ABSTRACT

A METHOD TO FORM SIDEWALL POLYSILICON CAPACITORS

A new method of forming sidewall capacitors in the manufacture of an integrated circuit device has been achieved. Conductive traces are formed overlying a semiconductor substrate. A portion of the conductive traces, which may comprise polysilicon, forms the bottom plates for planned sidewall capacitors while a portion forms MOS transistor gates. A dielectric layer is deposited overlying the conductive traces. A conductive layer is deposited overlying the dielectric layer. The conductive layer is etched down to form conductive sidewall spacers on the dielectric layer of the MOS transistor gates and to form top plates for the sidewall capacitors. The conductive sidewall spacers of the MOS transistor gates are etched away while the top plates of the sidewall capacitors are protected with a protective mask. The dielectric layer is etched down to form dielectric sidewall spacers on the MOS transistor gates while the sidewall capacitors are protected with a protective mask.

FIGURE 1 IS SUGGESTED FOR PUBLICATION