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(54) **SELF ALIGNED LITHO ETCH PROCESS  
PATTERNING METHOD**

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(57) **ABSTRACT**

A method of defining a pattern includes forming a plurality of cut shapes and a first plurality of openings within a first layer of a multi-layer hard mask to expose first portions of the second layer. A plurality of etch stops is formed by implanting an etch rate modifying species in a portion of the plurality of cut shapes. The first layer is directionally etched at the plurality of cut shapes such that the plurality of etch stops remain. A spacer layer is formed on the first layer and the first portions. A second plurality of openings is formed within the spacer layer to expose second portions of the second layer. The spacer layer is directionally etched to remove the spacer layer from sidewalls of the plurality of etch stops. Portions of the second layer exposed through the first plurality of openings and the second plurality of openings are etched.

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**Related U.S. Application Data**

(63) Continuation of application No. 17/240,692, filed on Apr. 26, 2021, now Pat. No. 11,610,778, which is a continuation of application No. 16/503,277, filed on Jul. 3, 2019, now Pat. No. 10,991,583.

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