*Article*

# N-doped Graphene with Low Intrinsic Defect Densities via a Solid Source Doping Technique

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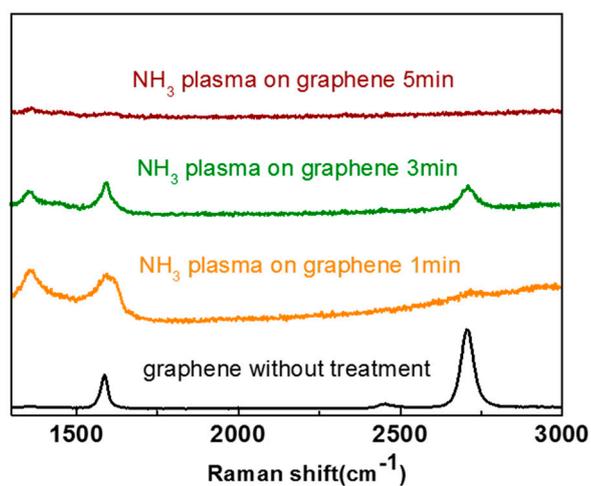[7]  Department of Materials Engineering, Ming Chi University of Technology, New Taipei city, 24301, Taiwan
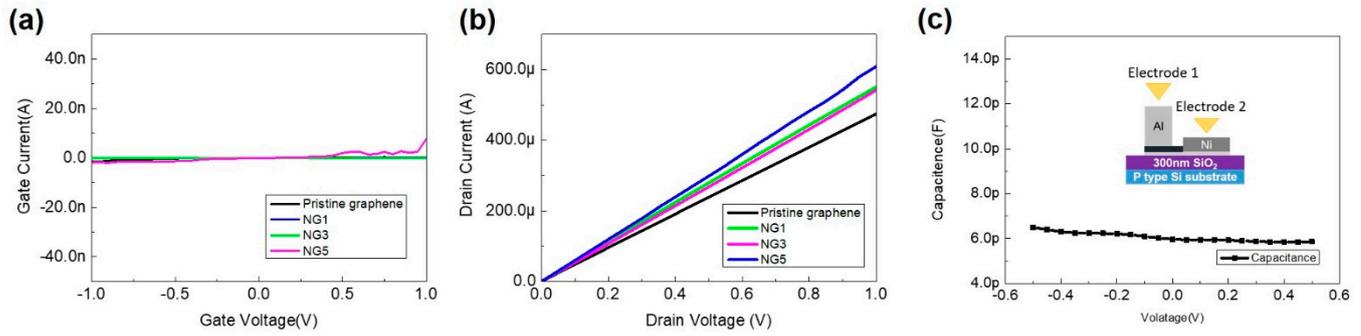[*]  Correspondence: cslai@mail.cgu.edu.tw; Tel.: +886(03)2118800#5751
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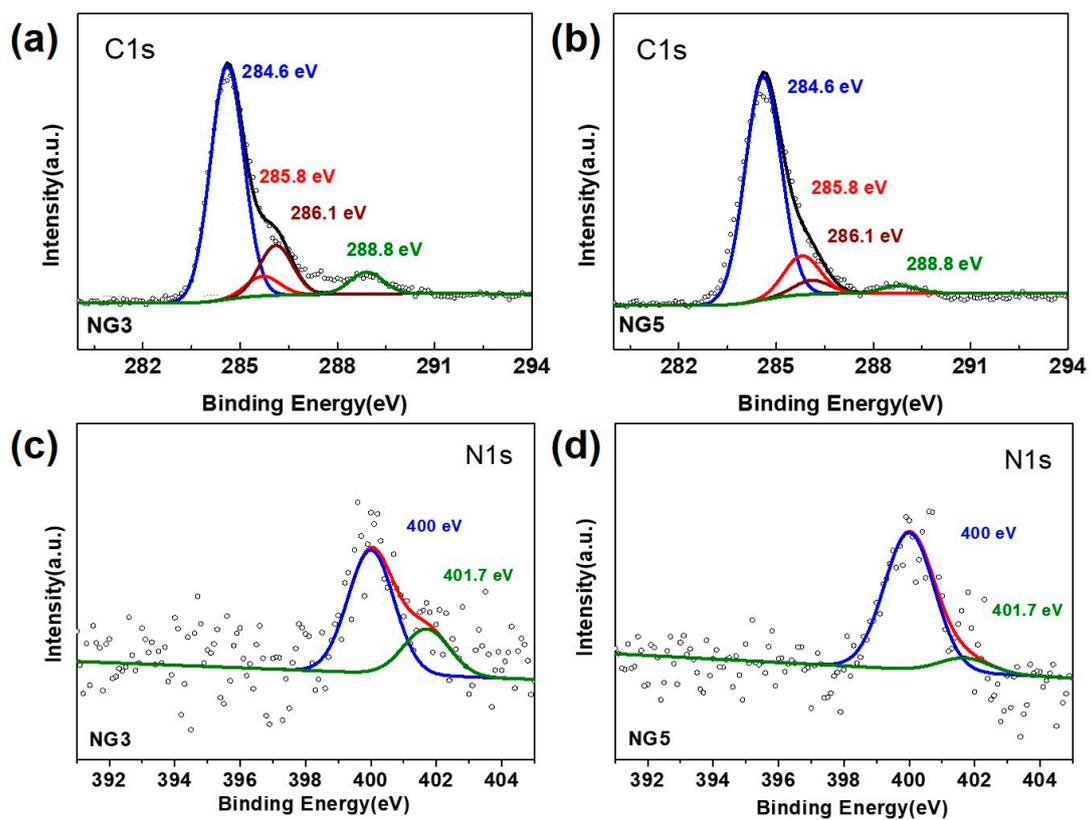
**Figure S1.** XPS spectra for N-doped graphene. (a-b) C*1s* core level for NG3 and NG5; (c) N*1s* core level for NG3 and NG5.



**Figure S2.** Raman spectrum of graphene without and with a 1 min, 3 min, and 5 min $NH_3$ plasma treatment.

**Figure S3.** (a) The $I_g/V_g$ output characteristic curve of pristine graphene and N-doped graphene; (b) the $I_d/V_d$ curve of pristine graphene and N-doped graphene; (c) gate capacitance of pristine graphene and N-doped graphene, the inset illustration shows the structure of the capacitance measurement.