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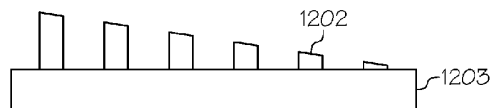


FIG. 12D

(57) Abstract: A method for introducing a customized variation of a geometric parameter in a nanoscale pattern on a substrate. A nanoscale precision programmable profiling process is conducted on one or more regions of the substrate with the nanoscale pattern, where the nanoscale precision programmable profiling process is used to deposit a profiling film with a thickness profile that is a function of the customized variation of the geometric parameter in the nanoscale pattern. The method further comprises conducting a plasma etch process of the profiling film and the material of the nanoscale pattern that converts the thickness profile of the profiling film into the customized variation of the geometric parameter in the nanoscale pattern, where the customized variation is a function of the thickness profile of the profiling film.

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