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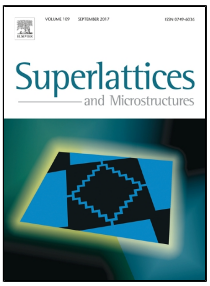

Experimental investigation of the Contact Resistance of Graphene/MoS_2 interface treated with O_2 Plasma

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In this study, we investigate the contact resistances of different layered graphene film with MoS_2 film with Ti/Au electrodes under different O_2 plasma treatment time using the circular transmission line model (CTLM). Annealing process followed O_2 plasma process to reduce the oxygen element introduced. Under the optimized condition of the O_2 plasma treatment, a relatively low contact resistance (~35.7 Ohm·mm) without back gate voltage in single-layer graphene/MoS_2 structure at room temperature was achieved compared with the existing reports.