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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD,

(54) Title: FLOW EQUALIZING ASSEMBLY, GAS INTAKE DEVICE AND SEMICONDUCTOR APPARATUS

(54) 发明名称: 匀流组件、进气装置及半导体设备

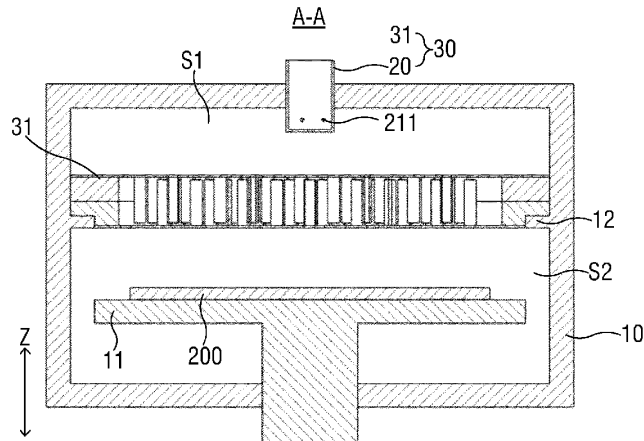


图 6

(57) Abstract: Provided in the present application are a flow equalizing assembly, a gas intake device and a semiconductor apparatus. A flow equalizing cavity is provided inside the flow equalizing assembly, the top wall of the flow equalizing cavity being provided with a plurality of gas inlets penetrating the top wall in the direction of its own thickness, and the bottom wall of the flow equalizing cavity being provided with a plurality of gas outlets penetrating the bottom wall in the direction of its own thickness; and the inside of the flow equalizing cavity is provided with a plurality of gas intake tubes which are arranged corresponding to the plurality of gas inlets on a one-to-one basis, and a plurality of gas output tubes which are arranged corresponding to the plurality of gas outlets on a one-to-one basis, each gas intake tube having a first end connected to the corresponding gas inlet and a second end in communication with the flow equalizing cavity, and each gas output tube having a first end connected to the corresponding gas outlet and a second

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SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ,
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end in communication with the flow equalizing cavity, the second end of the gas intake tube being located below the second end of the gas output tube. By using the present application, the direction of flow of a process gas may change during the process of passing through the flow equalizing assembly, thus helping achieve equal gas discharge volumes from the gas outlets, improving the distribution uniformity of the process gas, which in turn improves the process uniformity and product yield.

(57) 摘要: 本申请提供一种匀流组件、进气装置及半导体设备，匀流组件内部具有匀流腔，匀流腔的顶壁上设有沿自身厚度方向贯穿顶壁的多个进气口，匀流腔的底壁上设有沿自身厚度方向贯穿底壁的多个出气口；匀流腔内部设有与多个进气口一一对应设置的多个进气管，以及与多个出气口一一对应设置的多个出气管；进气管的第一端与对应的进气口连接，进气管的第二端与匀流腔连通；出气管的第一端与对应的出气口连接，出气管的第二端与匀流腔连通；进气管的第二端位于出气管的第二端的下方。采用本申请，工艺气体通过匀流组件的过程中会改变流动方向，以利于使各个出气口的气体喷出量相同，提升了工艺气体的分布均匀性，工艺均匀性和产品良率随之提高。