

Magnetocaloric Effect in Amorphous and Partially Crystallized Fe-Zr-Nb-Cu-B Alloy

J. Gondro,¹ K. Błoch,¹ and M. Napiórek¹

¹*Czestochowa University of Technology,*

Faculty of Materials Processing Technology and Applied Physics, Institute of Physics

This paper presents the results of an investigation into the: microstructure, magnetic properties and influence of annealing temperature on the magnetocaloric effect of $\text{Fe}_{82}\text{Zr}_7\text{Nb}_2\text{Cu}_1\text{B}_8$ alloy in the as-quenched and partially crystalline state. The microstructure was investigated using a Mössbauer spectroscopy. The magnetocaloric effect was observed as a change in the magnetic entropy, which was calculated from isothermal magnetization curves. Additional from these curves measured for as-quenched state and partially crystalline alloy Arrott plots were constructed.