

가스흐름 제어에 의한 균일한 다결정 3C-SiC 박막 성장

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The uniform polycrystalline 3C-SiC thin film growth by the gas flow control

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Abstract : The surface flatness of heteroepitaxially grown 3C-SiC thin films is a key factor affecting electronic and mechanical device applications. This paper describes the surface flatness of polycrystalline 3C-SiC thin films by the gas flow control according to the location change of geometric structure. The polycrystalline 3C-SiC thin film was deposited by APCVD(Atmospheric pressure chemical vapor deposition) at 1200°C using HMDS(Hexamethyldisilane : $\text{Si}_2(\text{CH}_3)_6$) as single precursor, and 5 slm Ar as the main flow gas. According to the location of geometric structure, surface fringes and flatness changed. It shows the distribution of thickness is formed uniformly in the specific location of the geometric structure.

Key Words : CVD, Polycrystalline 3C-SiC, Geometric structure