

Abstract Submitted
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Diagnostics of a large size cylindrical CCP reactor NEVENA PUAČ, Institute of Physics, POB 68, 11080 Zemun, Belgrade, Serbia and Montenegro, GORDANA MALOVIĆ, Institute of Physics, POB 68, 11080 Zemun, Belgrade, Serbia and Montenegro, ANTONIJE DJORDJEVIĆ, School of Electrical Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Serbia and Montenegro, ZORAN PETROVIĆ, Institute of Physics, POB 68, 11080 Zemun, Belgrade, Serbia and Montenegro — Cylindrical CCP reactor was built for treatment of textile, biological samples and polymers. It is a cylinder 1.2 m in diameter and 2 m long. Central electrode is powered and it is 2 cm in diameter. A stable uniform plasma is produced at 13.56 MHz and for powers in the range from 20 W to several hundred watts. We have used current and voltage probes to measure voltage and current waveforms and obtain the real power transmitted to the plasma. We will show how these waveforms depend on the power, gas, and pressure. In a smaller chamber of a similar geometry increasing the power led to a smaller percentage of the power transmitted to the plasma while in this case the percentage of transmitted power is constant and reasonably high.

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