

ARPES Evidence of Decoupling of Graphene Film from Ruthenium Substrate by Interface Si-Intercalation (LT26)

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Thermally annealing ruthenium single crystals is a most effective method to fabricate large-scale graphene, but the strong coupling between graphene film and ruthenium substrate makes further research much more complicated. High-resolution angle-resolved photoemission spectroscopy revealed that intercalation of Si on Ru(0001) can lead a decoupling of graphene film from Ru substrate, as demonstrated by the clear and linear bands near the Dirac point.