

## Electronic Supplementary Information

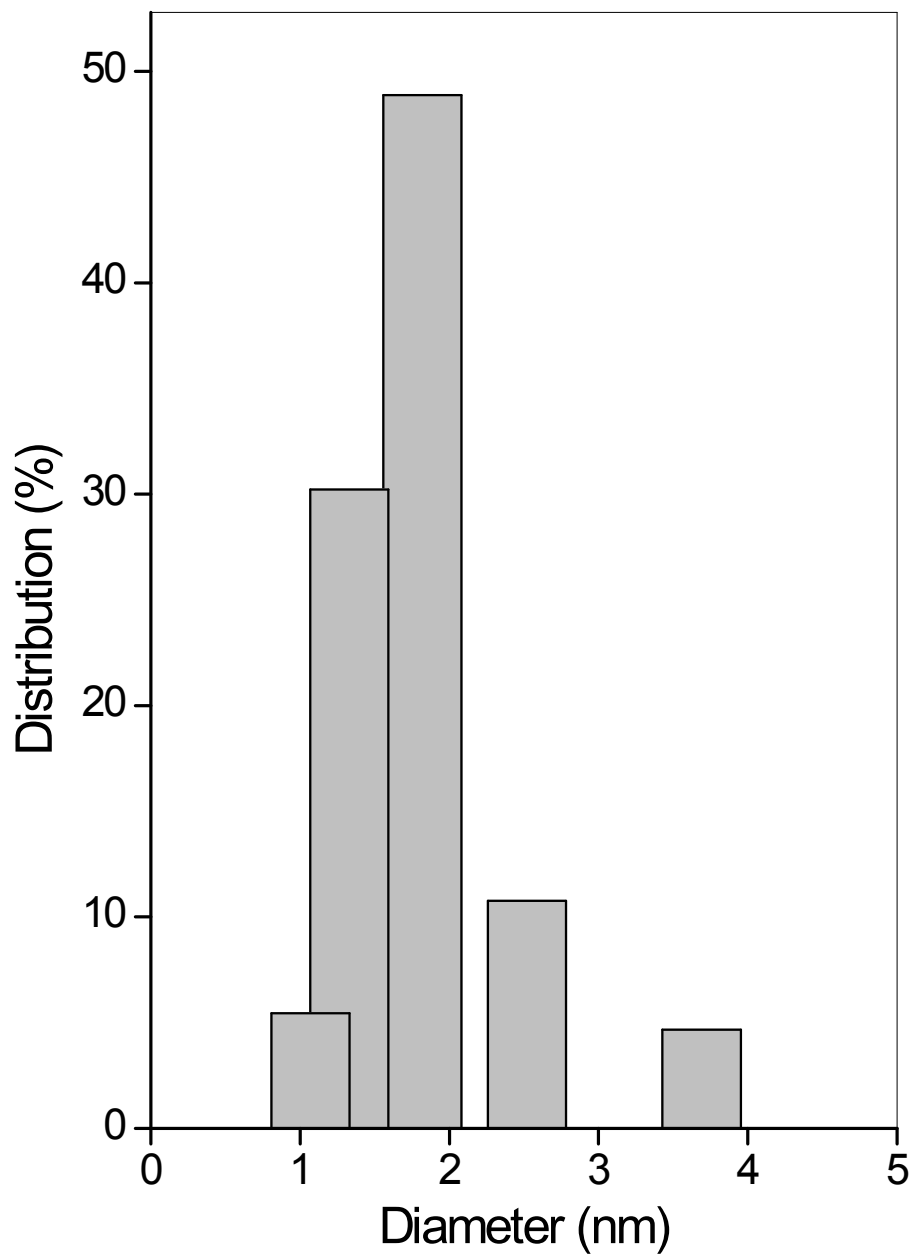
### **Ruthenium oxide-based nanocomposites with high specific surface area and improved capacitance as a supercapacitor**

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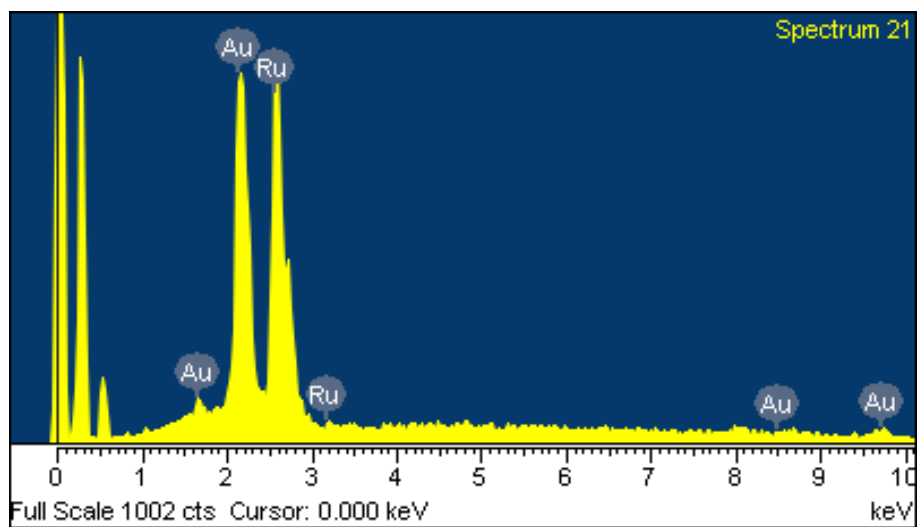
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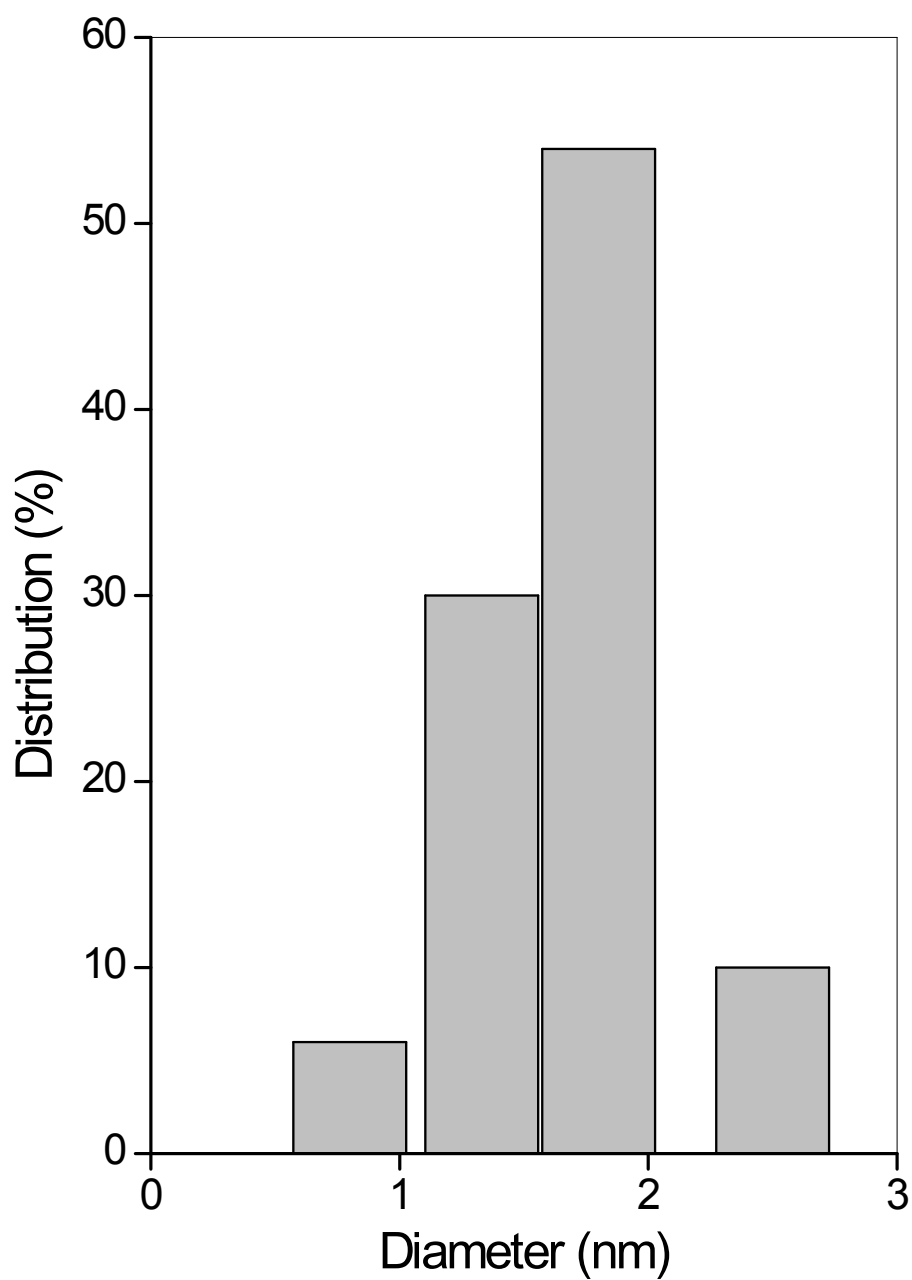
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**Fig. S1.** Histogram of RuO<sub>2</sub>/C nanocomposites derived from a solvothermal approach:  $\bar{d} = 1.80$  nm,  $\sigma = 0.33$  nm,  $\bar{\sigma} = 16.5\%$ .



**Fig. S2.** A typical EDX image of the precipitates obtained from the mixture of aqueous  $\text{RuCl}_3$  and  $\text{HAuCl}_4$  solution with Ru/Au molar ratio of 3/1.



**Fig. S3.** Histogram of RuO<sub>2</sub>-Au/C nanocomposites derived from a mutual oxidation-reduction approach:  $\bar{d} = 1.62$  nm,  $\sigma = 0.24$  nm,  $\bar{\sigma} = 14.8\%$ .