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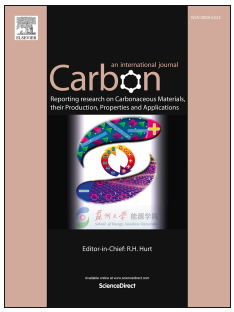

Transfer-free growth of polymer-derived graphene on dielectric substrate from mobile hot-wire-assisted dual heating system

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Graphical Abstract

Transfer-Free Growth of Polymer-Derived Graphene on Dielectric Substrate from Mobile Hot-Wire-Assisted Dual Heating System

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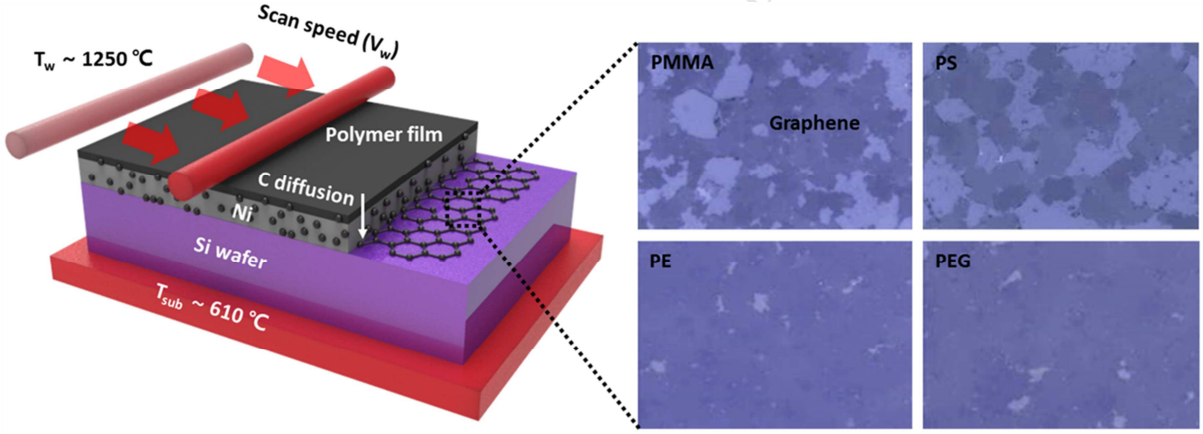

Transfer-free growth of graphene from a dual heating system is developed. The dual heating system allows a higher amount of carbon diffusion into nickel layer, which is related to the graphene coverage, than that of the conventional hot-wall type chemical vapor deposition. Moreover, Coverage and crystallinity of as-grown graphene are enhanced when using thermally stable polymer as a carbon source.