

ELECTRONIC PROPERTIES OF GRAPHENE ON METALLIC AND SEMICONDUCTING SURFACES

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The outstanding properties of graphene render it a top candidate for substituting silicon in future electronic devices. The graphene synthesis approaches mainly rely on conditions typically achieved in specialized laboratories and result in graphene sheets whose electronic properties are often altered by interactions with substrate materials. Recently it was demonstrated that graphene synthesis on commercially available cubic SiC/Si substrates is possible [1]. Our angle-resolved photoemission data clearly demonstrate that the electronic properties of graphene obtained on cubic SiC are basically unaltered by the substrate, at difference to graphene grown on other metallic or semiconducting substrates.

References

- [1] V. Aristov *et al.*, Nano Lett., 10 (2010) 992995.