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(54) **Title:** SINGLE WAFER REACTOR, LOW TEMPERATURE, THERMAL SILICON NITRIDE DEPOSITION

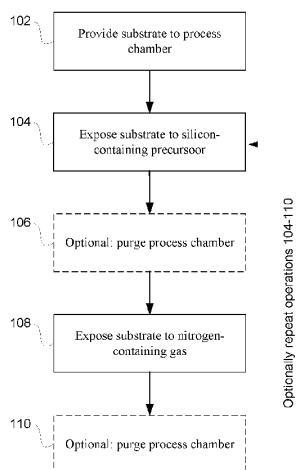


FIG. 1

(57) **Abstract:** Methods and apparatuses for depositing silicon nitride using a thermal atomic layer deposition process are provided. The temperature of a substrate during deposition is higher than the surround process chamber walls to reduce deposition on the chamber walls, reducing the frequency of chamber cleans.

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