

Measurement Issues associated with the Berlincourt technique

Abstract

The use of the Berlincourt technique to measure the piezoelectric coefficients of bulk piezoelectric ceramics is a very popular method because of its simplicity and speed of operation and moderate price. However, an experimental programme at NPL has identified many measurement issues associated with the technique that incur error and variability in measured data. This presentation will describe the main sources of error, most notably the level of static pre-load on the sample, and will explore ways in which to minimise the variability that this leads to.