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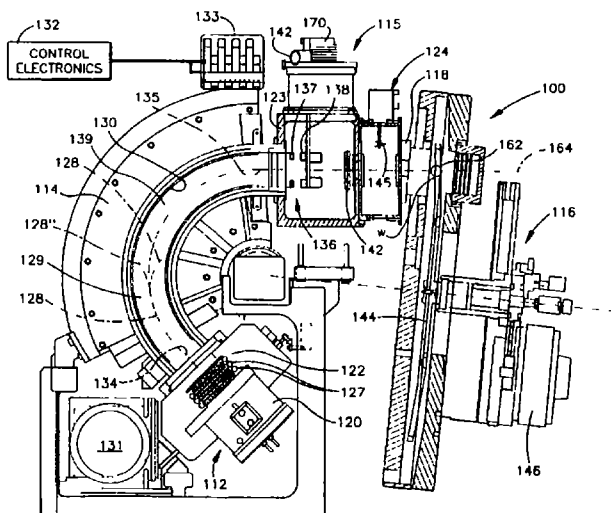
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(54) Title: SYSTEM AND METHOD FOR DELIVERING COOLING GAS FROM ATMOSPHERIC PRESSURE TO A HIGH VACUUM THROUGH A ROTATING SEAL IN A BATCH ION IMPLANTER



(57) Abstract: The invention provides apparatus by which a cooling gas (302) is supplied from a stationary source to the back side of batch ion implanter workpieces being implanted in a rotating or spinning batch implanter process disk (282, 380). The cooling gas (302) provides improved heat transfer from the workpieces to the process disk (282, 380), which may be advantageously combined with circulation of cooling fluid through passages in the process disk to remove heat therefrom. The invention further includes a rotary feedthrough (300) employed to transfer the cooling gas (302) from a stationary housing (210) to a gas chamber in a rotating shaft (270) which spins the batch implanter process disk (282, 380). In addition, a seal apparatus is provided which seals the cooling gas (302) applied to the back sides of the workpieces from the vacuum in which the front sides of the workpieces are implanted.



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