
Magnetic microwires for contact-less sensing application

Diego Archilla Sanz

Amorphous magnetic microwires presents unique magnetic properties, in particular, the giant magneto-impedance effect present in this type of microwires allows to detect the interaction of the sample with microwaves. The changes of this interaction due to variation of the physical properties of the microwire makes them useful as elements for contact-less sensing application. In this work microwires with nominal composition $\text{Fe}_{2.25}\text{Co}_{72.75}\text{B}_{15}\text{Si}_{10}$, and nucleus and total diameter of $32,9 \mu\text{m}$ and $49,4 \mu\text{m}$ respectively, were used in order to measure changes in the GMI effect produced by temperature and to detect AC current passing through the microwire.
