

<ABSTRACT>

Intended is to provide a plasma generating apparatus, which can remove such a droplet efficiently as might otherwise migrate into a plasma and which can constitute a droplet removing portion simply and inexpensively thereby to improve a surface treating precision such as a filming with a highly pure plasma. In a plasma advancing path (5), there is arranged the droplet removing portion for removing the droplet, which is by-produced from a cathode (4) at the plasma generating time. This droplet removing portion includes a radially enlarged tube (3) forming the plasma advancing path (5), an introduction side radially reduced tube (34) connected to the plasma introducing side initial end of the radially enlarged tube (3), a discharge side radially reduced tube (39) connected to the plasma discharge side terminal end of the radially enlarged tube (3), and stepped portions (40) formed at the initial end and the terminal end of the radially enlarged tube (3).