

Silicon Nanowires in Reconfigurable FETs: Synthesis and Characterization

Abstract:

Over the years, Silicon Nanowires have found application in CMOS devices, either as a p-type or an n-type Field Effect Transistor. In the case of the device under inspection, the principle carrier can be controlled by engineering the Schottky Junction potential, which is the potential across the metal-semiconductor interface. Two methods of development of such reconfigurable FETs are illustrated. Also, the proposed techniques to characterize the Schottky junctions in such nanowires is briefly discussed thereafter.