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Table S1	BET surface a	area for CNSs	s and (GCNSs	with	various	sizes
and heat-ti	reatment temp	peratures cited	l from	n Ref. 22	2		

Sample	BET surface area / $m^2 g^{-1}$			
CNSs 700 nm, before heat treatment	4.1			
GCNSs 700 nm, 2600 °C	3.0			
GCNSs 700 nm, 2900 °C	6.9			
GCNSs 500 nm, 2600 °C	3.5			
GCNSs 500 nm, 2900 °C	3.2			
GCNSs 1000 nm, 2600 °C	1.9			
GCNSs 1000 nm, 2900 °C	3.0			



Figure S1. Schematic diagram of a three-electrode cell for *in situ* Raman spectroscopy.



Figure S2. SEM images for (a) CNSs (700 nm, before heat treatment), (b) GCNSs (700 nm, 2600 °C), (c) GCNSs (1000 nm, 2900 °C), and (d) NG-7.



Figure S3. Cyclic voltammograms for NG-7 in 1 mol dm⁻³ LiClO₄/EC+DEC (1:1 by vol) at a scan rate of 0.1 mV s⁻¹.



Figure S4. Variations in coulombic efficiency for GCNSs and NG-7 until the 110th cycle.