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(71) 申请人: 北京北方华创微电子装备有限公司 (BEIJING NAURA MICROELECTRONICS EQUIPMENT CO., LTD.) [CN/CN]; 中国北京市北京经济技术开发区文昌大道 8 号, Beijing 100176 (CN)。

(72) 发明人: 李岩 (LI, Yan); 中国北京市北京经济技术开发区文昌大道 8 号, Beijing 100176 (CN)。 郭

士选 (GUO, Shixuan); 中国北京市北京经济技术开发区文昌大道 8 号, Beijing 100176 (CN)。 茅兴飞 (MAO, Xingfei); 中国北京市北京经济技术开发区文昌大道 8 号, Beijing 100176 (CN)。

(74) 代理人: 北京天昊联合知识产权代理有限公司 (TEE & HOWE INTELLECTUAL PROPERTY ATTORNEYS); 中国北京市东城区东长安街 1 号东方广场东方经贸城西一办公楼 5 层 1, 6-12 室彭瑞欣, Beijing 100738 (CN)。

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(54) Title: SEMICONDUCTOR PROCESS CHAMBER

(54) 发明名称: 半导体工艺腔室

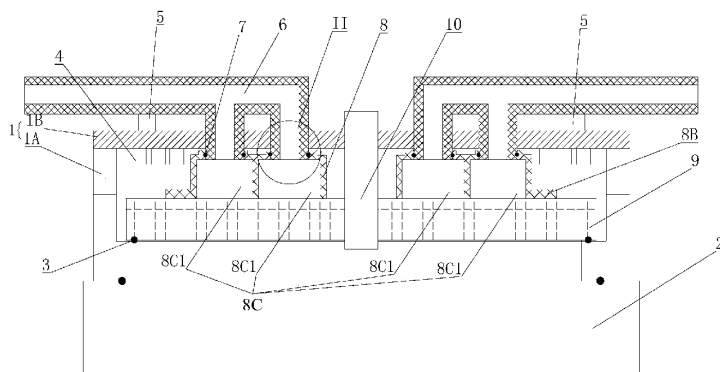


图 5

(57) Abstract: Disclosed in the present invention is a semiconductor process chamber, comprising a chamber, a housing, a dielectric window, a coil, a hot air hood, and an air passage structure. The housing covers an opening; the dielectric window is arranged in the housing and located above the opening; the coil is arranged on the inner top wall of the housing; the hot air hood is located in the housing; the air passage structure is fixedly connected to the housing; the air passage structure has air passages; and ventilation ends of the air passages are located outside the housing, and adapting ends of the air passages are located inside the housing and communicated with air passage openings of the hot air hood. In the semiconductor process chamber disclosed in the present invention, the hot air hood is directly fixed on the dielectric window, and a clearance gap is formed between the hot air hood and the inner top wall of the housing, such that the hot air hood and the housing can be prevented from pushing against each other, thereby preventing changes in the coil distribution structure caused by the deformation of the top wall of the housing due to push of the hot air hood, thus ensuring uniformity of the distribution of ions and free radicals in plasma.

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本国际公布:

— 包括国际检索报告 (条约第21条(3))。

(57) 摘要: 本发明公开一种半导体工艺腔室, 包括腔室、壳体、介质窗、线圈、热风罩和风道结构, 壳体罩设于开口上, 介质窗设置于壳体内且位于开口上方, 线圈设于壳体的内顶壁上, 热风罩位于壳体内, 风道结构与壳体固定连接, 风道机构具有风道, 该风道的通气端位于壳体的外部, 风道的转接端位于壳体的内部, 并与热风罩的风道口连通, 本发明公开的半导体工艺腔室, 通过将热风罩直接固定于介质窗上, 并在热风罩与壳体的内顶壁之间具有避让间隙, 可以避免热风罩和壳体之间相互挤压, 进而避免因热风罩顶推壳体顶壁使其发生形变而造成线圈分布结构改变, 从而可以保证等离子体中的离子和自由基的分布均匀性。