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Hysteresis Energy Loss of Nanocrystalline $CoFe_2O_4$ Synthesized by Modified Citrate-Gel Method

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This paper presents modification for a model to express magnetic hysteresis loop and the calculation of hysteresis energy loss (HEL) for cobalt ferrite nanoparticles (CFNs) produced by modified citrate-gel method. A simulation of CFNs hysteretic loops was successfully carried out showing a good fitting between the calculated and experimental curve. In addition, HEL is predicted in an expression as a result of this modified model.

Keywords: modeling, magnetization curves, hysteresis, cobalt ferrite.