

**Supplementary information:**

**Experimental review: Chemical reduction of graphene oxide (GO) to reduced graphene oxide (rGO) by aqueous chemistry**

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Table S1. Assignment and relative percentage of the functionalities arising from the deconvolution of the C 1s XPS spectra.

Sample	Peak BE (eV)	%	Functionalities
GO	284.6	27.11	C-C (sp <sup>2</sup> )
	285.6	16.28	C-C (sp <sup>3</sup> )
	286.9	46.65	C-O
	288.8	9.95	C=O
rGO <sub>2'</sub>	284.5	46.96	C-C (sp <sup>2</sup> )
	285.3	19.86	C-C (sp <sup>3</sup> )
	286.8	24.42	C-O
	288.9	8.76	C=O
rGO <sub>4'</sub>	284.6	50.62	C-C (sp <sup>2</sup> )
	285.3	22.45	C-C (sp <sup>3</sup> )
	286.9	17.98	C-O
	288.8	8.95	C=O
rGO <sub>8'</sub>	284.6	54.28	C-C (sp <sup>2</sup> )
	285.7	25.03	C-C (sp <sup>3</sup> )
	287.0	11.54	C-O
	288.8	9.15	C=O
rGO <sub>16'</sub>	284.6	57.00	C-C (sp <sup>2</sup> )
	285.5	23.54	C-C (sp <sup>3</sup> )
	286.9	11.65	C-O
	288.8	7.81	C=O
rGO <sub>32'</sub>	284.6	59.72	C-C (sp <sup>2</sup> )
	285.6	22.05	C-C (sp <sup>3</sup> )
	287.0	11.76	C-O
	288.8	6.47	C=O
rGO <sub>64'</sub>	284.6	58.96	C-C (sp <sup>2</sup> )
	285.6	22.07	C-C (sp <sup>3</sup> )
	287.0	12.28	C-O
	288.9	6.69	C=O
rGO <sub>128'</sub>	284.6	58.19	C-C (sp <sup>2</sup> )
	285.6	22.09	C-C (sp <sup>3</sup> )
	287.0	12.80	C-O
	288.9	6.91	C=O
rGO <sub>192'</sub>	284.6	64.42	C-C (sp <sup>2</sup> )
	285.6	21.95	C-C (sp <sup>3</sup> )
	287.0	8.45	C-O
	288.9	5.19	C=O
rGO <sub>1440'</sub>	284.6	63.40	C-C (sp <sup>2</sup> )
	285.6	21.77	C-C (sp <sup>3</sup> )
	286.9	9.18	C-O
	288.8	5.65	C=O