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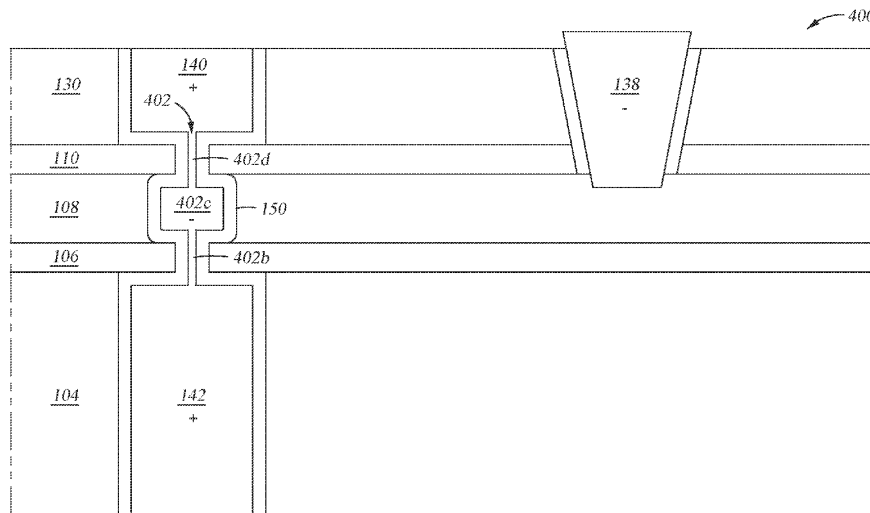
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(54) Title: METHODS TO FABRICATE DUAL PORE DEVICES



(57) Abstract: Embodiments of the present disclosure provide dual pore sensors and methods for producing these dual pore sensors. The method includes forming a film stack, where the film stack contains two silicon layers and two membrane layers, and then etching the film stack to produce a channel extending therethrough and having two reservoirs and two nanopores. The method also includes depositing an oxide layer on inner surfaces of the reservoirs and nanopores, depositing a dielectric layer on the oxide layer, and forming a metal contact extending through a portion of the stack. The method further includes etching the dielectric layers to form wells, etching the first silicon layer to reveal the protective oxide layer deposited on the inner surfaces of a reservoir, and etching the protective oxide layer deposited on the inner surfaces of the reservoirs and the nanopores.

[Continued on next page]

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