Electronic Supplementary Material (ESI) for Nanoscale.

Supplementary Information

Surfactant-Assisted Fabrication of 3D Prussian Blue- Reduced Graphene Oxide Hydrogel as Self-Propulsion Motor for Water Treatment

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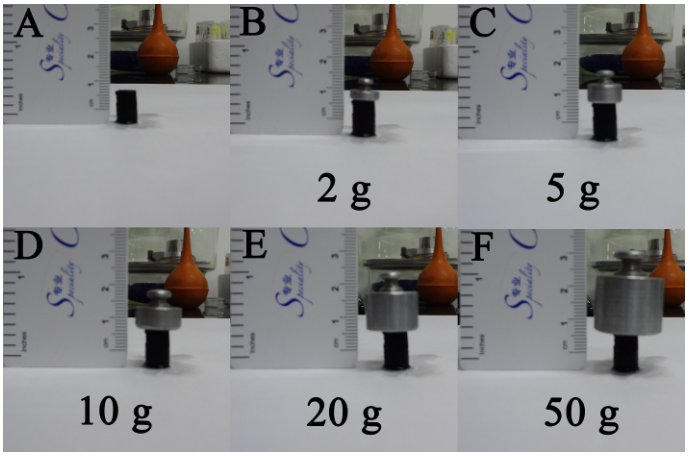

Figure S1 Photography images of the PBSGH treated with different weights.

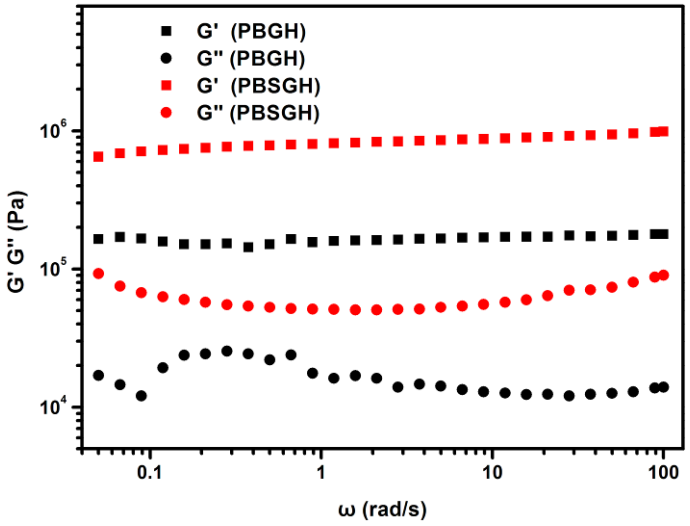

Figure S2 Storage (G') and loss moduli (G") versus frequency (ω) for PBGH and PBSGH.

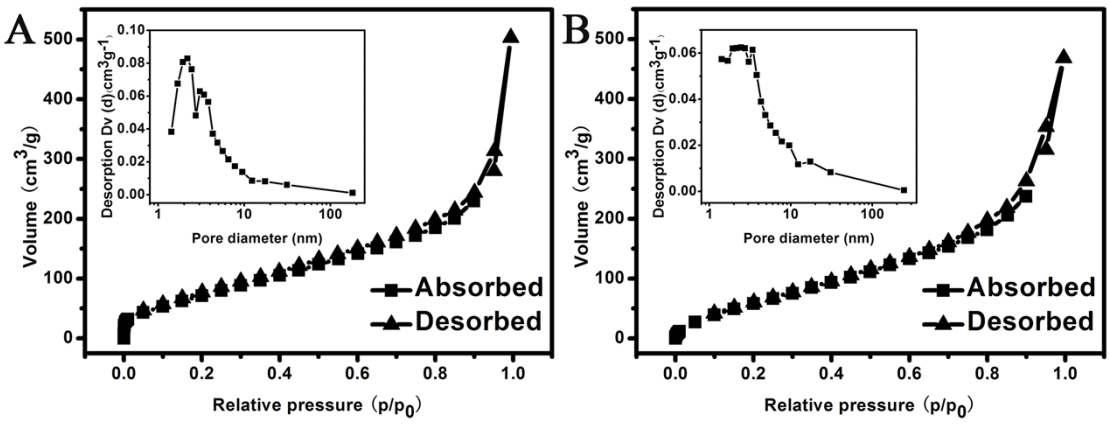

Figure S3 N_2-sorption isotherms and pore size distribution (inset) of the PBGH (A) and PBSGH (B) after freeze-drying.

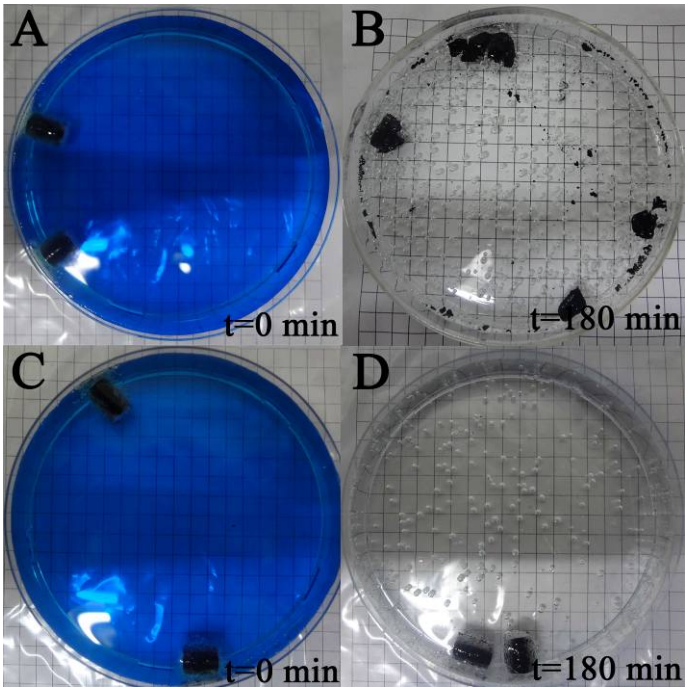

Figure S4 Photography images of self-propulsion degradation process at 10% H_2O_2 with PBGH (A, B) and PBSGH (C, D).

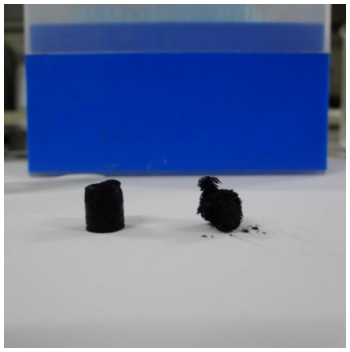

Figure S5 Photography images of PBSGH (left) and PBGH (right) after freeze-drying.

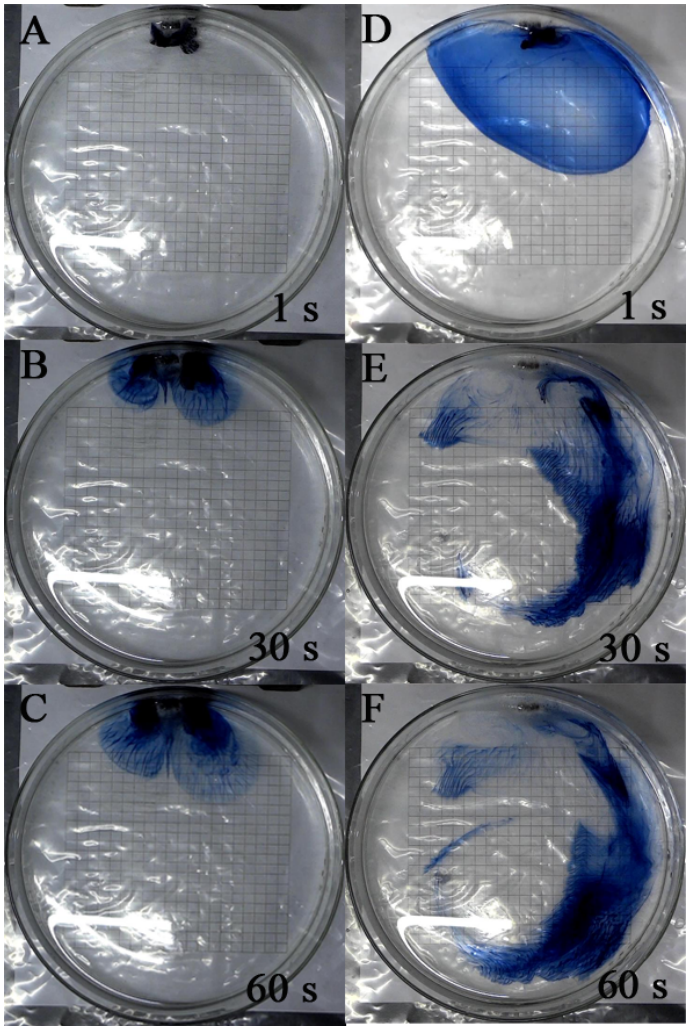

Figure S6 Photography images of hydroxyl radicals diffusion over time at 7.5% (A, B, C) and 10% (D, E, F) H_2O_2 with PBSGH and 100 μL of blue ink as dye. The unit grid size is 0.5×0.5 cm.

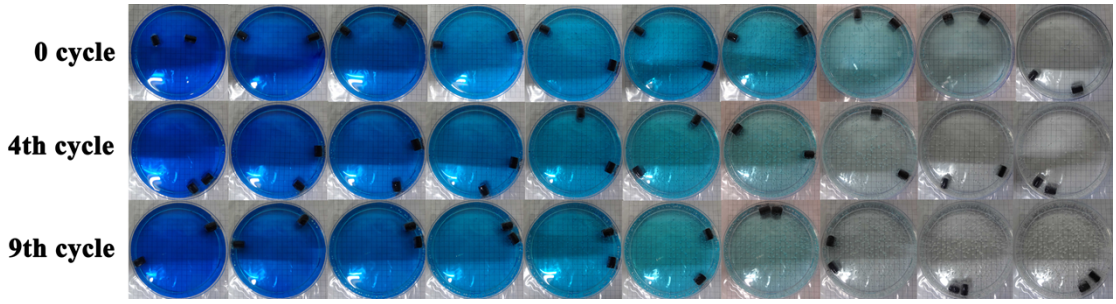

Figure S7 Photography images of self-propulsion degradation process at 10% H_2O_2 with different cycles.

Table S1 ICPMS analysis of S concentration in the degradation solution and SDS standard solution.

Solution	After reacting with PBSGH	After reacting with PBGH	0.1 μg g^{-1} SDS	1.0 μg g^{-1} SDS	10 μg g^{-1} SDS
S [μg g^{-1}]	2.772	2.574	0.0357	0.1294	0.7007

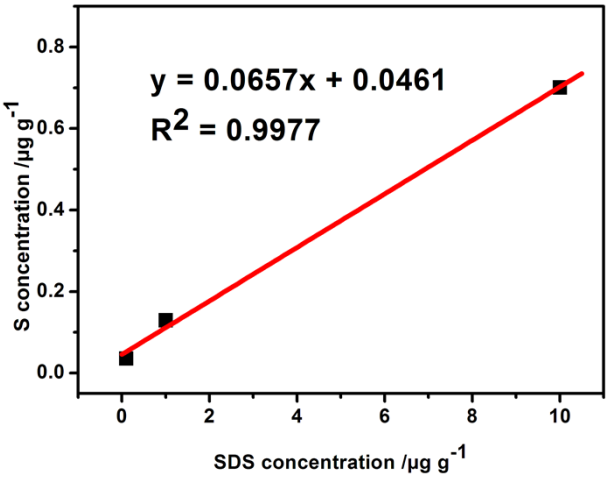

Figure S8 The calibration curve for SDS concentration.

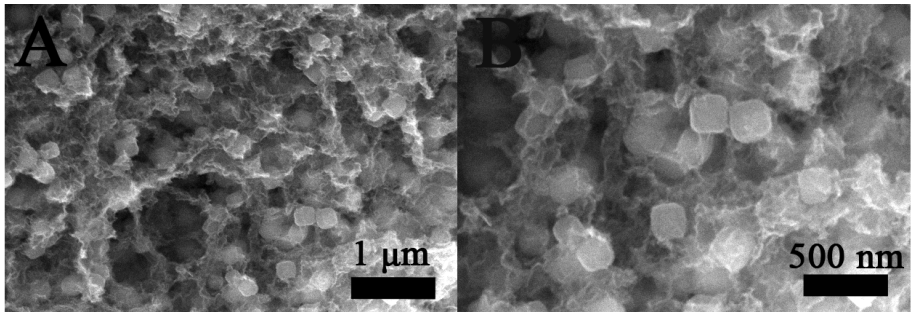

Figure S9 FESEM imges of PBSGH after cycling for 9 times.