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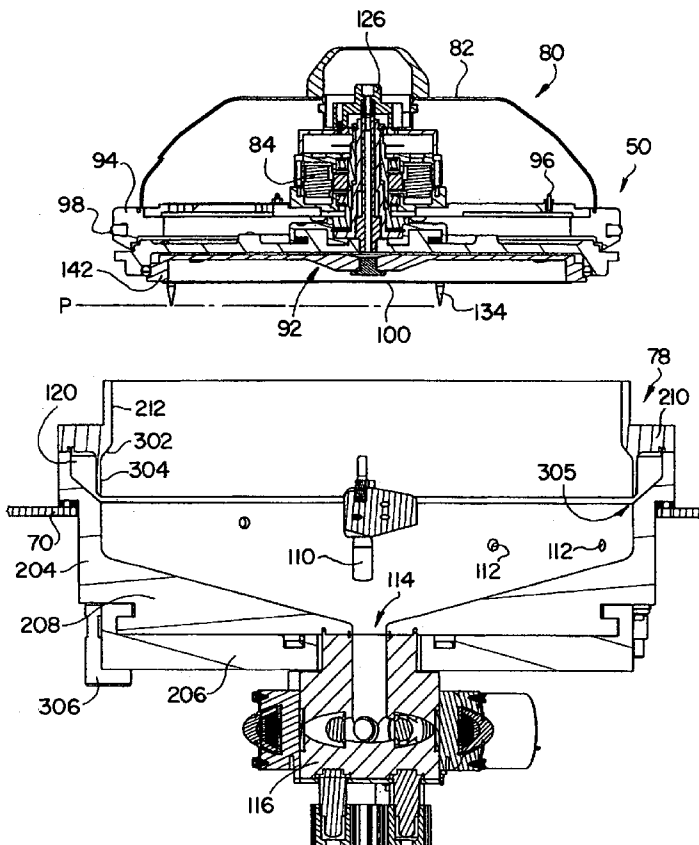
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[Continued on next page]

(54) Title: SINGLE SIDE WORKPIECE PROCESSING



(57) Abstract: A centrifugal workpiece processor for processing semiconductor workpieces includes a head which holds and spins the workpiece. The head includes a rotor having a gas system. Gas is sprayed from inlets in the rotor to create a rotational gas flow. The rotational gas flow causes pressure conditions which hold the edges of a first side of the workpiece against contact surfaces on the rotor. The rotor and the workpiece rotate together. Guide pins adjacent to a perimeter help align the workpiece with the rotor. An angled surface helps deflect spent process liquid away from the workpiece. The head is moveable into multiple different engagement positions with a bowl. Spray nozzles in the bowl spray a process liquid onto the second side of the workpiece, as the workpiece is spinning, to process the workpiece. A moving end point detector may be used to detect an end point of processing.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2004/0241998 A1 (HANSON) 02 December 2004 (02.12.2004); para [0043]-[0047], [0051], [0056], [0061]-[0066]; Fig 2-5, 12-13, 19A-C, 20A-C.	40 ----- 1-39, 41-59
Y	US 2004/0094186 A1 (IVANOV) 20 May 2004 (20.05.2004); para [0031]-[0036]; Fig 1.	1-39, 49-51, 56-57
Y	US 2004/0185751 A1 (NAKANISHI et al.) 23 September 2004 (23.09.2004); para [0102], [0132], [0145]; Fig 2.	52-55, 58-59
Y	US 6,969,682 B2 (HANSON et al.) 29 November 2005 (29.11.2005); Fig 3, 21; col 6.	33, 37-39
Y	US 6,863,772 B2 (CHENG et al.) 08 March 2005 (08.03.2005); Fig 3; col 5.	53
Y	US 2004/0055877 A1 (WILSON et al.) 25 March 2004 (25.03.2004); Fig 4.	41-48
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