

**ELECTRODE, PLASMA ASSISTED CHEMICAL VAPOR DEPOSITION APPARATUS, AND METHODS
OF FORMING THE SAME**

Abstract

Various embodiments may relate to an electrode for plasma assisted chemical vapor deposition. The electrode may include an electrically conductive first part configured to be electrically connected to a radio frequency (rf) power generator. The electrode may also include an electrically conductive second part connected to the electrically conductive first part, the electrically second part configured to generate plasma upon application of an electric current, e.g. a radio frequency (rf) electric current to the electrically conductive first part. The electrode may additionally include a dielectric slab in contact with the electrically conductive first part and the electrically conductive second part, the dielectric slab configured to carry heat from the electrically conductive second part to the electrically conductive first part. The electrically conductive second part may define a plurality of holes.

FIG. 5A