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Growth of Graphene on Electro-polished Copper Foil by Thermal CVD

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The continuous monolayer graphene was synthesized on electro-polished copper foil. Electro-polishing sticks off the coating layer of copper foil, which prevents the continuous graphene growth. The quality of continuous graphene is dependent on roughness of copper foil. Copper foil roughness could be controlled by changing polishing condition. The effects of working voltage (4-6 V) and time (30-70 sec) for electro-polishing were systematically examined. The change of surface roughness was checked with AFM.

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