



## Phase Transformation Behaviour of Porous NiTi Alloys Produced by Space-holder Method

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### Abstract :

Controlling phase transformation temperatures is an important task required for practical utilization of NiTi-SMAs. In this research, nickel-titanium shape memory alloys (NiTi-SMAs) were successfully produced from elemental Ni/Ti powders using space-holder metallurgical powder method. To investigate phase transformation temperatures, Ni composition and space-holder content of specimens were altered. Microstructure was examined by SEM and phase transformation temperatures were investigated by differential scanning calorimetry (DSC) method. After sintering, phase transformation temperatures alter with Nickel content smoothly in comparison with bulk specimens. Also, phase transformation temperatures were decreased by increasing space-holder content.

### Keywords :

Porous NiTi, Phase transformation temperatures, Ni content, Space-holder

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