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Comparison between Two 450 mm Multi-Electrode Models

박기정, 이윤성, 유대호, 이진원, 장홍영

한국과학기술원

In semiconductor industry, it is expected that plasma process which use 450 mm source will be used at next generation. However, main obstacle of the large area plasma source is plasma uniformity from it. When electrode is enlarged, field difference between center area and side area reduces the plasma uniformity [1-3]. Therefore we investigate multi-electrode which diminish this field difference. We designed two multi-electrode models. One has two segments and the other has five segments. Each multi-electrode model is connected with two power generator and two matchers. One generator and one matcher is connected with center electrode part. The other one generator and the other one matcher is connected with side electrode part. The ion density is measured at 29 points by using floating harmonic method [4-6]. After measuring the data of each multi-electrode model, we discuss the difference of profile between two models' data.

References

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