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(54) **METHOD OF PLASMA ETCHING**

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(57) **ABSTRACT**

An additive-containing aluminium nitride film is plasma etched. The additive-containing aluminium nitride film contains an additive element selected from scandium (Sc), yttrium (Y) or erbium (Er). A plasma is established within the chamber to plasma etch the additive-containing aluminium nitride film exposed within the trench. A ratio of the inert diluent gas flow rate to the sum of the BCl_3 and Cl_2 flow rates is in the range 0.45:1 to 0.75:1 and a ratio of the BCl_3 flow rate to the Cl_2 flow rate is in the range 0.75:1 to 1.25:1.