

Optical characterization of directly deposited graphene on a dielectric substrate - DTU Orbit (09/11/2017)

Optical characterization of directly deposited graphene on a dielectric substrate

By using scanning multiphoton microscopy we compare the nonlinear optical properties of the directly deposited and transferred to the dielectric substrate graphene. The direct deposition of graphene on oxidized silicon wafer was done by utilizing sacrificial copper catalyst film. We demonstrate that the directly deposited graphene and bi-layered transferred graphene produce comparable third harmonic signals and have almost the same damage thresholds. Therefore, we believe directly deposited graphene is suitable for the use of e.g. nanofabricated optical setups. (C) 2016 Optical Society of America

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