

Control of Oxide and Silicon Loss during Exposure of Silicon Waveguide

Authors : Gu Zhonghua

Abstract : Control method of bulk silicon dioxide etching process to approach then expose silicon waveguide has been developed. It has been demonstrated by silicon waveguide of photonics devices. It is also able to generalize other applications. Use plasma dry etching to etch bulk silicon dioxide and approach oxide-silicon interface accurately, then use dilute HF wet etching to etch silicon dioxide residue layer to expose the silicon waveguide as soft landing. Plasma dry etch macro loading effect and endpoint technology was used to determine dry etch time accurately with a low wafer expose ratio.

Keywords : waveguide, etch, control, silicon loss

Conference Title : ICBEDA 2016 : International Conference on Biomedical Electronics, Devices and Applications

Conference Location : Singapore, Singapore

Conference Dates : January 07-08, 2016