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Chemically-doped graphene with improved surface plasmon characteristics: an optical near-field study

The near-field plasmonic characteristics of chemically-doped graphene were studied using nano-imaging. The results indicated that upon ${\rm HNO_3}$ doping, the graphene plasmon strengths were enhanced due to the injection of charge carriers, while the plasmon damping rates were reduced. The findings can provide important insights into the understanding of the plasmon performance of graphene upon chemical doping.



