

The ball-pen probe represents a new unique probe recently developed at the Institute of Plasma Physics in Prague for direct measurement of plasma potential at the CASTOR tokamak. Presently is the probe utilized also on several other high-temperature devices in Europe. In recent years one has aimed to use ball-pen probe also in conditions for which it was not originally intended. The aim of this bachelor thesis is to experimentally demonstrate that the ball-pen probe is suitable for the direct measurement of the plasma potential in low-temperature weakly magnetized plasma generated by a DC cylindrical magnetron by performing comparative measurements using a Langmuir probe.