

Élaboration et caractérisation des céramiques supraconductrices YBa₂Cu₃O₇

K. LEGLIB, I. YOUCEF FELLOUH

Soutenue en: 2019

Abstract: This work presents bibliographic research and generalities about superconducting materials. The polycrystalline superconducting compound Y123 was developed by solid state reaction (powder metallurgy) from stoichiometric mixtures Y₂O₃, BaCO₃, and CuO. To study the effect of the addition of lanthanum-doped cobalt ferrite (0-5-10%) on magnetic and optical properties, samples of 2g (99.9% Y123 and 0.1% CoFe₂O₄ (0-5-10%) lanthanumdoped) were prepared, and characterized by VSM and FTIR.

Keywords : cuprates, supraconductor, Y123, YBCO, magnetic