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Modified Electronic Structure of Distorted Graphene on Ru(0001) : STM and STS Study WON-JUN JANG, JONG KEON YOON, HOWON KIM, SE-JONG KAHNG, Korea University — Graphene is an attractive material that has special electronic features such as massless carriers, Dirac cones and integer quantum Hall effect. Graphene can be epitaxially grown on metal surfaces. Electronic structure of Graphene on Ru(0001) was studied using scanning tunneling microscopy and scanning tunneling spectroscopy. A monolayer graphene on Ru(0001) has periodically rippled structures due to the difference in the lattice parameters of substrate and graphene, and shows inhomogeneities of charge distribution. The monolayer graphene can have extra inhomogeneities that are possibly made by the geometrical or electronic variation of substrate, which is explained by our spectroscopy data.

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