Method of Forming a Metal-Insulator-Metal Capacitor

ABSTRACT OF THE DISCLOSURE

A method of forming a metal-insulator-metal capacitor has the following steps. A stack dielectric structure is formed by alternately depositing a plurality of second dielectric layers and a plurality of third dielectric layers. A wet etch selectivity of the second dielectric layer relative to said third dielectric layer is of at least 5:1. An opening is formed in the stack dielectric structure, and then a wet etch process is employed to remove relatively-large portions of the second dielectric layers and relatively-small portions of the third dielectric layers to form a plurality of lateral recesses in the second dielectric layers along sidewalls of the opening. A bottom electrode layer is formed to extend along the serrate sidewalls, a capacitor dielectric layer is formed on the bottom electrode layer, and a top electrode layer is formed on the capacitor dielectric layer.

(FIG. 1A)