatite and TiN_x of composites 0.1% at 900°C. The decomposition of composites hydroxyapatite and TiN_x composites was not detected by XRD at the range of 900°C to 1100°C, this means the decomposition of hydroxyapatite was restrained easily by addition of TiN_x.