

COIL STRUCTURE AND PLASMA PROCESSING APPARATUS

ABSTRACT

The present disclosure relates to the semiconductor technical field and, more particularly, to a coil structure, including at least one coil set. The coil set includes a first coil and a second coil. The first coil and the second coil are wound to form an annular area. A first end of the first coil and a first end of the second coil are close to an inner ring of the annular area. A second end of the first coil and a second end of the second coil are close to an outer ring of the annular area. The first end of the first coil is electrically connected to the first end of the second coil. The first coil forms a first projection on a plane perpendicular to an axis of the coil structure. The second coil forms a second projection on a plane perpendicular to the axial direction of the coil structure. The first projection and the second projection are mirror-symmetrical to each other. The coil structure may generate an electromagnetic field that is distributed symmetrically left and right to distribute the plasma uniformly, which effectively improves the etching quality and etching efficiency of the semiconductor.

FIG. 4