EFFECT OF NANO Cr2O3 ADDITION ON (Bi-Pb)-Sr-Ca-Cu-O SUPERCONDUCTOR
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ABSTRACT
The effect of nano Cr2O3 addition on (B, Pb)-Sr-Ca-Cu-O superconductor has been studied. The samples were prepared from the co-precipitation method in the bulk form. Both the critical temperature (Tc) and critical current density (Jc) were determined by the four point-probe technique. Phases analyses of the samples by XRD, microstructures determination by SEM and distribution of nano Cr2O3 by EDAX have been carried out. The maximum Tc and Jc were observed for 0.1 wt% nano Cr2O3 in the initial sample. The increase in the Jc of all the samples can be explained due to the effective flux pinning of nano Cr2O3 to the samples.

REFERENCES