

ARTICLE

Tuning of Fluorine Content in Graphene: Towards Large Scale Production of Stoichiometric Fluorographene

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SUPPORTING INFORMATION

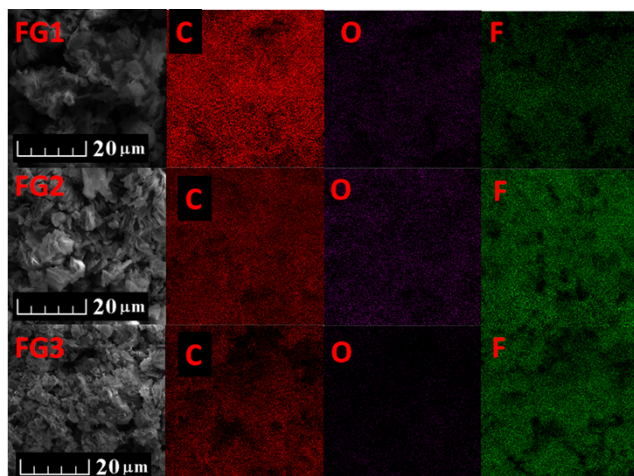


Fig. S11 The distribution of elements in fluorinated graphenes obtained by EDS.

Table SI 1 The deconvolution results of C 1s peak.

Bond type	FG1	FG2	FG3
C=C	48.0	56.4	37.7
C-C	24.9	5.8	20.8
C-O	11.5	11.6	7.2
C=O	5.9	6.3	7.2
C-F	2.9	5.5	5.5
O-C=O	2.8	5.5	0.1
$\pi - \pi^*$	2.8	0.0	3.6
CF ₂	1.3	4.7	6.0
CF ₃	0.0	4.1	11.9

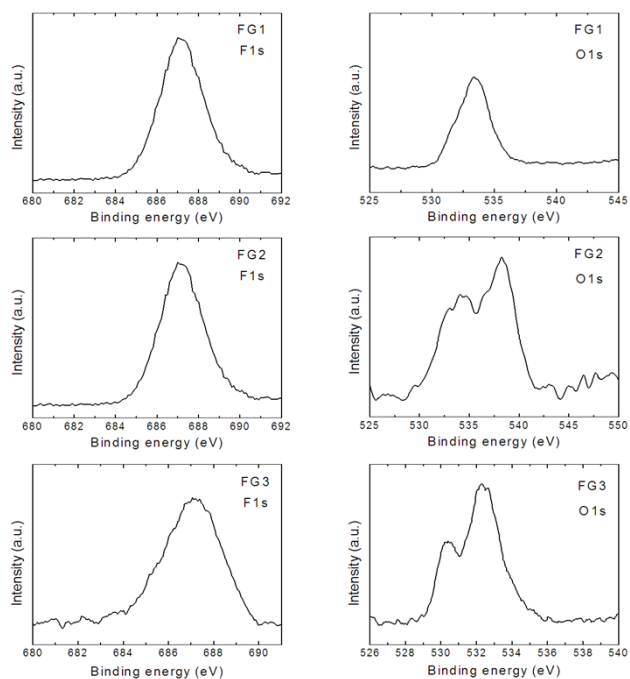


Fig. S12 High resolution spectra of O 1s and F 1s peak in fluorinated graphenes.

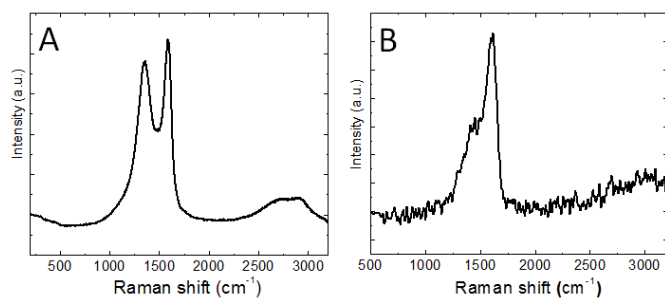


Fig. S13 The Raman spectra of graphene used for fluorination measured using 532 nm laser (Fig. S13-A) and 325 nm laser (Fig. S13-B).

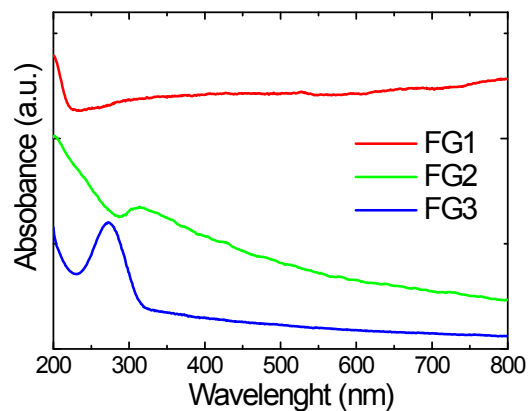


Fig. S14 The UV-VIS spectra of fluorographene suspension in acetonitrile (1 mg/ml).

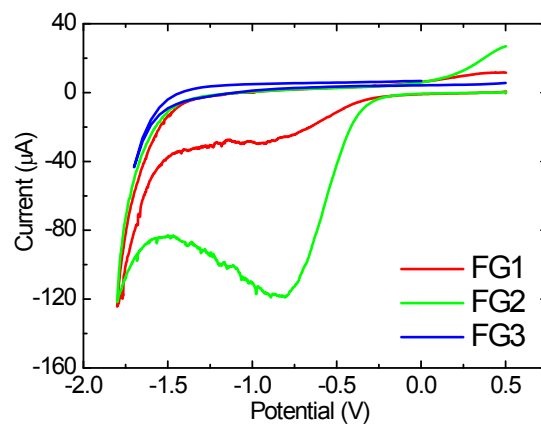


Fig. S15 The inherent electrochemistry of fluorinated graphenes. Measurement was performed in PBS supporting electrolyte (pH = 7.0, c = 0.05 M).

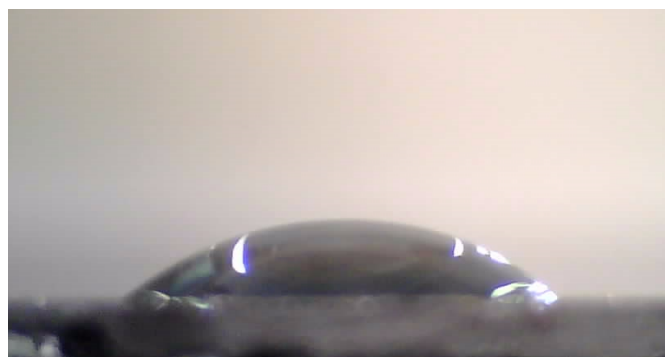


Fig. S16 The contact angle of silicon wafer coated using graphene before fluorination procedure.