

Seminario 5

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Resumen

The possibility of tailoring the properties of a magnetic material to obtain the best performance in a given application has been traditionally an unreachable dream. Until recently the main research effort was dedicated to obtain specific materials for a wide range of applications i.e. soft magnetic materials, hard magnetic material, recording media, etc.. These materials were used in different devices with small modifications because their magnetic behavior was implicit to its composition or crystalline structure

Amorphous and nano crystalline materials were a very important change because they were like an unwritten book and its anisotropy and its soft or hard magnetic behavior was easily controlled by using different thermal treatments.

Nowadays the magnetic material seems more like an additional component of an integrated device. It is just an additional process, similar to the inclusion of a conductive path or the inclusion of transistors. ...Actually the magnetic anisotropy is almost perfectly controlled and the use of high vacuum and clean room techniques allows the growing of multilayer materials with excellent interfaces and the exchange interaction is a new element of design.

In the talk we will make a revision of the different techniques to perform the magnetic materials tailoring and its application to some devices or to solve some technical problems.