

Abstract Submitted
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Investigation of the synthesized graphene on the copper foil depending on the plasma condition. HYUNJAE PARK, National fusion research institute, JIN-HA SHIN, Sungkyunkwan University, GANG-IL LEE, YONG HO JUNG, YONG SUP CHOI, National fusion research institute, YOUNG IL SONG, Sungkyunkwan University, PLASMA TECHNOLOGY RESEARCH CENTER TEAM, ADVANCED MATERIALS AND PROCESS RESEARCH CENTER TEAM — In this study, direct growth of graphene nano-walls (GNWs) synthesized by electron cyclotron resonance (ECR) plasma on Cu foil at low temperature. The direct growth method is simplified manufacturing process and avoid damages and contaminants from graphene transfer process. The density and temperature of plasma were measured using Cylindrical Langmuir probe analysis. Using the Residual Gas Analyzer (RGA, SRS200) for the generated gas analysis by plasma conditions. The morphologies and structures of GNWs were characterized by field-emission scattering electron microscope (FESEM), Transmission electron microscopy (TEM), 3D optical measurement system and Raman spectra measurement.

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