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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,

(54) Title: CONDUCTIVE SLIP RING AND SEMICONDUCTOR PROCESS DEVICE

(54) 发明名称: 导电滑环及半导体工艺设备

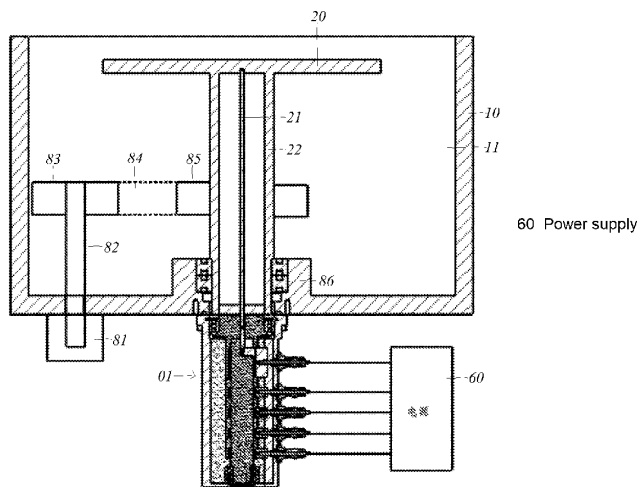


图 1

(57) Abstract: The present application discloses a conductive slip ring and a semiconductor process device. The disclosed conductive slip ring is applied to a process chamber of the semiconductor process device. The conductive slip ring comprises a housing, a fixed electrical connection part, and a rotating electrical connection part. The housing is provided with a housing cavity and a first mounting hole in communication with the housing cavity, and the housing is used to be sealingly connected to the process chamber, so that the housing cavity is in sealed communication with a chamber space of the process chamber. The fixed electrical connection part is in sealing fit with the first mounting hole, a first end portion of the fixed electrical connection part extends into the housing cavity and is relatively rotatably electrically connected to the rotating electrical connection part, and a second end portion of the fixed electrical connection part is located outside of the housing and is used to be electrically connected to a power supply. The rotating electrical connection part

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is rotatably disposed in the housing and is used to be electrically connected to an electrical device in the process chamber. According to the solution, the problem in the related art of a poor sealing effect due to use of a magnetic fluid structure in a process chamber for implementing sealing between the process chamber and the external environment of the process chamber can be solved.

(57) 摘要: 本申请公开一种导电滑环及半导体工艺设备, 所公开的导电滑环, 应用于半导体工艺设备的工艺腔室, 导电滑环包括外壳、固定电连接部和转动电连接部, 其中: 外壳具有壳腔和与壳腔连通的第一安装孔, 外壳用于与工艺腔室密封连接, 以使壳腔与工艺腔室的腔室空间密封连通; 固定电连接部与第一安装孔密封配合, 且固定电连接部的第一端部伸至壳腔中, 并与转动电连接部可相对转动的电连接, 固定电连接部的第二端部位于外壳之外, 且用于与电源电连接; 转动电连接部转动地设于外壳之内, 并用于与工艺腔室之内的用电器件电连接。上述方案能解决相关技术涉及的工艺腔室采用磁流体结构来实现工艺空间与工艺腔室的外部环境之间的密封, 而存在密封效果不佳问题。