

Preparation of $\text{Cu}_{84}\text{Al}_{12}\text{Ni}_4$ shape memory alloying by high energy mechanical milling. / S. Mimouche, M. Azzaz. / Nano Studies. – 2015. – # 12. – pp. 61-70. – eng.

In the present work are shown the results obtained by high energy mechanical milling for Cu–Al–Ni shape memory alloy. the mechanical alloying powder $\text{Cu}_{84}\text{Al}_{12}\text{Ni}_4$ (wt. %) was fabricated in high energy planetary ball milling at a speed of 250 r / min for various milling times (10, 20, 30, 40, 50, and 60 h) the weight ratio of the balls of powder was 15 to 1. this mechanical alloying process is significantly modifying the characteristic of the powder, the recovered grains are ultimately compacted, after suitable heat treatment the shape memory is produced. The means used to study the different evolution are SEM (Scanning Electron Microscopy), DTA (Differential thermal analysis), X-ray Diffraction analysis and DRX *in situ*. Fig. 11, Tab. 1, Ref. 8.

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