PECVD로 증착된 SiO_2의 non-uniformity 특성 연구

함용현, 권광호
고려대학교

The study on the SiO_2 film non-uniformity by Plasma Enhanced Chemical Vapor Deposition

Yong-Hyun Ham, Kwang-Ho Kwon
Korea Univ.

Abstract : In this work, the study on the SiO_2 film non-uniformity by PECVD (Plasma Enhanced Chemical Vapor Deposition) was performed. Plasma diagnostics was analyzed by a DLP(Double Langmuir Probe) and a probe-type QMS(Quadrupole Mass Spectrometer) in order to investigate the spatial distribution of the plasma species in the chamber. The relationship between the plasma species and the depositing rate of the films was examined. On the basis of this work, it was confirmed that O radical density mainly contributed to the increase in the depositing rate of the SiO_2 films and the electron temperature in the plasma had a main effect on the formation of the oxygen radicals.

Key Words : PECVD, non-uniformity, spatial distribution, SiO_2, QMS