

# Modelling of the Preparation Process of Properties of Soft Magnetic Materials

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**Abstract.** This paper focuses on the determination of anhysteretic magnetization for materials characterization purposes. An adapted DC hysteresis diagram was employed to gauge the anhysteresis profile. The well-known Jiles Atherton model was employed to derive the parameters from the provided profile for soft magnetic material based on Fe. This method allows to quantify the demagnetization field inside ferromagnetic particles, which is affected by the presence of a non-magnetic component in a compact ring sample and it allows a deeper understanding of the magnetic properties of compacted and composite materials.

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