

Ferroelectric and Multiferroic BiFeO₃ Thin Films Supported by RABiTS Substrates

Disclosure Number

200902338

Technology Summary

Low-cost, wide-area, Ferroelectric and Multiferroic, (111)-, (101)-, and (001)-oriented polycrystalline BiFeO₃ films are supported by RABiTS substrates and specific arrangements of buffer, barrier, and seed layers. BiFeO₃ films grown in accordance with the invention are especially suitable for applications such as flexible circuit boards, capacitors, high-density flexible digital data storage systems and non-volatile digital memory. These BiFeO₃ films can be grown inexpensively using readily available materials and well known techniques such as the ORNL RABiTS technology.

Inventor

GOYAL, AMIT

Materials Science and Technology Div

Licensing Contact

DETRANA, ALEXANDER G

UT-Battelle, LLC

Oak Ridge National Laboratory

Rm 139, Bldg 4500N, MS: 6196

1 Bethel Valley Road

Oak Ridge, TN 37831

Office Phone: (865) 576-9682

E-mail: DETRANAAG@ORNL.GOV

Note: The technology described above is an early stage opportunity. Licensing rights to this intellectual property may be limited or unavailable. Patent applications directed towards this invention may not have been filed with any patent office.