

Preparation of aluminium-based quasicrystals

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This paper describes the methods that are applicable for the preparation of aluminium-based quasicrystals. Application of rapid solidification of the melt, mechanical alloying and reactive sintering of metallic powders are presented. Based on the conducted experiments, mechanical alloying seems to be the most promising technology, since it enables to yield nearly pure quasicrystalline powder in Al-Fe-Cu alloy system.

Keywords: quasicrystal, aluminium, reactive sintering, mechanical alloying, rapid solidification

Acknowledgement

This research was financially supported by Czech Science Foundation, project No. P108/12/G043.

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