Electronic Supplementary Material (ESI) for Green Chemistry.

Supporting Information

A one-pot biosynthesis of reduced graphene oxide (RGO)/bacterial cellulose (BC) nanocomposites

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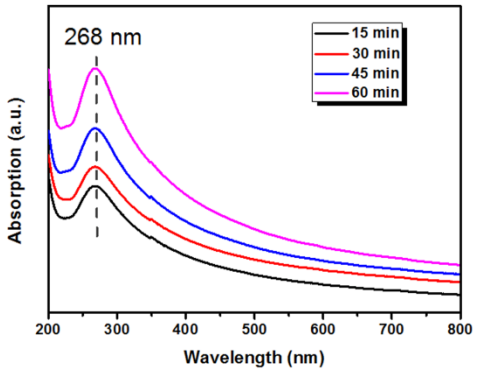

Figure S1.UV-Vis spectra of an RGO aqueous dispersion as a function of reaction time.

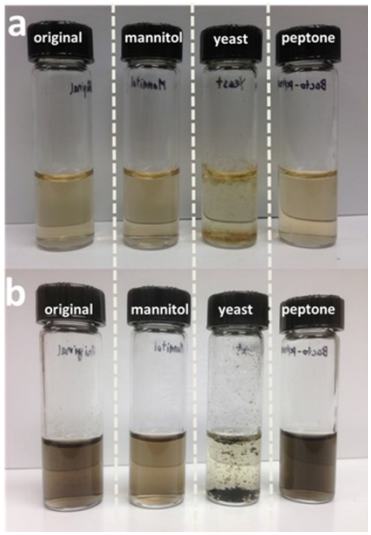

Figure S2. The aqueous solutions of graphene oxide containing a single composition of culture medium (from left to right are: reference (*i.e*. original), mannitol, yeast extract, and peptone) before (a) and after (b) the autoclave process.

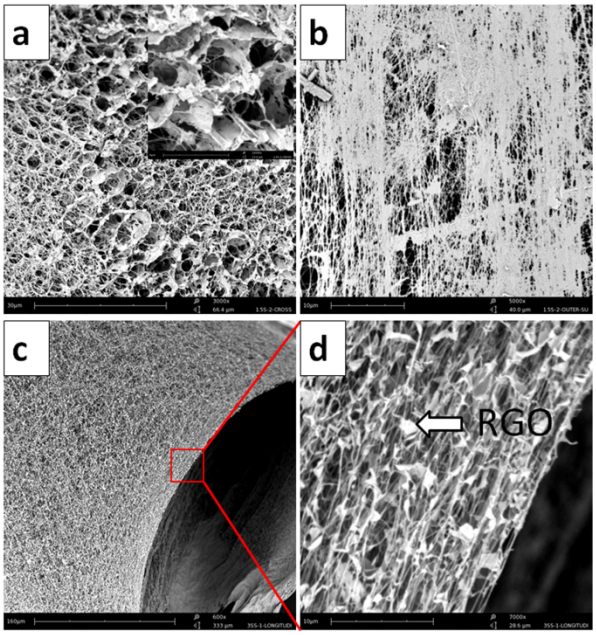

Figure S3. Cross-sectional SEM image (a) of BC/RGO composite aerogel; the outer layer of the cellulose-only area (b), the aligned longitudinal structure of the aerogel (c), larger magnification of (c).

Table S1. Chemical and green methods used to reduce the graphene oxide.

Methods	Material Used	Reaction Conditions		UV-Vis absorption peak	I_D/I_G	Reference
		Temperature (°C)	Time (minute)			
Chemical	Hydrazine	Room Temperature	95	270	Unreported	[1]
Green	Amino Acid	26±2	4320	270	1.17	[2]
	L-ascorbic Acid	80	1440	Unreported	1.752	[3]
	Bovine Serum Albumin (BSA)	55-90	180-1440	268	Unreported	[4]
	Lyzozyme	80	1440	266-271	1.7	[5]
	Green Tea	100	480	271	Unreported	[6]
Present work	Yeast extract	121	15	268	0.999	

References

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