

SEMICONDUCTOR STRUCTURE AND METHOD FOR FORMING SAME

ABSTRACT

Embodiments of the disclosure provide a semiconductor structure and a method for forming a semiconductor structure. The method includes: providing a substrate, the substrate including a first isolation groove extending in a first direction and a plurality of active columns arranged in an array along the first direction and a third direction, the substrate being divided into a first area and a second area by the first isolation groove along a second direction, the active columns being supported through support structures, the first direction, the second direction and the third direction being perpendicular to each other in pairs, the first direction and the second direction being parallel to an upper surface of the substrate; forming semi-capacitor structures located in the first area and gate-all-around structures located in the second area in gaps between the active columns; processing the active columns and the semi-capacitor structures in the first area to form capacitor structures extending in the second direction; and forming first connecting structures connecting the gate-all-around structures and the capacitor structures in the first isolation groove.

<Fig. 1>