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Methodology of Additive production in the Nanostructures NbXFe2-X04 Ferrite by Laser Ablation CuHBr

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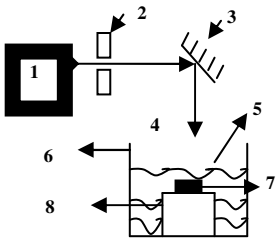
Abstract – The proposal of this work is to present the methodology of the additive production in the BaNbxFe2-x04 ferrite. Discuss a model to obtainment the nanostructured samples using laser ablation equipment, in substitution the traditional ceramic method to making additives of $BaNb_xFe_{2-x}0_4$

With the development of the nanotechnology, become present in the technology of ferrite production, for several applications in the industrial sector such as telecommunications, aeronautics, medicinal, etc. and the properties of the materials of size of grains dependence's [1, 2, 3, 4, and 5]. Therefore, the intention of this work is to demonstrate that the technology using laser ablation is capable to produce ferrites in the nanometers scale, by increasing the performance in its electric and magnetic characterization, being a different technique obtained size grains illustrated in Fig 3in relation to the traditional ceramic

-MILLING PROCESS LASER METHOD

The milling process laser method is realized for one laser CuHBr, in function of the potency variation and the volume of the distilled water, illustrated in Figs 1 and 3



1 – Laser CuHBr,
2 – To collimate the beam,
3 - Mirror 45°,
4 - Potency (W),
5 - Distilled water,
6 –Metallic box,
7 - Pellets of ferrite,
8 - Metallic base.

Figure 1: Equipment project for milling process laser, CuHBr

Figure 2: Laser, CuHBr

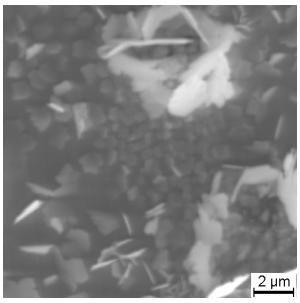


Figure 3: Size of grains of The additive nanostructured $BaNb_xFe_{2-x}0_4$

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