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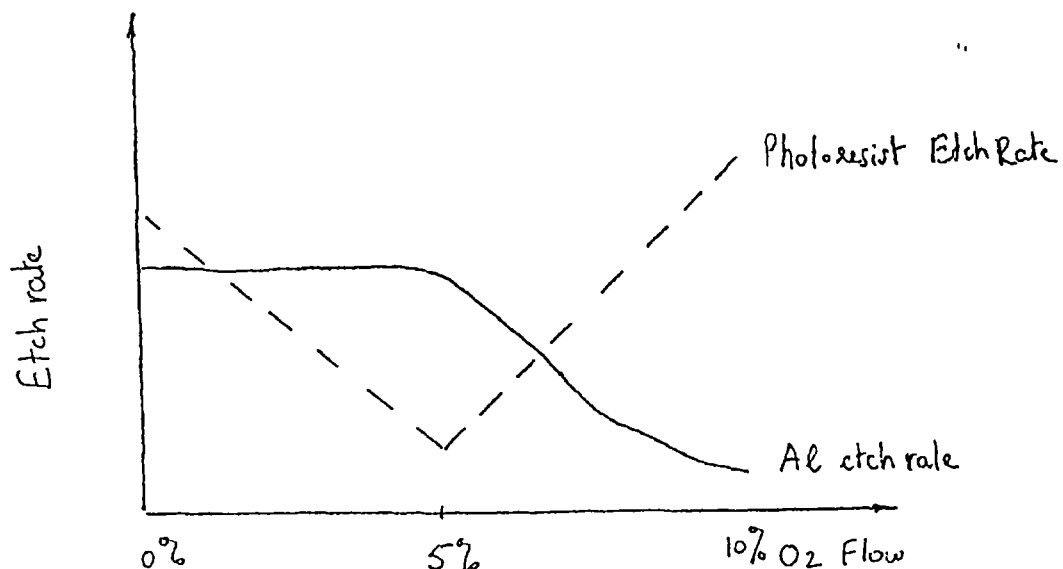


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(54) Title: METHODS FOR ETCHING AN ALUMINUM-CONTAINING LAYER



(57) Abstract

A method for etching selected portions of an aluminum-containing layer of a layer stack that is disposed on a substrate. The aluminum-containing layer is disposed below a photoresist mask having a pattern thereon. The method includes providing a plasma processing chamber and positioning the substrate having thereon the layer stack, including the aluminum containing layer and the photoresist mask, within the plasma processing chamber. The method further includes flowing an etchant source gas that comprises HCl, a chlorine-containing source gas, and an oxygen-containing source gas into the plasma processing chamber. The flow rate of the oxygen-containing source gas is less than about 20 percent of a total flow rate of the etchant source gas. There is also included striking a plasma out of the etchant source gas, wherein the plasma is employed to etch at least partially through the aluminum-containing layer.