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Graphene exfoliation in the presence of semiconducting polymers for improved film homogeneity and electrical performances

Tim Leydecker, Matilde Eredia, Fabiola Liscio, Silvia Milita, Georgian Melinte, Ovidiu Ersen, Michael Sommer, Artur Ciesielski, Paolo Samorì



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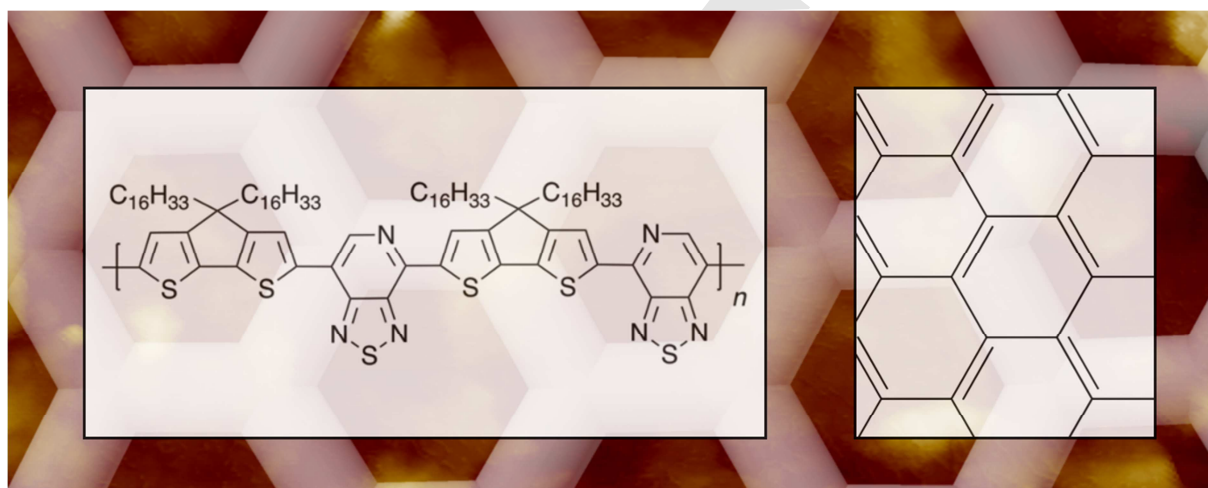
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Hybrid graphene/semiconducting polymer films are obtained in one step by making use of ultrasound-assisted liquid-phase exfoliation of graphite in the presence of carefully selected polymers. Exfoliation of graphite towards graphene can be attained in the presence of organic polymers. In particular, the electrical characterization graphene/PCDTPT hybrids reveal a 30-fold increase of the mobility compared to pristine polymer samples.

ToC figure



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