Plasma Consult

2.45 GHz Microwave Plasma Source SLAN I-DS

Fig. 1: SLAN I-DS

Remote deposition of scratch resistant films by use of slot antenna microwave plasma source

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The work described below was performed using a PlasmaConsult SLAN-I-DS microwave plasma source.

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Remote deposition of scratch resistant films by use of slot antenna microwave plasma source

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Abstract

The slot antenna microwave plasma source is used for remote plasma deposition of scratch resistant films on polycarbonate substrates. A grid separates the primary discharge from the process chamber. The monomer hexamethyldisiloxan is distributed 5-50 mm over the substrate positioned 5-25 cm from the separation grid. With argon in the primary discharge a good sticking interface polymer layer grows. An additional amount of oxygen leads to a quartzlike layer on top. Deposition rate is typically 0.5 µm/min. Rubber and tumble abrasion tests are used to characterise the scratch resistance.

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APPLICATION NOTE

SLAN I-DS