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(54) Title: FABRICATION OF A QUANTUM DEVICE

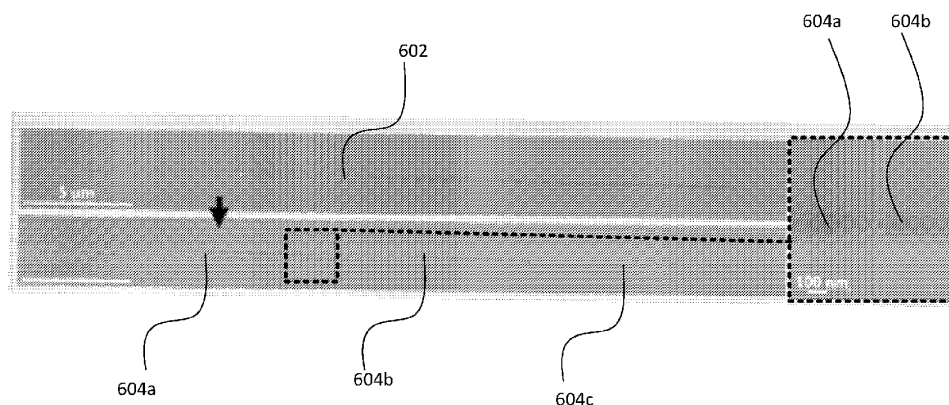


FIG. 6

(57) Abstract: In a masking phase, a first segment of an amorphous mask is formed on an underlying layer of a substrate. The first segment comprises a first set of trenches exposing the underlying layer. In the masking phase, a second segment of the amorphous mask is formed on the underlying layer. The second segment comprises a second set of trenches exposing the underlying layer. The segments are non-overlapping. An open end of one of the first set of trenches faces an open end of one of the second set of trenches, but the ends are separated by a portion of the amorphous mask. In a semiconductor growth phase, semiconductor material is grown, by selective area growth, in the first and second sets of trenches to form first and second sub-networks of nanowires on the underlying layer. The first and second sub-networks of nanowires are joined to form a single nanowire network.

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