

Approach to ferromagnetic saturation for the bulk amorphous (Fe_{0.61}Co_{0.10}Zr_{0.025}Hf_{0.025}Ti_{0.02}W_{0.02}B_{0.20})₉₇Y₃ alloy

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The aim of this paper were studies of magnetization in the strong magnetic fields, in the area known as the approach to ferromagnetic saturation for the bulk amorphous (Fe_{0.61}Co_{0.10}Zr_{0.025}Hf_{0.025}Ti_{0.02}W_{0.02}B_{0.20})₉₇Y₃ alloy. The samples were produced using the suction-casting method in the in the form of plates of dimensions $10mm \times 5mm \times 0.5mm$ and rods of length: 20 mm, and diameter 1 mm. The structure was studied using X-ray diffractometry. It was found that investigated samples were amorphous in the as-cast state. The magnetization was measured in a strong magnetic field using a vibrating sample magnetometer (VSM). On the basis of obtained results the type of structural defects having influence on magnetization in high magnetic fields for the BMGs manufactured with different cooling rates were determined.