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

(72) **Inventors:** **DOLE, Nikhil**; 4650 Cushing Parkway, Fremont, California 94538 (US). **YANAGAWA, Takumi**; 4650 Cushing Parkway, Fremont, California 94538 (US).

SONG, Anqi, 4650 Cushing Parkway, Fremont, California 94538 (US).

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

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(54) Title: REDUCTION OF SIDEWALL NOTCHING FOR HIGH ASPECT RATIO 3D NAND ETCH

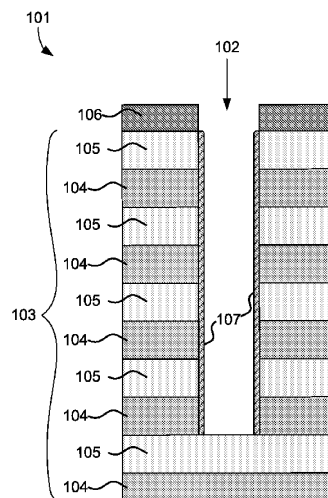


FIG. 3

(57) Abstract: Methods and apparatus for etching a high aspect ratio feature in a stack on a substrate are provided. The feature may be formed in the process of forming a 3D NAND device. Typically, the stack includes alternating layers of material such as silicon oxide and silicon nitride or silicon oxide and polysilicon. WF_6 is provided in the etch chemistry, which substantially reduces or eliminates problematic sidewall notching. Advantageously, this improvement in sidewall notching does not introduce other tradeoffs such as increased bowing, decreased selectivity, increased capping, or decreased etch rate.

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