Understanding and Controlling the Formation of Graphene on Cu Foil - The Effect of Impurity Diffusion

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The outstanding properties of graphene make it highly attractive material for a wide range of applications. Chemical vapor deposition (CVD) of graphene on the copper foil is one of the most promising methods for emerging industrial applications. However, the reproducibility and the quality of graphene films are the important challenges. In order to overcome these challenges understanding of the growth mechanisms and the effects of processing parameters are crucial. In this talk a systematic investigation of the effects of surface stresses and impurity diffusion on the graphene formation on polycrystalline Cu will be presented.