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# Analytical Characterization of Nd<sub>2</sub>FeB sintered magnet

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**Abstract :** The remarkable properties (magnetism and corrosion resistance) of the Nd-Fe-B sintered magnet are associated with the presence of other metal elements that Neodymium-Iron-Boron like Cu, Mn, Al, V, Ni and others. With an aim of having information on the components in the Nd-Fe-B matrix and on the distribution of these elements, in this work, the NAA has highlighted the presence of several metallic elements. Using a mass ratio equal to an activity ratio we can calculate the proportions of detected Elements. The results are: iron with 51.30%, neodymium with 25.41% and other elements like nickel with 1.25%. The rest from the matrix, 22.04%, represents the proportions of B and the other elements traces. In this work we are interested in neutron activation analysis (NAA) in the only reason is to identify the metallic Elements in trace (ppm).

**Keywords :** NdFeB Sintered magnets, NdFeB characterization, NAA.