

Replication Method for Substrates and Buffer Layers using Interfacial Epitaxial Layers

S. M. Lim, K. J. Jang, D. Youm

Department of Physics, KAIST, Daejeon, Korea

The buffer layers like that CeO_2 , YSZ and SrTiO_3 are deposited on c-axis grown BaO film on Ni tape. There are solid solutions of BaO and buffer layers. The solid solution makes epitaxial interfacial layers. Oxygen protecting layer and metal layer are deposited continuously without any texturing. Water dissolves BaO layer then we can obtain metal tape that textured only on surface. We deposited superconducting layer on that new substrates and buffer layers.

keywords : Replication, solid solution, interfacial layer, BaO

Acknowledgement

This research was supported by a grant from Center for Applied Superconductivity Technology of the 21st Century Frontier R&D Program funded by the Ministry of Science and Technology.