The multiferroic properties of Bi(Fe$\frac{1}{2}$Cr$\frac{1}{2}$)O$_3$ compound

CHANGQING JIN, J.L. ZHU, H.X. YANG, S.M. FENG, L.J. WANG, R.C. YU, X.H. WANG, L.T. LI, Institute of Physics, Chinese Academy of Sciences, Beijing, China — Dense Bi(Fe$_{1/2}$Cr$_{1/2}$)O$_3$ ceramics of $R\bar{3}c$ crystal structure were synthesized by solid state reaction under high pressure. TEM observations reveal superstructure characteristics in Bi(Fe$_{1/2}$Cr$_{1/2}$)O$_3$. Magnetization as well as dielectric properties of Bi(Fe$_{1/2}$Cr$_{1/2}$)O$_3$ ceramics were characterized over a broad temperature.