

**INCORPORATION OF DIELECTRIC LAYER ONTO SThM TIPS
FOR DIRECT THERMAL ANALYSIS
ABSTRACT**

One of the limitations to current usage of scanning thermal microscopes arises when one needs to obtain a thermal map of an electrically biased specimen. Current practice is for the conductive parts of the specimen to be passivated to prevent excessive current leakage between the tip and the conductive sample. The present invention eliminates the need for this by coating the probe's microtip with a layer of insulation that is also a good thermal conductor. Examples of both thermocouple and thermistor based probes are given along with processes for their manufacture.

Figure 3a