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(71) Applicant: **GLOBALWAFERS CO., LTD.** [CN/CN];
No. 8 Industrial East Road 2, Science-Based Industrial Park
(TW).

(72) Inventors: **HU, Chieh**; 501 Pearl Drive, St. Peters, Missouri 63376 (US). **TU, Chun-Chin**; 501 Pearl Drive, St. Peters, Missouri 63376 (US).

(74) Agent: **MUNSELL, Michael, G.** et al.; Armstrong Teasdale LLP, 7700 Forsyth Blvd., Suite 1800, St. Louis, Missouri 63105 (US).

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(54) Title: SYSTEMS AND METHODS FOR A PREHEAT RING IN A SEMICONDUCTOR WAFER REACTOR

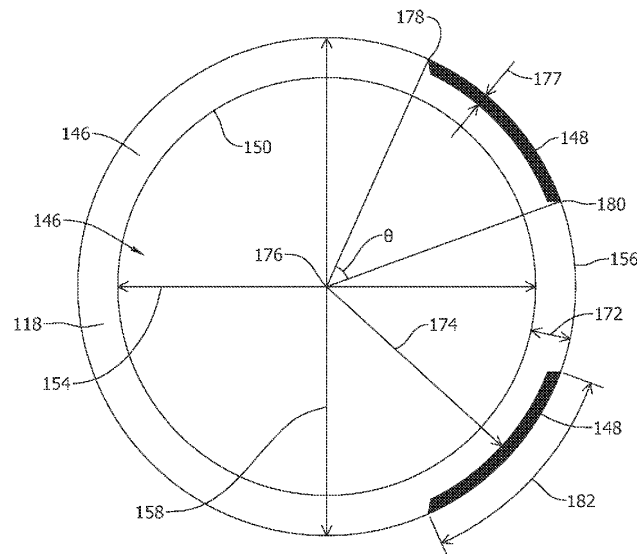


FIG. 6

(57) Abstract: A reaction apparatus includes an upper dome, a lower dome, an upper liner, a lower liner, and a preheat ring. The upper dome and the lower dome define a reaction chamber. The preheat ring is positioned within the reaction chamber for heating the process gas prior to contacting the semiconductor wafer. The preheating ring is attached to an inner circumference of the lower liner. The preheat ring includes an annular disk and an edge bar. The annular disk has an inner edge, an outer edge, a first side, and a second side opposite the first side. The inner edge and the outer edge define a radial distance therebetween. The edge bar positioned on the first side and extending from the outer edge toward the inner edge an edge bar radial thickness. The radial distance is greater than the edge bar radial thickness.

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