

ABSTRACT

The present disclosure provides a manufacturing method of a semiconductor structure and a semiconductor structure. The manufacturing method of a semiconductor structure includes: providing a substrate, where the substrate includes active regions and isolation regions, each of the isolation regions includes a first trench and an isolation layer formed in the first trench; removing part of the isolation layer to form first grooves; forming a first mask layer, where the first mask layer covers upper surfaces of the active regions and fills the first grooves; planarizing the first mask layer, such that an upper surface of a portion of the first mask layer located above the active regions is flush with an upper surface of a portion of the first mask layer located above the isolation regions; removing part of the first mask layer, part of the isolation layer, and part of the substrate, to form second trenches and third trenches, where each of the second trenches is located in each of the isolation regions, each of the third trenches is located in each of the active regions, and a width of the third trench is greater than that of the second trench; and forming word line structures in the second trenches and the third trenches.

FIG. 14