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(54) **THREE-DIMENSIONAL MEMORY DEVICE  
AND METHOD OF MAKING THEREOF  
USING ETCH STOP STRUCTURES  
LOCATED BETWEEN TIERS**

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**ABSTRACT**

A etch stop structure is formed a sacrificial memory opening fill structure formed within a first-tier memory opening vertically extending through a first-tier alternating stack of first insulating layers and first spacer material layers. The etch stop structure may include a conductive etch stop plate that is formed over a sacrificial memory opening fill material portion inside the first-tier memory opening, or may include a semiconductor plug which is selectively grown from sidewalls of an etch stop semiconductor material layer that is formed over the first-tier alternating stack. A second-tier alternating stack of second insulating layers and second spacer material layers is formed over the first-tier alternating stack and the etch stop structure.

