

# Eddy current characterization and Magnetic properties of iron alumina nanostructured alloy

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**Abstract :** The mechanical alloying technique has been used to synthesis iron alumina nanostructured powder in a high energy planetary ball-mill PM400. Electromagnetic and magnetic characterizations of the powders was investigated by eddy current and vibrating sample magnetometer, the impedance, the coercivity and saturation magnetization of the iron alumina mixtures changes in function of x% (wt).

**Keywords :** iron alumina, electromagnetic and magnetic properties, Eddy Current, VSM.