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

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(57) **ABSTRACT**  
  
A semiconductor device includes a substrate having an upper surface, a buffer layer formed on the upper surface, and an element structure formed on the buffer layer. The substrate includes a plurality of holes extending from the upper surface of the substrate to an inside of the substrate and forming a plurality of openings at the upper surface of the substrate. In a cross-sectional view of the semiconductor device, at least two of the holes have different depths.

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