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**Plasma Etch of ZnS using RIE#2**

Substrate temperature=50 °C, a hard-baked-resist mask was used.

Figure 1 Etch profile of SGZ29C [ZnS-etching of the etch cycle: pressure=40 mT, CH₄/H₂ flow rate=4/32 sccm, bias voltage=650 v (bias power~181 W), etch time=25 minutes; O₂-plasma-polymer-cleaning of the etch cycle: pressure=50 mT, O₂=20 sccm, bias voltage=200 v, clean time=5 minutes; number of cycles=3]. (a) Resist mask removed by O₂ plasma for 2 minutes (a-1: taken from 70°; a-2: taken from 90°); (b) Resist mask removed by resist stripper ALEG355 in warm ultrasonic for 2 minutes (b-1: taken from 70°; b-2: taken from 90°); (c) Resist mask removed by resist stripper ALEG355 in warm ultrasonic for 2 minutes and O₂ plasma clean (c-1: taken from 70°; c-2: taken from 90°).
Note: The built-up polymer, during CH$_4$/H$_2$ plasma etch, was removed using O$_2$ plasma clean. The etch was continued after that.