

Fig. 1: shows a plasma generating device comprising a plasma source, a hollow anode and ignition aids;

Fig. 2: shows a representation of an etching distribution: etching rate in relation to the substrate position;

Fig. 3a-3f: show modifications of the arrangement of the plasma source and hollow anode;

Fig. 4: shows an arrangement of the plasma source and hollow anode in facilities having larger loading height; and

Fig. 5: shows a plurality of anode hollow bodies and a switching unit; and

Fig. 6a-6b: show a plasma hollow body and an anode body having a magnetic field generation apparatus.

Figure 1 shows an inventive plasma generating device for the treatment of workpieces, for example prior or during coating in a vacuum facility. Shown is a vacuum chamber 3 comprising a plasma source hollow body 1 being part of a plasma source, wherein the plasma source hollow body 1 is flange mounted in an electrically insulated manner via insulators. The plasma source further comprises an electron emission unit 5 which is used to produce free electrons. These means protrude into the plasma source hollow body 1, such that the electrons are generated into the plasma source hollow body 1. For example, a tungsten filament heated to a temperature of about 2700-3000K can be used as electron emission unit 5. Application of a negative voltage to the electron emission unit 5 by means of a voltage