

**THE STRUCTURE AND THERMAL STABILITY OF
Fe₆₁Co₁₀Y₈Me₁B₂₀ (Me = Nb, Zr, W) AMORPHOUS RIBBONS**
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Fe₆₁Co₁₀Y₈Me₁B₂₀ (Me = Nb, Zr, W) amorphous alloys were produced by rapid quenching on rotating copper wheel. Structure of samples in the as-cast state was examined using X-ray diffractometer (XRD), transmission Mössbauer spectroscopy and scanning electron microscopy (SEM). On the basis of performed measurements, it was found that all investigated samples were amorphous through their volume. Investigation of the thermal stability of amorphous alloys was studied using differential scanning calorimeter (DSC). These measurements showed that addition of one percent of transition metal to alloy composition causes migration of initial crystallization temperature, towards higher temperatures. Thermomagnetic measurements, carried out using the Faraday magnetic weight, showed that performed changes in alloy composition have large impact on Curie temperature, which changes in the range from 545 to 565 K depending on the doped element. The magnetic parameters like coercivity field H_C and saturation of the magnetization M_S were carried out, from the hysteresis loops, using vibrating sample magnetometer (VSM).

9.7 cm

13.4 cm

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