Possibility of determining the graphene doping level using Raman spectra

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Abstract. Raman spectroscopy was used to study the structure of graphene synthesized from methane by chemical vapor deposition at atmospheric pressure and transferred to a SiO2/Si substrate using various transfer and polymer removal methods. It was found that the dependences of the 2D peak positions on the G peak positions of the studied samples were well-behaved linear functions with slopes of ~2.2 that suggested the existence of biaxial stress in the graphene. It was discovered that the doping in the samples changed.

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