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(54) **THREE-DIMENSIONAL MEMORY DEVICES
AND FABRICATING METHODS THEREOF**

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(71) Applicant: **Yangtze Memory Technologies Co.,
Ltd., Wuhan (CN)**

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(72) Inventors: **Liang XIAO**, Wuhan (CN); **Qian LI**,
Wuhan (CN); **Shu WU**, Wuhan (CN);
Ziqun HUA, Wuhan (CN)

(73) Assignee: **Yangtze Memory Technologies Co.,
Ltd., Wuhan (CN)**

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ABSTRACT

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The present disclosure provides a memory device. The memory device can include an alternating layer stack comprising dielectric layers and conductive layers stacked in a first direction. The memory device can also include a channel structure extending through the alternating layer stack in a first direction in a first region. A first material layer may be disposed on the channel structure. The memory device can also include a first dummy channel structure extending through the alternating layer stack in the first direction in a second region abutting the first region. A second material layer may be disposed on the first dummy channel structure. The first material layer and the second material layer may be different materials. The first material layer may be spaced apart from the first dummy channel structure in a second direction. The first direction may be perpendicular to the second direction.

