

## ABSTRACT

There is provided an etching method capable of controlling the respective etch rates of a silicon  
5 nitride layer and a silicon oxide layer to the same level and forming even a high-aspect-ratio hole having a desirable profile at a high etch rate. A workpiece having a stacked film (5) of a silicon oxide layer (2) and a silicon nitride layer (3) is treated with an  
10 etching gas containing an unsaturated halon represented by the chemical formula:  $C_2H_xF_{(3-x)}Br$  (in the chemical formula, x stands for 0, 1, or 2). This makes it possible to etch the silicon oxide layer (2) and the silicon nitride layer (3) at etch rates of the same level,  
15 respectively.

Fig. 1