Supporting information

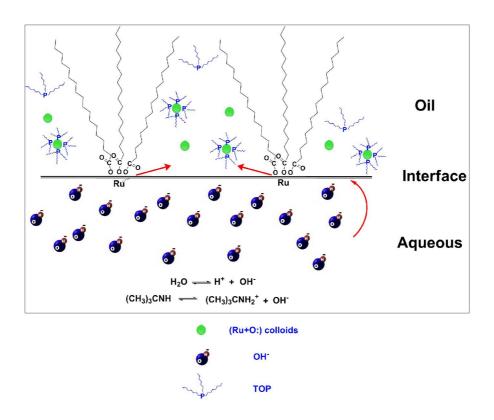


Figure S1. A probable reaction mechanism in the two phase route.

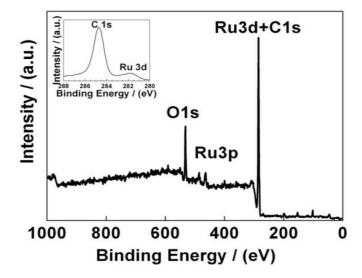


Figure S2. Full XPS spectrum (up) and local magnification for Ru 3d and C 1s peaks of sample prepared at 180 °C for 6 h.

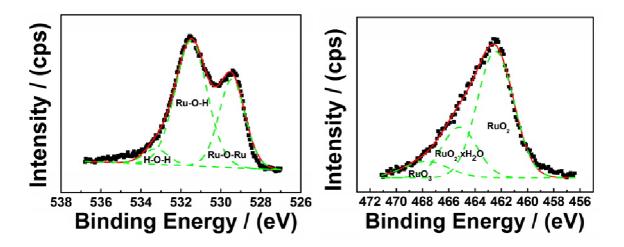


Figure S3. XPS spectrum of O 1s (left) and Ru $3p_{3/2}$ (right) for as-prepared RuO₂·xH₂O sample. The scatter, dashed and solid lines are the experiment, fitting and resultant spectra, respectively.

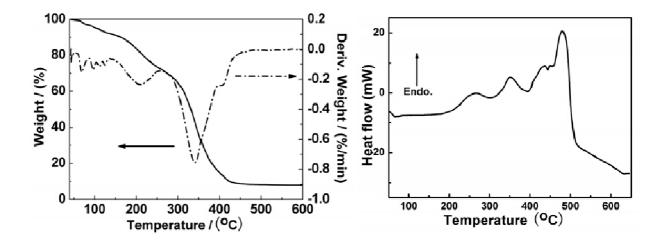


Figure S4. TGA (left) curve (solid), the differential plot (dash dot) and DTA (right) curve of as-prepared RuO₂·xH₂O samples.

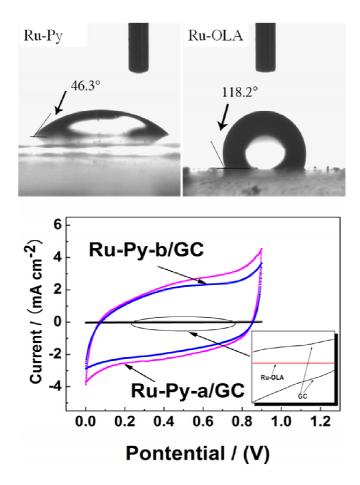


Figure S5. Water contact angle of Ru-OLA and Ru-Py samples, and cyclic voltammograms at a scan rate of 50mVs⁻¹ of bare GC, Ru-OLA, Ru-Py-a, and Ru-Py-b modified GC, respectively. The shadowed square inset is local magnification of the elliptical zones.