

Title (en)

HIGH ASPECT RATIO HOLES OR TRENCHES

Title (de)

LÖCHER ODER GRÄBEN MIT HOHEM ASPEKTVERHÄLTNIS

Title (fr)

TROUS OU TRANCHÉES À RAPPORT LARGEUR/LONGUEUR ÉLEVÉ

Publication

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Application

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Abstract (en)

[origin: WO2009090520A1] The present invention relates to a method to increase throughput when manufacturing high Aspect Ratio (AR) holes or trenches, and high AR holes or trenches obtained by said method. In semiconductor devices holes or trenches are etched, using dry or wet etching techniques, typically dry etching is preferred. According to the present invention, the initial aspect ratio of the trenches is increased by deposition of the layer of the same material as the substrate on the walls and the bottom of the trenches. In order to get high- integrated devices use of a third dimension, e.g. of a silicon wafer is necessary to follow the ITRS roadmap. Therein, for instance a deep silicon etch is required and further high aspect structures are designed. Many products with high aspect holes are in production or development like deep trench capacitors, Trench MOSFET, DRAM capacitors, through wafer via interconnects, etc.

IPC 8 full level

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Citation (search report)

See references of WO 2009090520A1

Citation (examination)

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