**Supporting Information**

# Reduction in oxidative stress during cellular responses to chemically functionalised graphene

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**Supporting Figure**

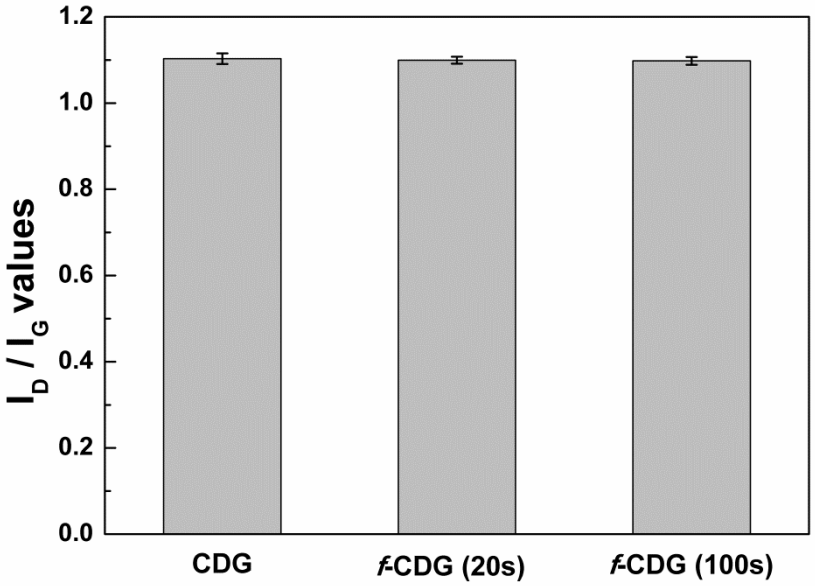


Figure S1. Average $I_D/I_G$ values with standard deviations obtained from the micro-Raman spectra measured for twenty points on each sample. The error bars indicate standard deviations.

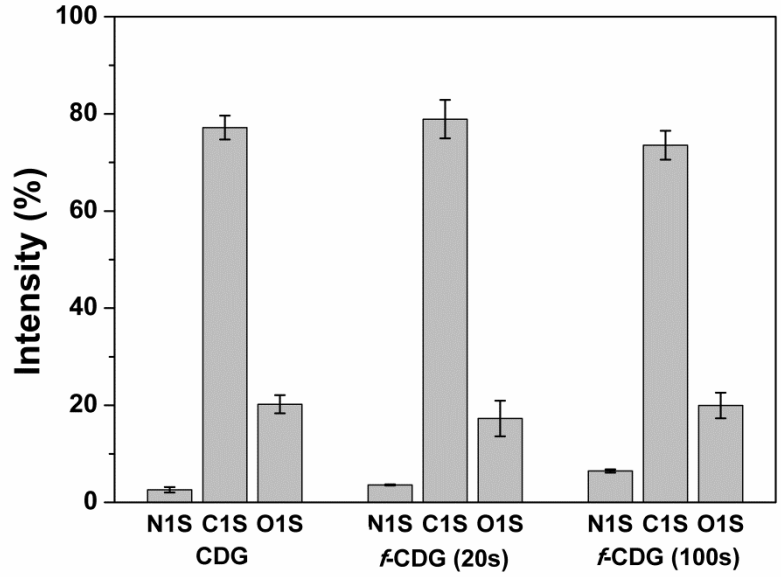


Figure S2. Average C, O and N binding components obtained from three XPS spectra for each sample. Error bars indicate standard deviations.

**Supporting Table**

Table S1. The binding component ratio of C, O and N obtained from the spectra of the CDG and *f*-CDG (20 and 100 s) thin films by XPS measurements in Fig. 2.

| | **CDG** | ***f*-CDG (20 s)** | ***f*-CDG (100 s)** |
|---|---|---|---|
| **C** | **82.1** | **84.0** | **79.5** |
| **O** | **16.4** | **12.6** | **14.7** |
| **N** | **1.5** | **3.4** | **5.8** |

Table S2. Component ratios from N 1s XPS spectra of CDG, *f*-CDG (20 s), and *f*-CDG (100 s) thin films

| | **Peak intensity ratios** | | |
|---|---|---|---|
| | **Pyridinic N** | **Pyrrolic N** | **Graphitic N** |
| | **398.5 eV** | **400.1 eV** | **401.5 eV** |
| **CDG** | **16.8** | **59.7** | **23.5** |
| ***f*-CDG (20s)** | **48.5** | **26.7** | **24.8** |
| ***f*-CDG (100s)** | **62.7** | **22.3** | **15** |

**Supporting Figure**

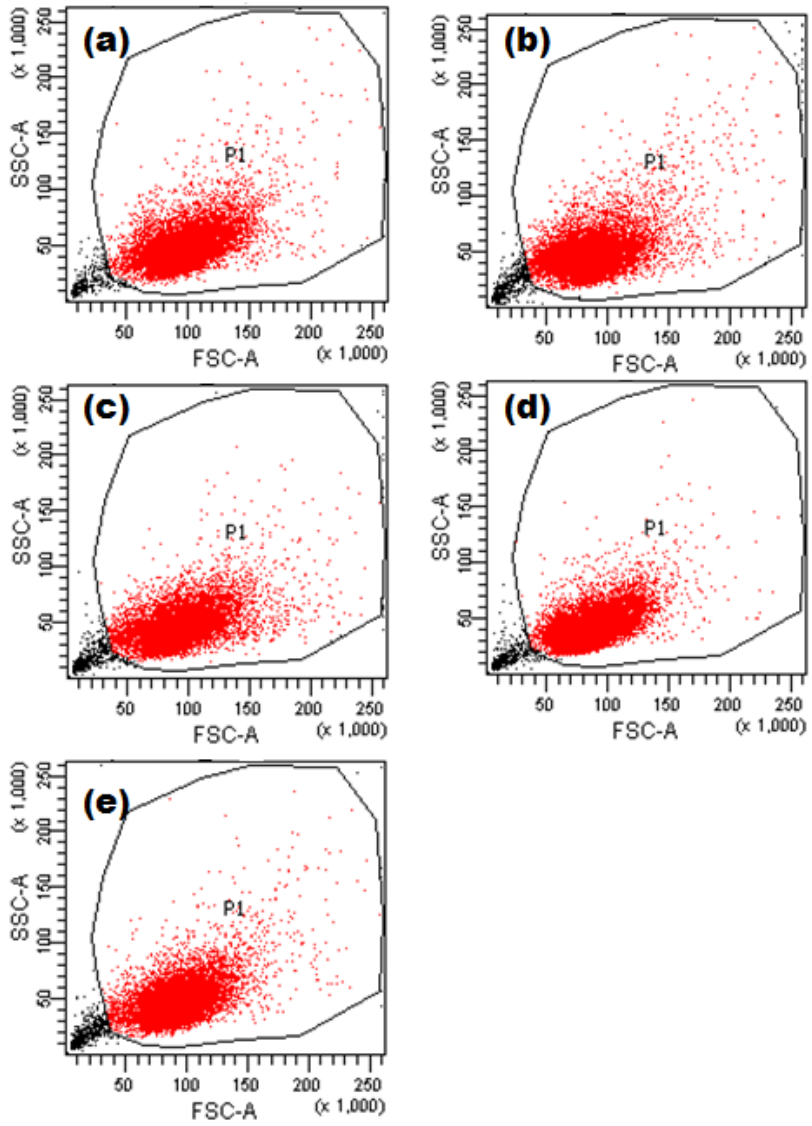


Figure S3. Flow cytometry analysis of ROS generation by SSC-A vs. FSC-A plots on the (a) negative control, (b) CDG, (c) *f*-CDG (20 s), (d) *f*-CDG (100 s) thin films, and (e) positive $H_2O_2$ (100 μM) plots.