

HIGH ASPECT RATIO ETCH USING MODULATION OF RF POWERS OF VARIOUS FREQUENCIES

ABSTRACT OF THE DISCLOSURE

A method for etching a high aspect ratio feature through a mask into a layer to be etched over a substrate is provided. The substrate is placed (404) in a process chamber, which is able to provide RF power at a first frequency, a second frequency different than the first frequency, and a third frequency different than the first and second frequency. An etchant gas is provided (408) to the process chamber. A first etch step is provided (412) where the first frequency, the second frequency, and the third frequency are at power settings for the first etch step. A second etch step is provided (416), where the first frequency, the second frequency, and the third frequency are at a different power setting. Optionally, a third etch step may also be provided (420).

(Fig.1)