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(54) INTEGRATED CIRCUIT DEVICE AND
METHOD FOR FABRICATING THE SAME

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(71) Applicants: **TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.**, Hsinchu (TW); **NATIONAL TAIWAN UNIVERSITY**, Taipei (TW)

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(72) Inventors: **Jenn-Gwo HWU**, Taipei City (TW);
Jian-Yu LIN, Taipei City (TW)

(73) Assignees: **TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.**, Hsinchu (TW); **NATIONAL TAIWAN UNIVERSITY**, Taipei (TW)

(57) **ABSTRACT**

An integrated circuit device includes a semiconductor structure, a tunneling layer, a top electrode, a passivation layer, and a conductive feature. The semiconductor structure has a base portion and a protruding portion over a top surface of the base portion. The tunneling layer is over a top surface of the protruding portion of the semiconductor structure. The top electrode is over the tunneling layer. The passivation layer is over a sidewall of the protruding portion of the semiconductor structure. The conductive feature is directly below the protruding portion of the semiconductor structure.

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