INFLUENCE OF ANNEALING TREATMENT ON THE STRUCTURE AND MAGNETIC PROPERTIES OF Fe-Al-Cu-Nb-Si-B ALLOYS

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In this work we present experimental results on influence of Al content on the structure, temperature of crystallization, saturation magnetostriction and Hall effect of Fe-Al-Cu-Nb-Si-B alloys. The samples were prepared in form of amorphous ribbons by melt spinning technique. Substitutions were done up to 7at.% of Al. The heat treatments of the samples for further structural and magnetic observations were performed at the temperature range 300-600^{o}C for 1 hour in a vacuum furnace. Structural observations were carried out by TEM. Saturation magnetostriction was measured using SAMR method. Crystallization temperature was determined from temperature dependence of electrical resistivity measured in temperature up to 700^{o}C. Hall effect was measured using standard DC method at room temperature. All experimental results confirmed the influence of Al on the temperature behaviour of above mentioned parameters.

9.7 cm

13.4 cm

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