

Research on parallelization mechanism of inductively coupled plasma for large area plasma source

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Inductively coupled plasma having the high-density is often used for high productivity in the plasma processing. In large area processing, the plasma can be generated by using the multi-pole connected in parallel. However, in case of this, the power cannot transfer to plasma uniformly. To address the problem, we studied the mechanism of inductively coupled plasma connected in parallel by using transformer model. We also studied about the change of the plasma parameters over the time through the power balance equation and particle balance equation.

Keywords: Inductively coupled plasma , parallelization, transformer model