



SEMINAR

Monday, 21.10.2019 at 13:00

Kolar's lecture hall

Infiltration of Nd-Cu eutectic alloy as a method to improve the coercivity in Nd-Fe-B ribbons

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ABSTRACT

There exist several ways to improve the coercivity of Nd-Fe-B magnets. One way is to decouple the Nd₂Fe₁₄B grains by infiltration of low eutectic Nd-based alloys which we propose in this study. Detailed microstructural analyses showed that non-ferromagnetic Nd₇₀Cu₃₀ was successfully infiltrated between the grains, which prevented their physical contact; Leading to weaker intergrain exchange coupling. The results of such a process is more than 20 % improvement in coercivity while the remanence is accordingly decreased due to the lower amount of ferro-magnetic phase.

Kindly invited.