총회초청 2

Semiconductor Etching with Halogens: STM Investigations

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This talk will review recent progress made in understanding surface etching of Si(100)-2x1 and GaAs(110), particularly as offered through in situ scanning tunneling microscopy investigations. These studies have involved exposure of the surface to controlled fluxes and fluences of Br_2 and Cl_2 as a function of temperature, with surface imaging at room temperature. The results show that ordered removal of surface layers can be achieved under suitable conditions and make it possible to compare phenomena related to material removal (etching) to those associated with overlayer formation (growth). They offer insights into surface chemical pathways and the dynamics of etching.

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