MEMORY CELL STRUCTURE AND METHOD FOR FABRICATION THEREOF

ABSTRACT

A memory cell includes a substrate, an access transistor and a storage capacitor. The access transistor comprising a gate stack disposed on the substrate, and a first and second diffusion region located on a first and second opposing sides of the gate stack. The storage capacitor comprises a first capacitor plate comprising a portion embedded within the substrate below the first diffusion region, a second capacitor plate and a capacitor dielectric sandwiched between the embedded portion of the first capacitor plate. At least a portion of the first diffusion region forms the second capacitor plate.

Fig. 14