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**Synthesis and sensing application of large scale bilayer graphene**

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Seoul National University — We have synthesized large scale bilayer graphene by using Chemical Vapor Deposition (CVD) in atmospheric pressure. Bilayer graphene was grown by using CH<sub>4</sub>, H<sub>2</sub> and Ar gases. The growth temperature was 1050°. Conventional FET measurement shows ambipolar transfer characteristics. Results of Raman spectroscopy, Atomic Force microscope (AFM) and Transmission Electron Microscope (TEM) indicate the film is bilayer graphene. Especially, adlayer structure which interrupt uniformity was reduced in low methane flow condition. Furthermore, large size CVD bilayer graphene film can be investigated to apply sensor devices. By using conventional photolithography process, we have fabricated device array structure and studied sensing behavior.

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