Processing of MCG Signals Measured in a Magnetically Very Noisy Environments with High-Tc SQUID Mgnetometers

K. K. Yu, I. S. Kim, Y. K. Park

Superconductivity Group, Korea Research Institute of Standards and Science , Daejeon, Korea

High-Tc SQUID magnetometers and gradiometers with directly coupled pickup loops were fabricated and characterized. Several types of high-Tc SQUIDs have been investigated to study that which kind of high-Tc SQUID would be better adapted for the measurement of biomagnetic signals. High-Tc magnetometers and gradiometers were fabricated from single layer YBCO thin film on STO bicrystal substrates with misorientation angle of 30-degree. Magnetic performances were tested in magnetically shielded and unshielded environment utilizing software filters and signal processing techniques.

keywords : HTS-THIN FILM, SQUID, MCG