

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0231014 A1 LEE et al.

Jul. 20, 2023 (43) **Pub. Date:**

(54) SEMICONDUCTOR DEVICE STRUCTURE AND METHOD FOR FORMING THE SAME

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(21) Appl. No.: 17/579,833

(22) Filed: Jan. 20, 2022

Publication Classification

(51) Int. Cl. H01L 29/06 (2006.01)H01L 29/423 (2006.01)

H01L 29/786 (2006.01)H01L 21/8234 (2006.01)

(52) U.S. Cl.

CPC H01L 29/0665 (2013.01); H01L 29/42392 (2013.01); H01L 29/78618 (2013.01); H01L 29/78696 (2013.01); H01L 21/823412 (2013.01); H01L 21/823418 (2013.01); H01L 21/823481 (2013.01); H01L 29/0649 (2013.01)

(57)ABSTRACT

A semiconductor device structure is provided. The semiconductor device structure includes a substrate having a base and a fin structure over the base. The semiconductor device structure includes an isolation structure over the base and surrounding a lower portion of the fin structure. The semiconductor device structure includes a gate stack wrapped around an upper portion of the fin structure. The semiconductor device structure includes a source/drain structure partially embedded in the isolation structure and the lower portion of the fin structure. The source/drain structure has an undoped semiconductor layer and a first doped layer over the undoped semiconductor layer, and the undoped semiconductor layer separates the first doped layer from the isolation structure.

