SEMICONDUCTOR STORAGE DEVICE AND METHOD OF MANUFACTURING SEMICONDUCTOR STORAGE DEVICE

ABSTRACT

A semiconductor storage device according to an embodiment includes a stacked body including a plurality of conductive layers and a plurality of insulating layers alternately stacked, and a plurality of pillars each including a core material extending in the stacked body in a first direction intersecting a face of each of the plurality of conductive layers, a semiconductor layer covering a side face of the core material, and a multi-layered insulating layer stacked on a side face of the semiconductor layer, the semiconductor layer being crystalline, the multi-layered insulating layer including a charge storage layer, wherein each of the semiconductor layers includes a crystal structure in which the appearance number of crystal grain boundaries per 1 μm in the first direction is less than 2 near to at least a first end in the first direction, and an additive that includes one or more of carbon, nitrogen, oxygen, and fluorine.

FIG. 4