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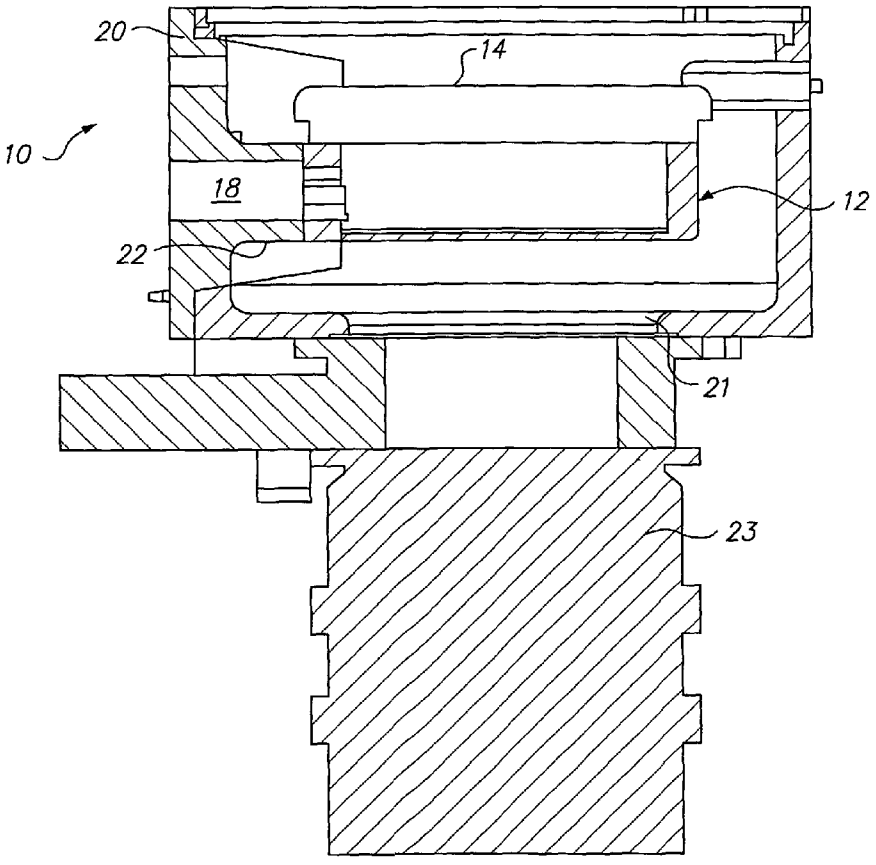
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(54) Title: HIGH TEMPERATURE ELECTROSTATIC CHUCK



(57) Abstract: An electrostatic chuck suitable for use at high temperatures having a replaceable expansion assembly, functioning as an outer tubulation and heat choke, between a chuck body and a heat transfer body. The expansion assembly accommodates differential thermal stresses between the chuck body and the heat transfer body, and/or limits direct heat conduction from the chuck body to the heat transfer body. The ability to operate the chuck at temperatures in excess of 200 °C allows it to be used for plasma etching of materials, such as platinum, which require high temperatures to volatilize low volatility etch products as well as routine plasma etching, chemical vapor deposition, sputtering, ion implantation, ashing, etc. The novel design of the removably attached expansion assembly allows the chuck to be scaled for larger workpieces, to remain serviceable through more heating cycles, and to be economically serviced.

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