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(54) Title: WET ATOMIC LAYER ETCHING USING SELF-LIMITING AND SOLUBILITY-LIMITED REACTIONS

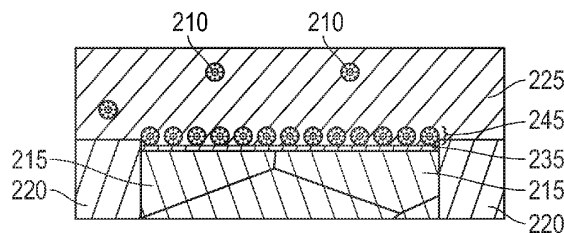


FIG. 2C

(57) Abstract: A method for improving both the microscopic and macroscopic uniformity of materials during etching is disclosed herein. These improvements may be accomplished through the formation and dissolution of thin, self-limiting layers on the material surface by the use of wet atomic layer etching (ALE) techniques. For etching of polycrystalline materials, these self-limiting reactions can be used to prevent this roughening of the surface during etching. Thus, as disclosed herein, a wet ALE process uses sequential, self-limiting reactions to first modify the surface layer of a material and then selectively remove the modified layer.

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