

## Measurement of plasma potential by a biased cut off probe

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Cut off probe, the efficient method, can measure the plasma parameters like the plasma electron density and the electron temperature. Plasma potential is also one of the important parameters in plasma processing but cannot be measured by cut off probe yet. Thus we developed method to measure plasma potential by focusing on relation between bias on a tip and sheath around tip. The system consist of a ICP(Inductive Coupled Plasma) source, a Network analyzer and a bias tee that can be bridge apply DC voltage on the cut off probe tip. Plasma potential is identified by using this system. The results corresponded well with the measured results by single langmuir probe(SLP).