The influence of changes in medium range ordering on evolution of the crtical exponents in the $Fe_{76}Mo_{10}Cu_1B_{13}$ alloy

Piotr Gębara[1] and Jan Świerczek[1]

[1] *Department of Physics, Częstochowa University of Technology, Armii Krajowej 19, 42-200 Częstochowa, Poland*

The main goal of this work is to study the critical behavior in the as-quenched and annealed NANOPERM $Fe_{76}Mo_{10}Cu_1B_{13}$ alloy in the vicinity of the critical temperature T_C. The second order phase transition from ferro- to paramagnetic state was confirmed by the positive slope of Arrott plots. The critical exponents (β, γ, and δ) have been revealed using the Kouvel-Fisher method. Moreover, the Kouvel-Fisher analysis revealed the detailed Curie temperature for all investigated samples.