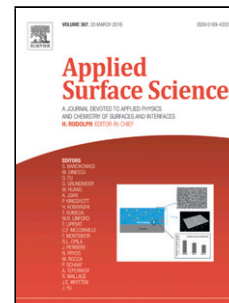


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1 **Structural and electronic characterization of graphene grown by chemical vapor**
2 **deposition and transferred on sapphire**

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We present a combination of magnetotransport and local probe measurements on graphene grown by chemical vapor deposition on copper foil and subsequently transferred on a sapphire substrate. A rather strong p -doping is observed ($\sim 9 \times 10^{12} \text{ cm}^{-2}$) together with quite low carrier mobility ($\sim 1350 \text{ cm}^2/\text{V}\cdot\text{s}$). Atomic force and tunneling imaging performed on the transport devices reveals the presence of contaminants between sapphire and graphene, explaining the limited performance of our devices. The transferred graphene displays ridges similar to those observed whilst graphene is still on the copper foil. We show that, on sapphire, these ridges are made of different thicknesses of the contamination layer and that, contrary to what was reported for $h\text{BN}$ or certain transition metal dichalcogenides, no self-cleansing process of the sapphire substrate is observed.

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