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(54) **ETCHING METHOD AND PLASMA  
PROCESSING APPARATUS**

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**ABSTRACT**

An etching method includes (a) providing a substrate including a first region and a second region below the first region, the first region containing a first material and including an opening, the second region containing a second material different from the first material, the second material containing silicon; (b) forming a metal-containing deposition on the first region by using first plasma generated from a first process gas containing halogen, metal, and at least one of carbon or hydrogen; and (c) after (b), etching the second region via the opening by using second plasma generated from a second process gas different from the first process gas.

