

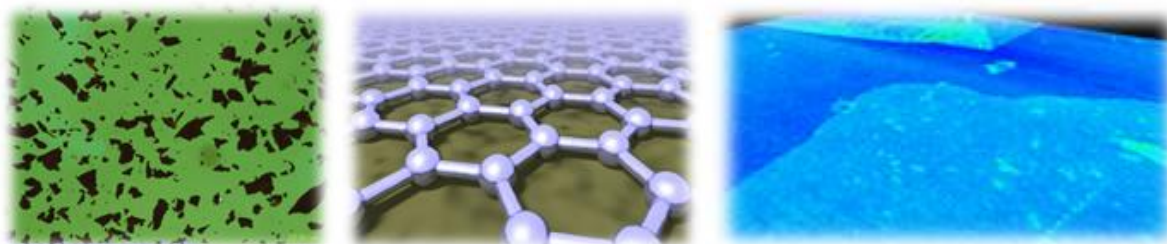


A main advantage of graphene technology is that, being based on carbon, it takes advantage of the huge power and versatility of carbon-based organic chemistry, which allows a fantastic diversification of properties and functionalities at the nanoscale.

Graphene can be chemically functionalized exactly like organic molecules; on the other hand, Graphene stands as a very suitable electronic platform material giving its close chemical affinity with organic molecules, from π -conjugated materials, to fullerene, carbon nanotubes or DNA. Graphene properties can therefore be widely enriched and diversified by using organic chemistry, through chemical doping, and molecular or atomic functionalization of its surface.

Controlled chemistry of graphene and production of hybrid materials could thus overcome current technological locks, paving the way to considerable improvements of graphene-based devices performances and enlargement of the spectrum of applications, from high frequency devices, to switches and chemical sensors.

The "GRAPHENE CHEMISTRY & MATERIALS" workshop aims at validating the roadmap developed within the GRAPHENE FLAGSHIP Pilot initiative, in particular in the fields of graphene chemical functionalization for electronics and composites applications, by an open consultation with leading experts in the field.



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