

Supporting Information

***In situ* study of oxidation states of platinum nanoparticles on a polymer electrolyte fuel cell electrode by near ambient pressure hard X-ray photoelectron spectroscopy**

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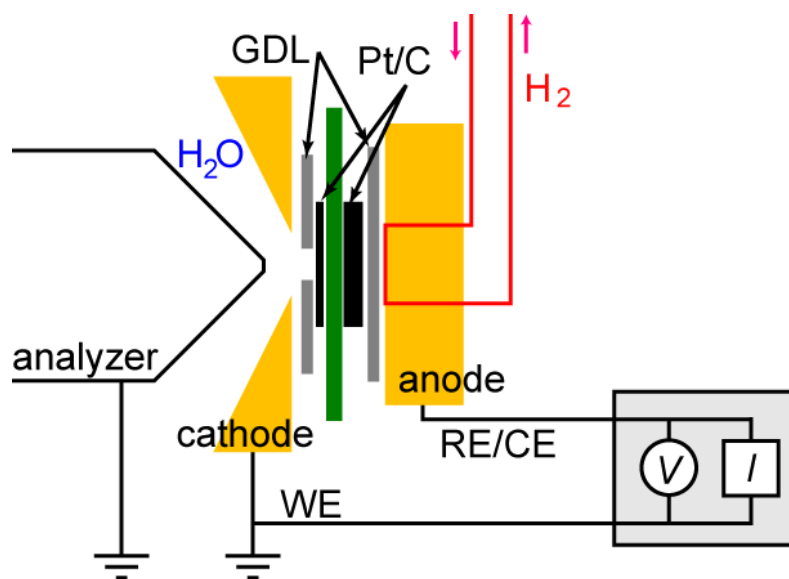


Figure S1: A potentiostatic system of the fuel cell for *in situ* NAP-HAXPES measurements at SPring-8 BL36XU.

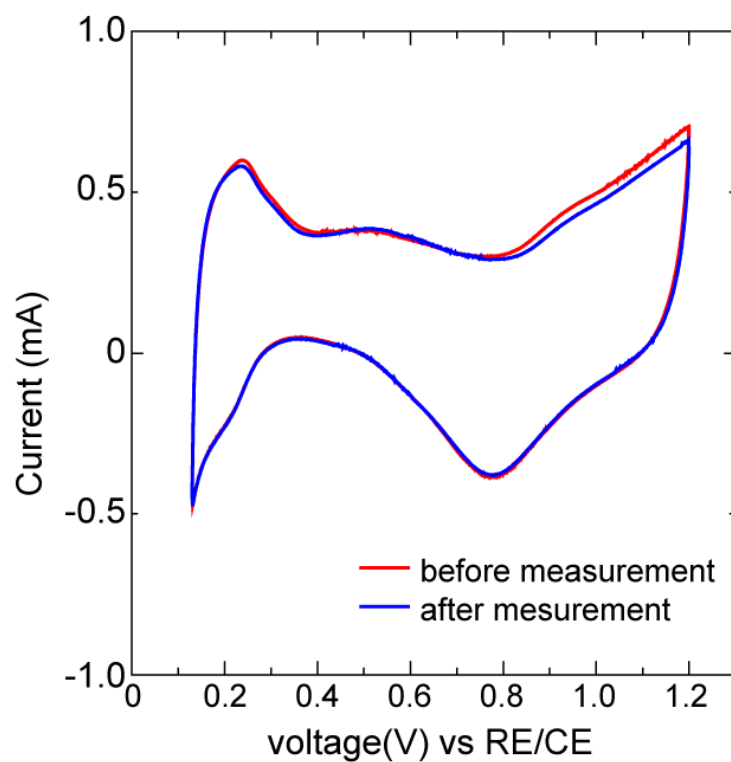


Figure S2: Cyclic voltammograms before and after the *in situ* NAP-HAXPES measurement for 4 hours under water vapor pressure of 4,000 Pa. The scan rate of the CV curves was 20 mV/s. TEC10E50E was used as the catalyst in the electrode.