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(71) Applicant: **LAM RESEARCH CORPORATION**
[US/US]; 4650 Cushing Pkwy., Fremont, California 94538 (US).

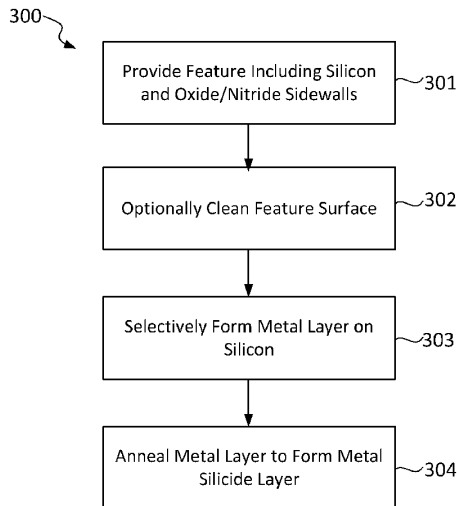
(72) Inventors: **LEE, Sang-Hyeob**; 4650 Cushing Pkwy., Fremont, California 94538 (US). **KARIM, Ishtak**; 4650 Cushing Pkwy., Fremont, California 94538 (US). **BONNER, Benjamin A.**; 4650 Cushing Pkwy., Fremont, California 94538 (US). **PARK, Hee Sook**; 4650 Cushing Pkwy., Fremont, California 94538 (US). **ASHTIANI, Kaihan Abidi**; 4650 Cushing Pkwy., Fremont, California 94538 (US).

(74) Agent: **KIM, Taeyun** et al.; WEAVER AUSTIN VILLENEUVE & SAMPSON LLP, P.O. Box 70250, Oakland, California 94612-0250 (US).

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(54) Title: METAL SILICIDE CONTACT FORMATION



(57) Abstract: Provided are metal silicide contact forming processes including providing a substrate having a bottom crystalline silicon and dielectric sidewalls. This may be followed by metal layer deposition to form metal layer selectively on the bottom crystalline silicon using a metal halide precursor and a reducing agent. A ratio of a reducing agent flow rate to a metal halide precursor flow rate is at least 10:1, or 10:1-10,000:1. After the metal layer deposition, the substrate is annealed to convert the metal layer to a metal silicide layer without any substrate contamination.

FIG. 3

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