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Title:	The role of substrates and environment in piezoresponse force microscopy: A case study with regular glass slides
Authors:	Sanwani, S. (/jspui/browse?type=author&value=Sanwani%2C+S.) Balal, M. (/jspui/browse?type=author&value=Balal%2C+M.) Jyotsna, Shubhra (/jspui/browse?type=author&value=Jyotsna%2C+Shubhra) Sheet, G. (/jspui/browse?type=author&value=Sheet%2C+G.)
Keywords:	Piezoresponse force microscopy (PFM) Piezoelectrics Hysteresis Ferroelectrics
Issue Date:	2016
Publisher:	Elsevier
Citation:	Solid State Communications, 246, pp.17-22.
Abstract:	Piezoresponse force microscopy (PFM) is a powerful tool for probing nanometer-scale ferroelectric and piezoelectric properties. Hysteretic switching of the phase and amplitude of the PFM response are believed to be the hallmark of ferroelectric and piezoelectric behavior respectively. However, the application of PFM is limited by the fact that similar hysteretic effects may also arise from mechanisms not related to ferroelectricity or piezoelectricity. In this paper we report our studies on regular glass slides that show ferroelectric-like signal without being ferroelectric and frequently used as a substrate in PFM experiments. We demonstrate how the substrates and other environmental factors like relative humidity and experimental conditions may influence the PFM results on novel materials.
URI:	<a href="https://www.sciencedirect.com/science/article/pii/S003810981630179X">https://www.sciencedirect.com/science/article/pii/S003810981630179X</a> ( <a href="https://www.sciencedirect.com/science/article/pii/S003810981630179X">https://www.sciencedirect.com/science/article/pii/S003810981630179X</a> ) <a href="http://hdl.handle.net/123456789/2420">http://hdl.handle.net/123456789/2420</a> ( <a href="http://hdl.handle.net/123456789/2420">http://hdl.handle.net/123456789/2420</a> )
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