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Characteristics of atmospheric pressure microwave plasma torch FERHAT BOZDUMAN, ERDOGAN TEKE, ALI GULEC, LUTFI OKSUZ, Suleyman Demirel Universitesi — Atmospheric pressure microwave (2.45 GHz) plasma torch has been designed and built. The plasma optical and electrical characteristic have been investigated. The data has been compared with the kHz frequency rf torch. Electron temperature, density and gas temperatures are measured for different flow rates and for different gases. Optical emission spectrometer and ICCD camera are used to measure the argon and helium plasma characteristics and the results are compared for both designs. This Work has been supported by TUBITAK TEYDEB project no:9100036

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