SUPPORTING INFORMATION

Eco-Friendly and Mechanochemically Functionalised Graphene with Quick and High Water Dispersibility

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SEM images of a) EG4, b) GFMN10.54 and c) GFMN126 demonstrating that these samples have not resulted in better exfoliation and fragmentation compared to GFMN114.



Figure S1. Ball-milled graphite samples. a) EG4, b) GFMN10.54 and c) GFMN126.

Table S1. The values of atomic concentrations of O1s, C1, N1s, P2p and C/O ratios obtained by XPS survey spectra

Sample	O1s (%)	C1s (%)	N1s (%)	P2p (%)	C/O ratio
EG	2.05	97.95	-	-	47.8
EG 2	2.04	97.93	-	-	48.0
EG 4	2.09	97.9	-	-	46.8
EG 6	2.1	97.9	-	-	46.6
GFMN112	2.05	97.71	0.21	0.03	47.7
GFMN114	3.2	96.15	0.5	0.14	30.0
GFMN116	2.53	97.17	0.25	0.05	38.4
GFMN10.54	2.2	97.7	0.1	0.02	44.4

GFMN126	2.82	96.6	0.48	0.09	34.3

Sample	ID/IG		
EG	0.05		
EG2	0.08		
EG 4	0.12		
EG 6	0.18		
GFMN112	0.15		
GFMN114	0.43		
GFMN116	0.25		
GFMN10.54	0.15		
GFMN126	0.2		

Table S2. I_D/I_G ratios of EG and ball-milled samples