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(71) Applicant *(for all designated States except US)*: **LAM RESEARCH CORPORATION** [—/US]; 4650 Cushing Parkway, Fremont, CA 94568 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SALDANA, Miguel, A.** [MX/US]; Apt. 16-B, 38850 Farwell Dr., Fremont, CA 94536 (US). **BOYD, John, M.** [CA/US]; 8730 Sierra Vista Rd., Atascadero, CA 93422 (US). **GOTKIS, Yehiel** [IL/US]; 37789 Peachtree Ct., Fremont, CA 94536 (US). **OWCZARZ, Aleksander, A.** [US/US]; 7523 Deveron Crt., San Jose, CA 95135 (US).

(74) Agent: **PENILLA, Albert, S.**; Martine & Penilla, LLP, Suite 170, 710 Lakeway Drive, Sunnyvale, CA 94085 (US).

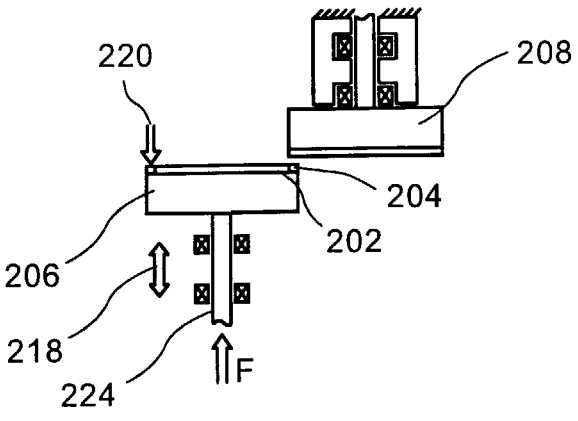
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(54) Title: SUBAPERTURE CHEMICAL MECHANICAL POLISHING SYSTEM



(57) Abstract: A chemical mechanical polishing (CMP) system is provided. A carrier has a top surface and a bottom region. The top surface of the carrier is designed to hold and rotate a wafer having a one or more formed layers to be prepared. A preparation head is also included and is designed to be applied to at least a portion of the wafer that is less than an entire portion of the surface of the wafer. Preferably, the preparation head and the carrier are configured to rotate in opposite directions. In addition, the preparation head is further configured to oscillate while linearly moving from one of the direction of a center of the wafer to an edge of the wafer and from the edge of the wafer to the center of the wafer so as to facilitate precision controlled removal of material from the formed layers of the wafer.

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