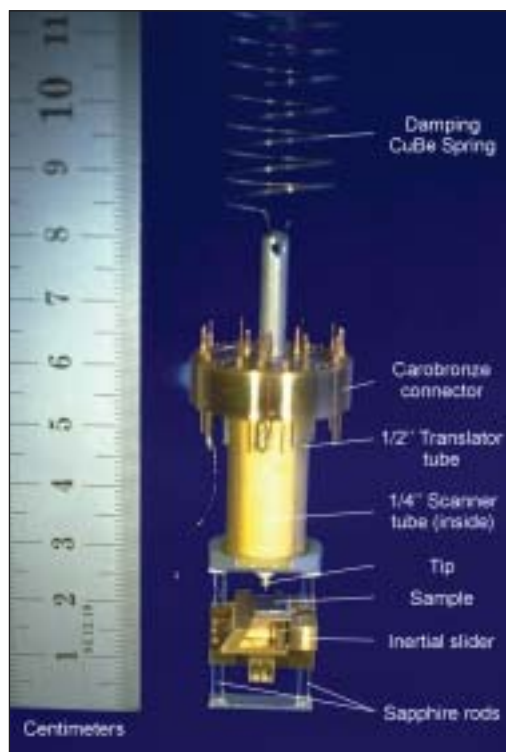




Room-temperature scanning tunnelling microscopy

Keywords	Scanning tunnelling microscopy (STM), scanning tunnelling spectroscopy (STS), ferroelectrics.
Function	The following facility allows to investigate the surface of conducting materials using a scanning tunnelling microscope (STM). The instrument gives access to the topography with atomic resolution and allows local electron spectroscopy. A small chamber allows to use the instrument under low vacuum or in a controlled gas atmosphere.
Present use	At present this instrument is used to investigate the local density of states of ferroelectric-based field effect devices.
Specifications	<i>STM features</i> <ul style="list-style-type: none">• scan range @ 300 K: $15 \times 15 \mu\text{m}^2$• spatial resolution: $\sim 0.1 \text{ \AA}$ <i>HV space</i> <ul style="list-style-type: none">• base pressure: 10^{-4} mbar
Requirements	Sample surface: conducting Minimal sample size: $1 \times 1 \times 0.2 \text{ mm}^3$



Contact Prof. Øystein Fischer, Université de Genève, Département de Physique de la Matière Condensée (DPMC), 24 quai Ernest-Ansermet, CH-1211 Genève, T +41 (0)22 379 62 70, F +41 (0)22 379 68 69, oystein.fischer@physics.unige.ch, dpmc.unige.ch/gr_fischer