

Fabrication of Buried Nanochannels by Transferring Metal Nanowire Patterns

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A method of fabricating channels with widths of 30–50 nm in silicon substrates with channels buried under overlying layers of dielectric materials has been demonstrated. Buried nanochannels with an opening size of 20×80 nm² have been successfully fabricated on a silicon wafer by transferring metal nanowire patterns. With further refinement, the method might be useful for fabricating nanochannels for the manipulation and analysis of large biomolecules at single-molecule resolution.

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