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ESI

Capsules-embedded reduced graphene oxide: Synthesis, mechanism and electrical properties

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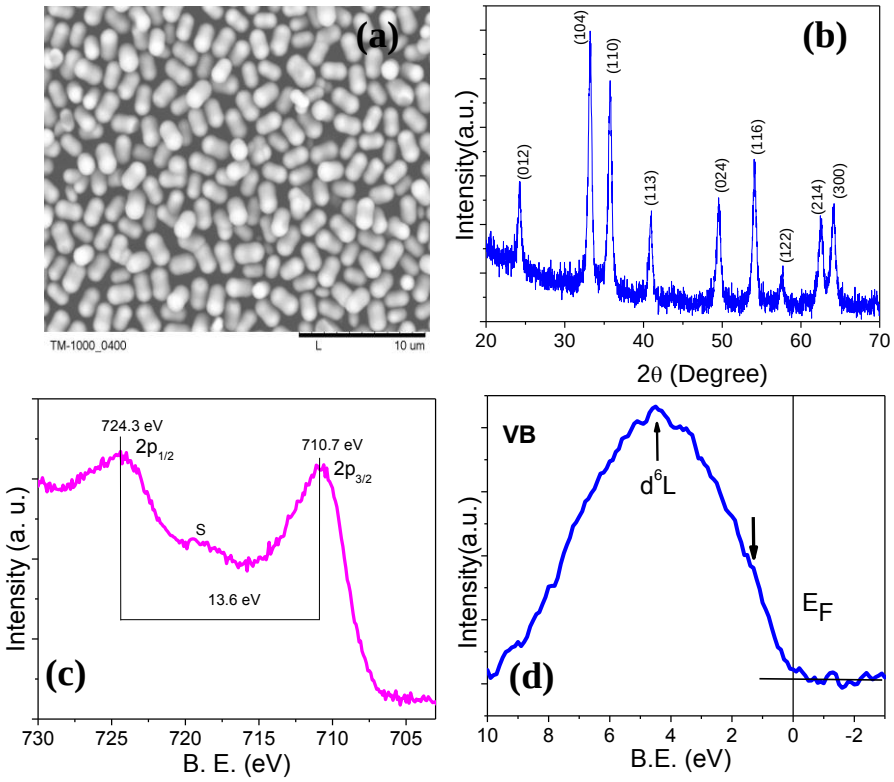

Fig. S1: (a) SEM microstructure, (b) XRD data, (c) Fe 2p spectrum and (d) VB spectrum of synthesized α-Fe_2O_3 particle

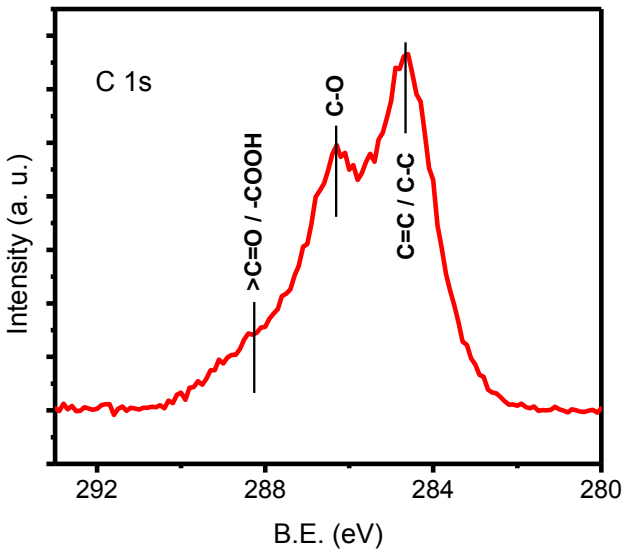

Fig. S2: C 1s XPS spectrum of GO

Table I - Comparison of electrical conductivity of rGO obtained by two-step method (photocatalytic / vacuum annealing) with reported reduction methods.

Reduction method	**Conductivity ($S\ m^{-1}$)**	**Reference**
N_2H_4	156.2	Ref-17
NaOH	3.6	Ref-17
$NaBH_4$	0.006	Ref-17
Solvothermal	4.8	Ref-17
High temperature	231.1	Ref-17
Vacuum annealing	~50	Ref-51
Two-step (Reduction / high temperature annealing)	267.8	Ref-17
Two-step (Photocatalytic reduction / vacuum annealing)	2000	Present work