

Novel functionalization reactions of Graphene on surfaces

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Since the production and characterization of graphene mono- and few-layers, much effort has been directed toward the chemical functionalization as a tool for tuning graphene chemical and physical properties.¹ Besides, a controllable graphene modification is a mandatory step for the grafting of functional biomolecules, like DNA or proteins, which are often used in bioelectronics.²

This work is focused on the development of chemical modifications on the graphene surfaces based on covalent approaches in order to produce stable components for biomedical devices. In particular, we have addressed low aggressive novel functionalisation strategies based on cycloaddition and radical reactions. In addition, we have also explored the influence of different substrates on the reactivity behaviour of graphene.

References

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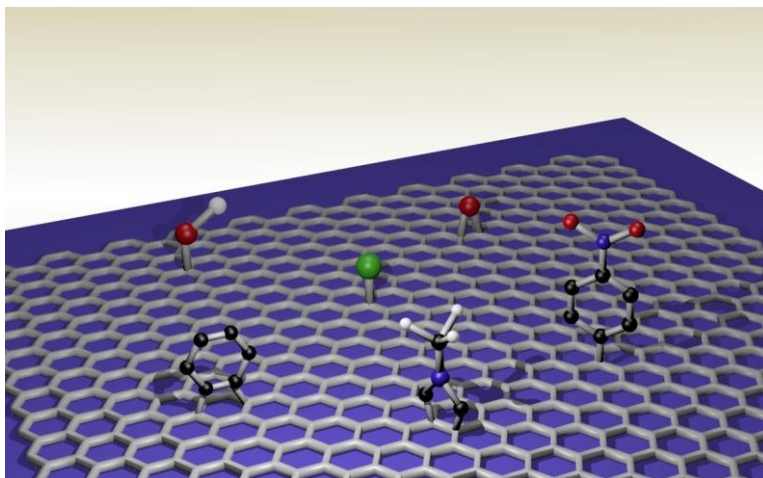


Figure 1: (Calibri 7)