



- (A) Electrification and Stick Slip Motion: Showing the distribution of positive charges that are left behind after a polyester surface is scanned by a 0.3 mm diameter graphite tip that is attached to the double cantilever shown in figure 3A. The surface is scanned under ambient conditions with 2 mN normal force applied to the tip at a scan velocity of 170 mm/sec. The residual surface charge is imaged in 333 ms. using the liquid crystal apparatus shown schematically in figure 3B. The charge image is taken after the surface has been scanned and the tip is retracted.
- (B) The image shows the time averaged position of the tip recorded during the scan at 30 frames per second. The physical dimension of the tip is indicated by the circle. Brighter regions indicate longer stick times.

Figure 1