

Supplemental Document for:

## Electrocatalytic Activity of Size-Selected Sub-Nano Pt Clusters Toward the Hydrogen Evolution Reaction

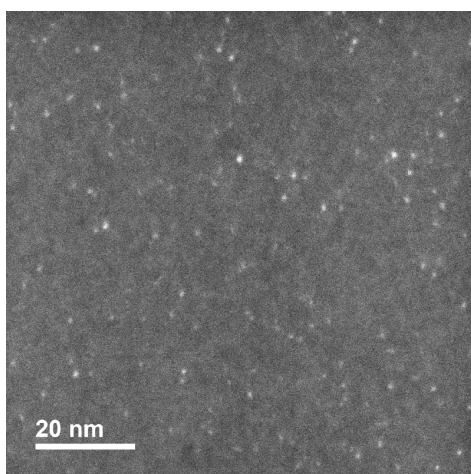
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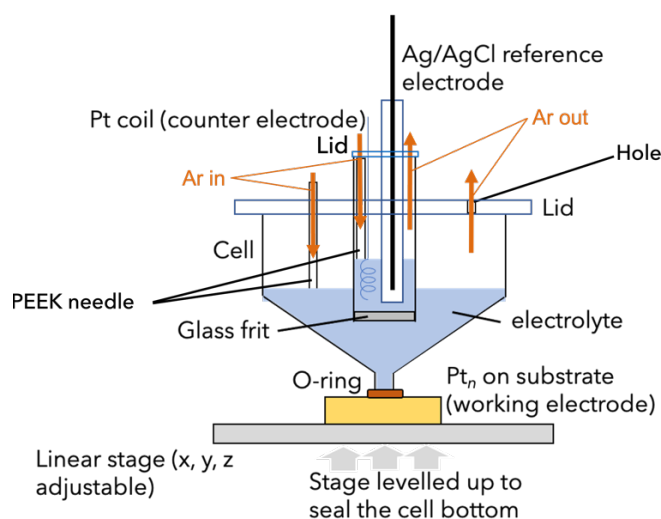
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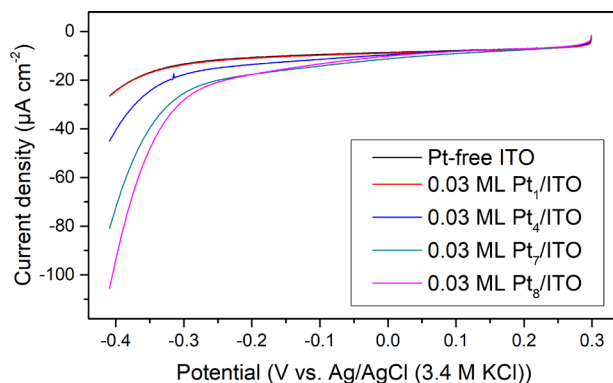
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**Fig. S1.** S/TEM HAADF image of Pt<sub>10</sub> clusters deposited on an ultra-thin carbon grid, showing every cluster is stable without agglomeration.



**Fig. S2.** Experimental setup for studying the electrocatalytic activity of sub-nano Pt clusters (not to scale).



**Fig. S3.** Cyclic voltammograms with Pt<sub>n</sub> ( $n = 1, 4, 7, 8$ ) working electrodes (support: indium tin oxide) in a 0.1 M HClO<sub>4</sub> electrolyte solution, showing the size-dependent activity for the hydrogen evolution reaction. Only anodic currents are plotted.