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(54) **SEMICONDUCTOR DEVICE INCLUDING A BURIED CELL ARRAY TRANSISTOR (BCAT) STRUCTURE AND MANUFACTURING METHOD THEREOF**

(52) **U.S. Cl.**

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ABSTRACT

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A semiconductor device includes: an active area formed on a substrate; bit lines extending in a first direction and formed inside the substrate by passing through the active area, wherein the bit lines are formed at first intervals in a second direction that is substantially perpendicular to the first direction; word lines formed inside the substrate by passing through the active area, and extending below the bit lines in the second direction, wherein the word lines are formed at second intervals in the first direction; a contact structure formed on the active area and adjacent to the bit lines, wherein the contact structure includes a metal layer and an adhesive layer; and a capacitor structure formed on the contact structure, wherein the active area is inclined in a third direction having a certain slope with respect to the first direction.

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