Contribution to Magnetic Properties of Be-Substituted $Ni_{0.3}Zn_{0.7}Fe_2O_4$ Ferrite

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Abstract. Influence of substitution of $(Ni_{0.3}Zn_{0.7})_{1-x}Be_xFe_2O_4$, ferrite, where $x \in \langle 0.1 \div 0.5 \rangle$ to magnetic properties was investigated with respect to possible application and to optimisation of material preparation. The samples were prepared by ceramic method with annealing at 1200, 1250 and 1300°C for 6 hours. Phase characterization of samples was made by means of X-ray diffraction and magnetisation curves. With increasing of Be ionic content, the Curie temperature, saturation magnetization and coercivity increased up to x = 0.25, but the susceptibility decreased.