



ABSTRACT

PLASMA MELTING METHOD AND PLASMA MELTING FURNACE

A plasma melting furnace has a melting chamber having an anode torch and a cathode torch made of graphite and having a electric conductor disposed on the bottom thereof. When the furnace is operated, the anode torch, having an inflow of electrons, which forms an unstable plasma arc is contacted with the electric conductor and is not used, while the cathode torch, having an outflow of electrons, which forms a stable plasma arc, is utilized for heating, whereby the furnace can be stably and continuously operated. Thus, since the cathode torch which is used is not heated so much and the anode torch, which is liable to be heated to a great degree, is not used, the electrode consumption rate can be greatly reduced.