

## Supplementary information

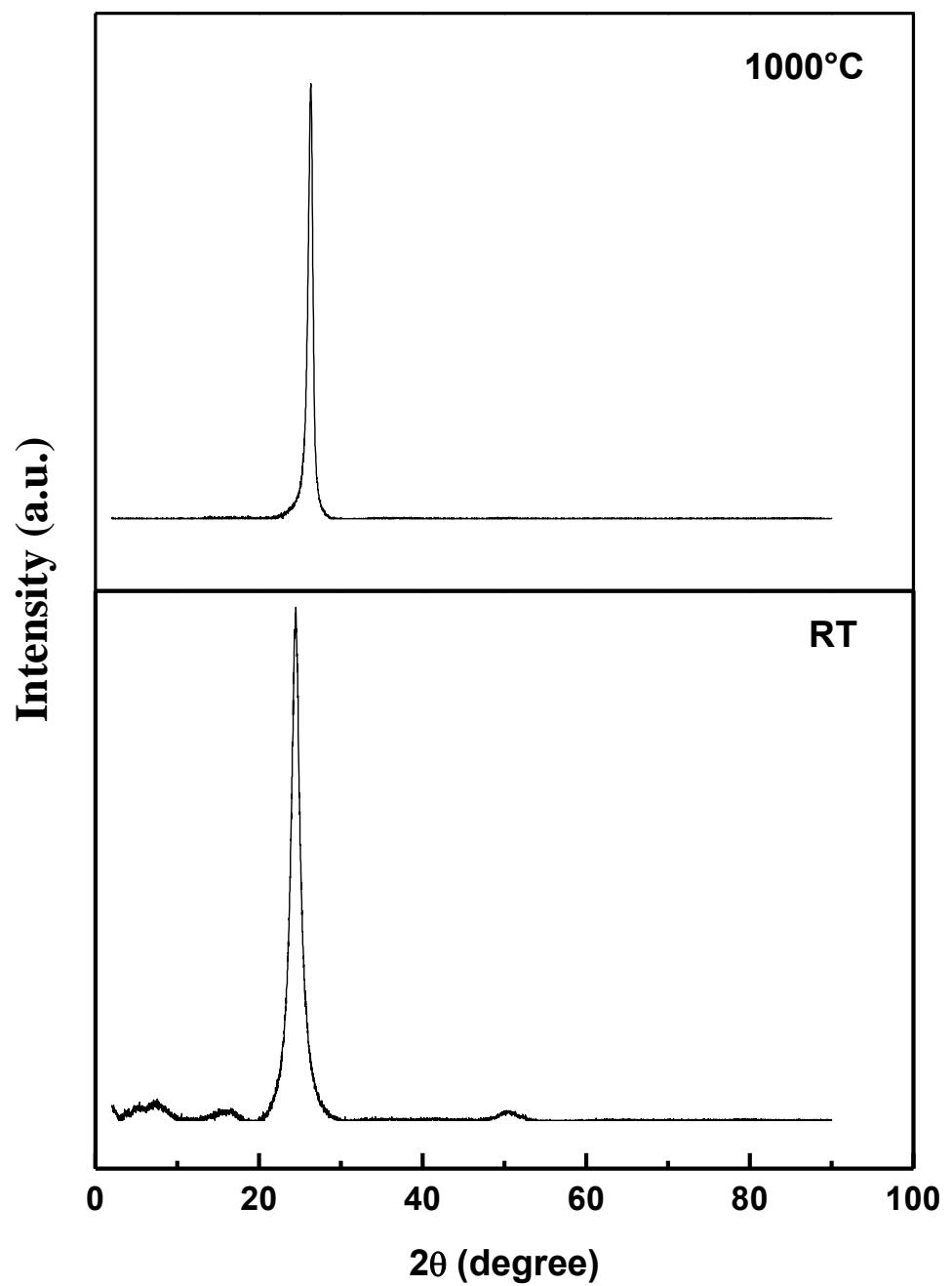
### **Post-heating effects on the physical and electrochemical capacitive properties of reduced graphene oxide paper**

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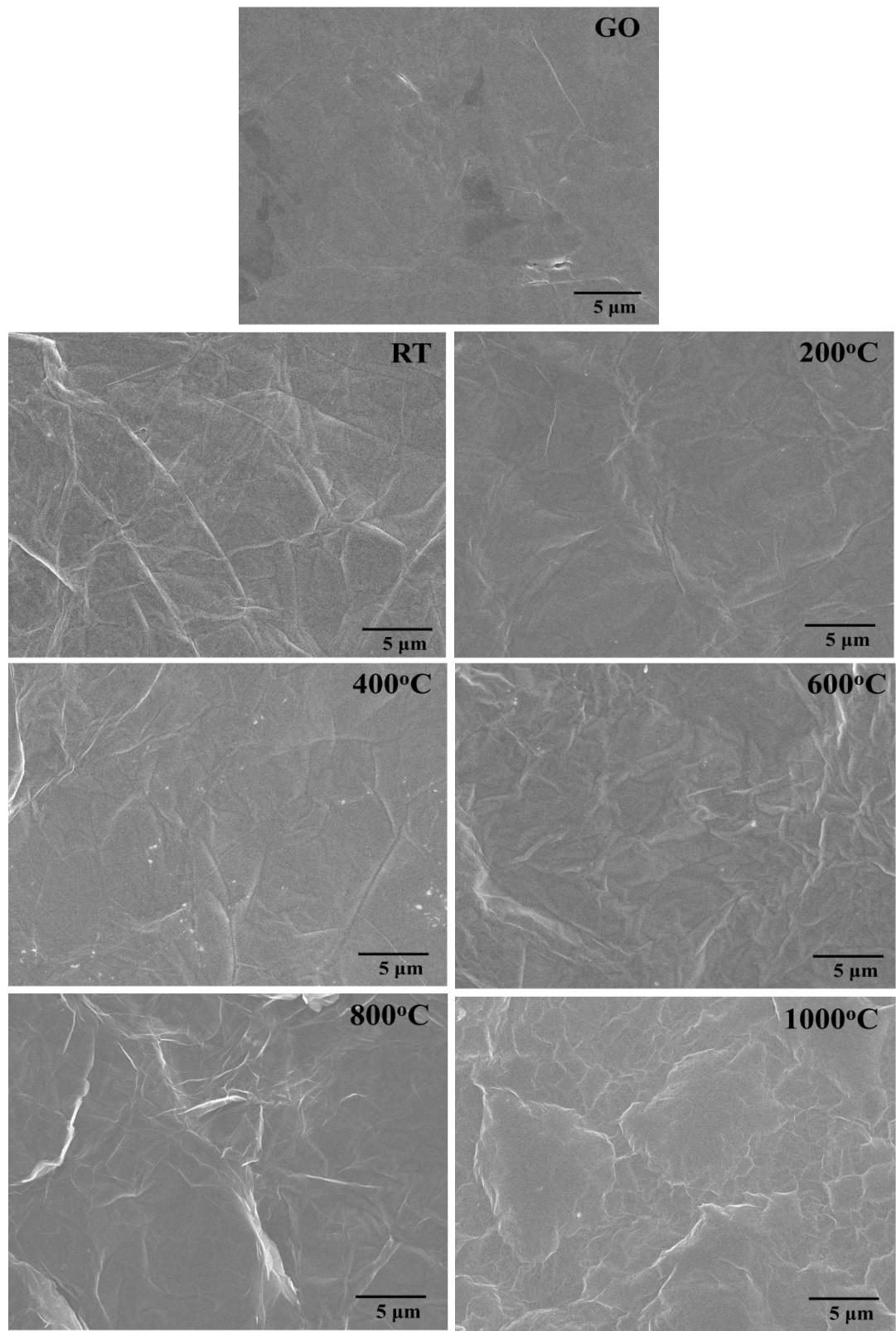
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**Table S1**  $I_D/I_G$  ratio of rGO papers annealed at different temperatures.

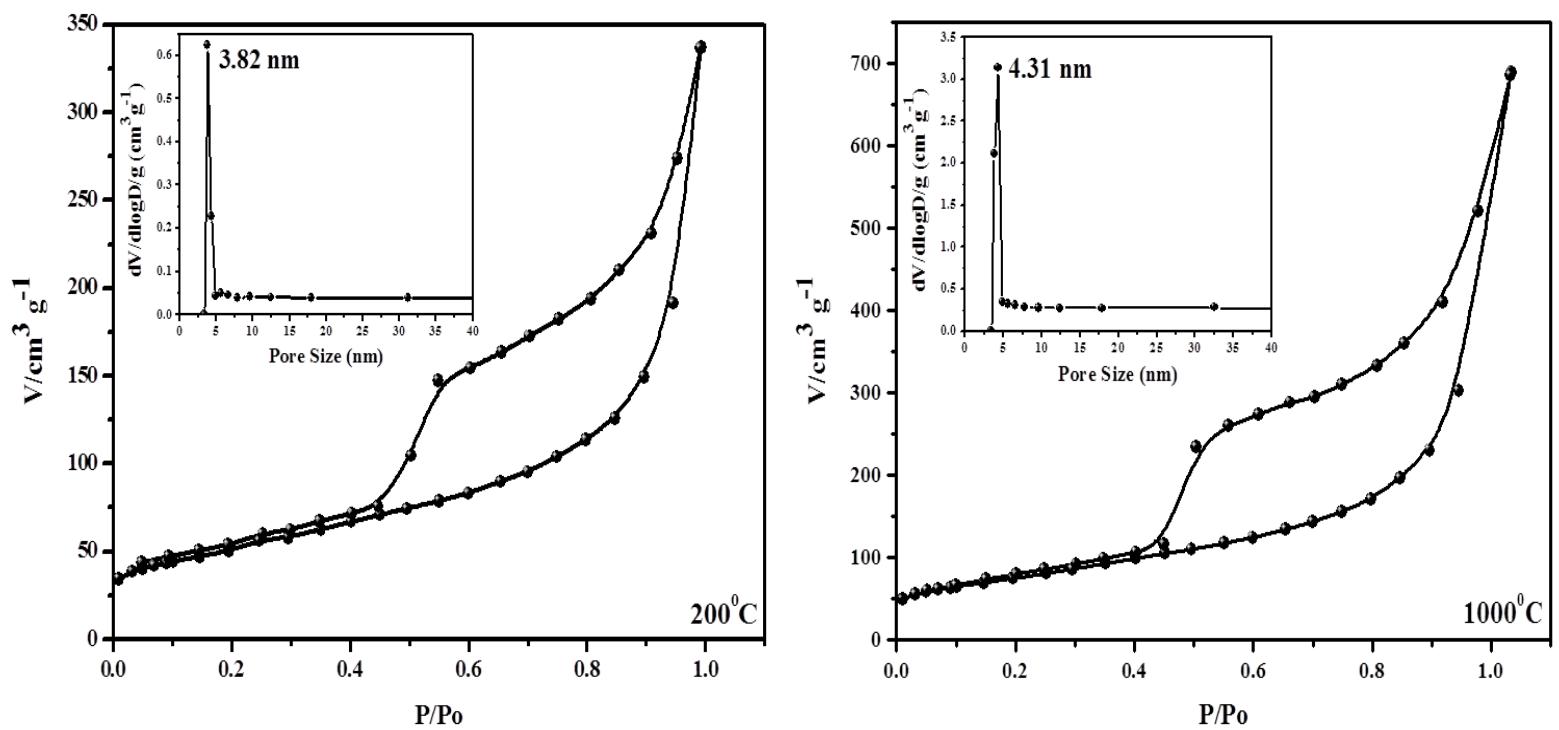
Annealing temperature	$I_D/I_G$
<b>RT</b>	<b>1.07</b>
<b>200°C</b>	<b>1.095</b>
<b>400°C</b>	<b>1.117</b>
<b>600°C</b>	<b>1.121</b>
<b>800°C</b>	<b>1.193</b>
<b>1000°C</b>	<b>1.200</b>



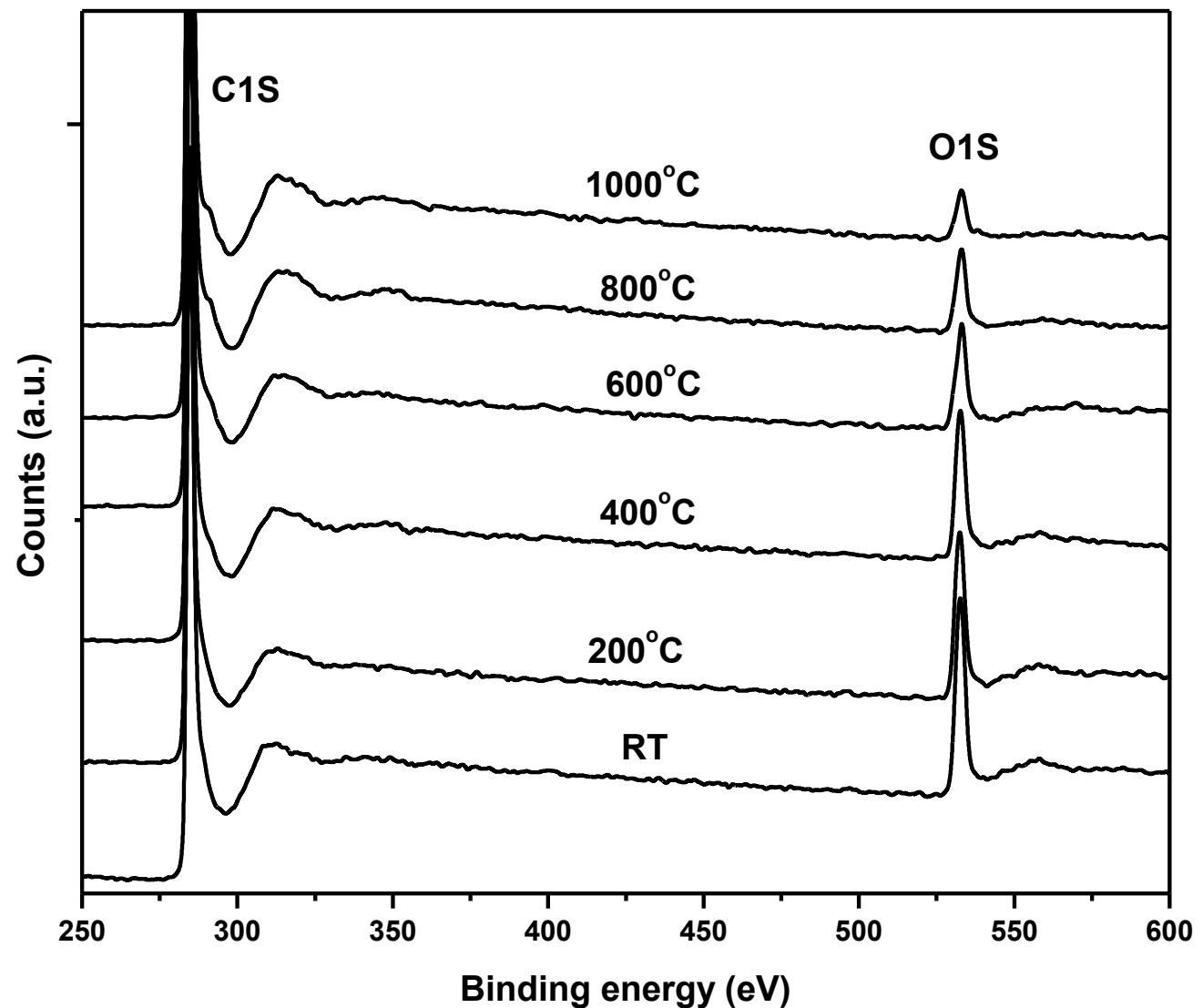
**Fig. S1** XRD patterns of RT and 1000 °C annealed rGO papers.



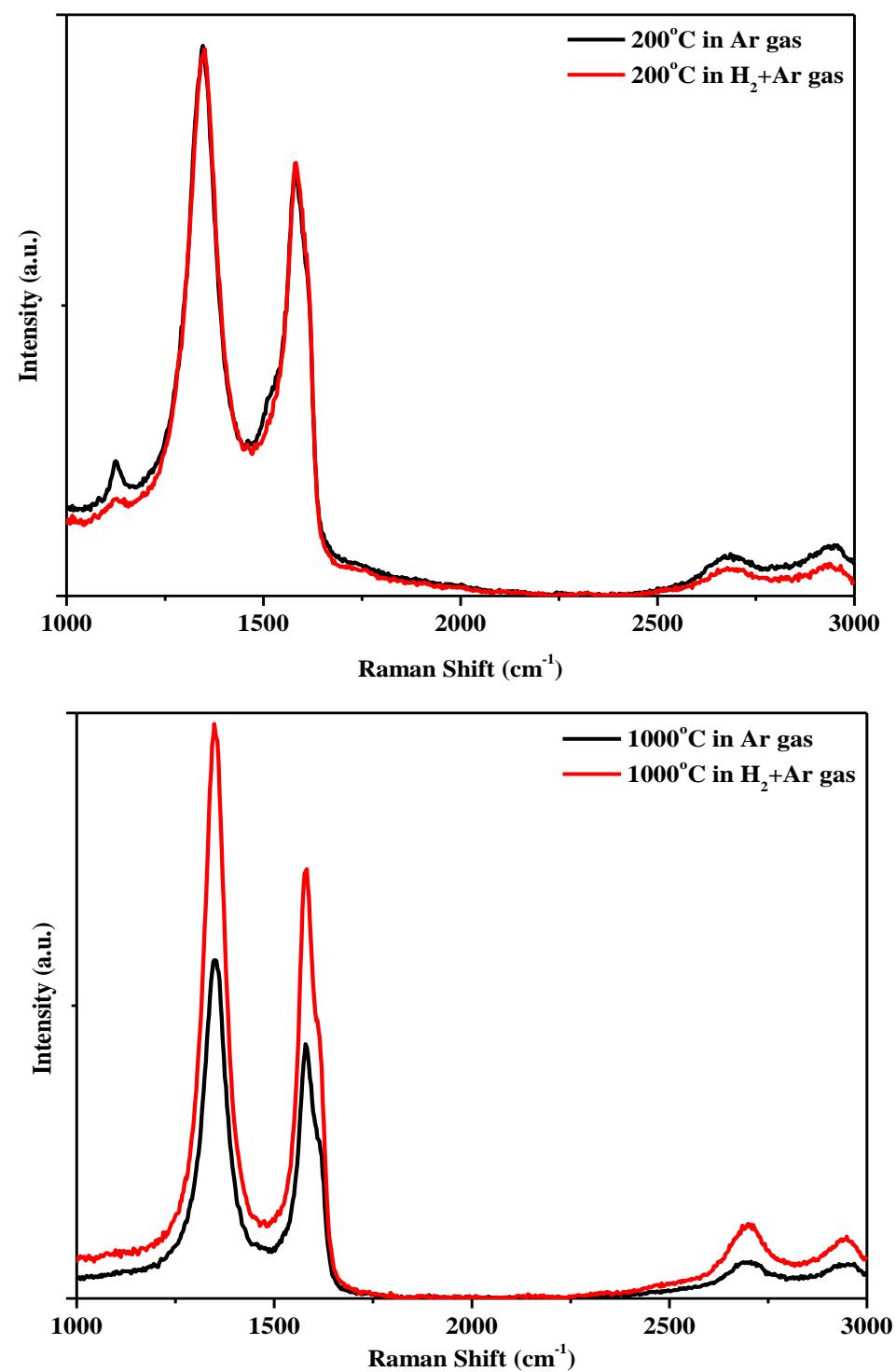
**Fig. S2** Surface morphology of GO and rGO papers annealed at different temperatures.



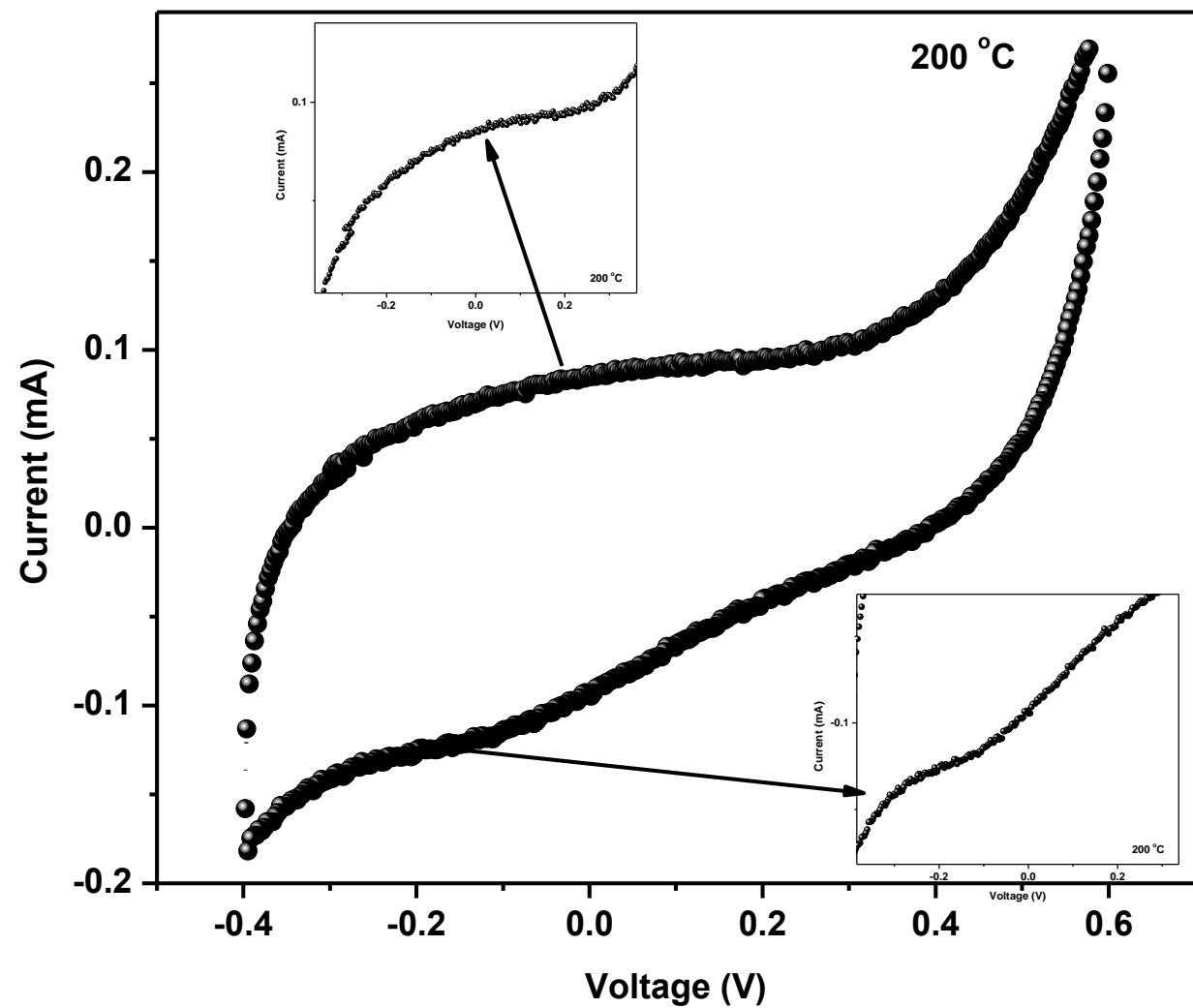
**Fig. S3** Nitrogen adsorption/desorption isotherm of rGO paper annealed at  $200^{\circ}\text{C}$  and  $1000^{\circ}\text{C}$  and pore size distribution in inset, further demonstrate the porous structure with high surface area.



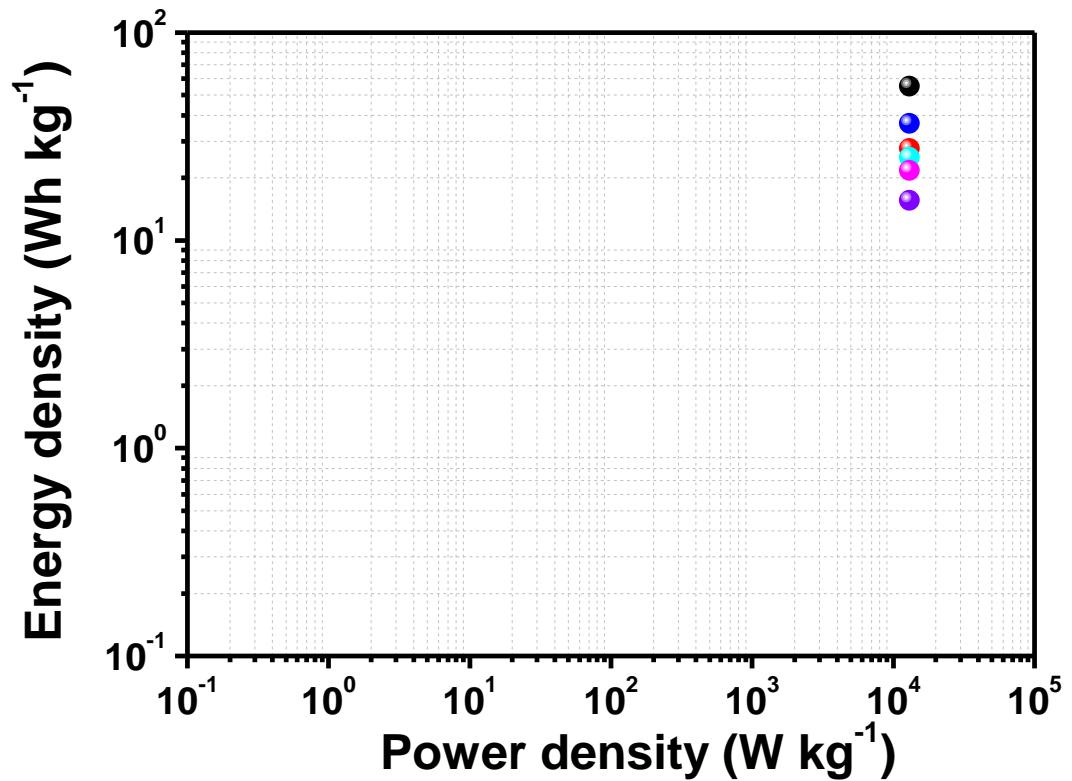
**Fig. S4** XPS scans for the different temperature annealed rGO papers.



**Fig. S5** Raman Spectra of rGO paper annealed at 200°C and 1000°C in argon and argon + hydrogen gas.



**Fig. S6** Cyclic voltammetric (CV) behavior of rGO paper annealed at 200 °C in 1M H<sub>2</sub>SO<sub>4</sub>.



**Fig. S7** Ragone plots of the samples annealed at different temperature.