

TUNNELING OF ELECTRONS AT SCANNING TIP

This is the process that produces the image of a surface with atomic resolution to see individual atoms. By getting the scanning tip and the sample within a nm of each other and applying a voltage, the electron clouds, which occupy most of the volume of an atom, around each nucleus of the surface atoms, overlap with the electron clouds of the tip atoms. This allows the electrons from the tip to pass across to become electrons in the sample. This process is called tunneling.

