

Erratum

A EUTECTIC DISLOCATION ETCH FOR GALLIUM ARSENIDE

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In order to achieve a cleaner stain free surface with greater reproducibility when using either a molten KOH etch or the eutectic etch of NaOH-KOH, the GaAs wafers should be immersed in ethylene glycol immediately on removal from the hot etch. If upon removal from the molten hydroxide etch the samples are allowed to cool in air there is some oxidation of the surface which is not coated with the hydroxide. By immersing the GaAs samples in ethylene glycol, the amount of oxidation is reduced. A further benefit of the use of ethylene glycol is that the glycol will slowly dissolve the hydroxide and the resulting GaAs surface is less likely to be damaged. After dissolving the hydroxide in ethylene glycol (approximately 20 minutes), the etched samples are cleaned in deionized water, followed by an acetone rinse, dipped in methanol and then 2-propanol. The samples are dried in a hot nitrogen flow. The observed etch patterns and etch rates are not affected by the ethylene glycol procedure.