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Supplementary Materials: Facile Strategy for Mass Production of Pt Catalysts for Polymer Electrolyte Membrane Fuel Cells Using Low-Energy Electron Beam

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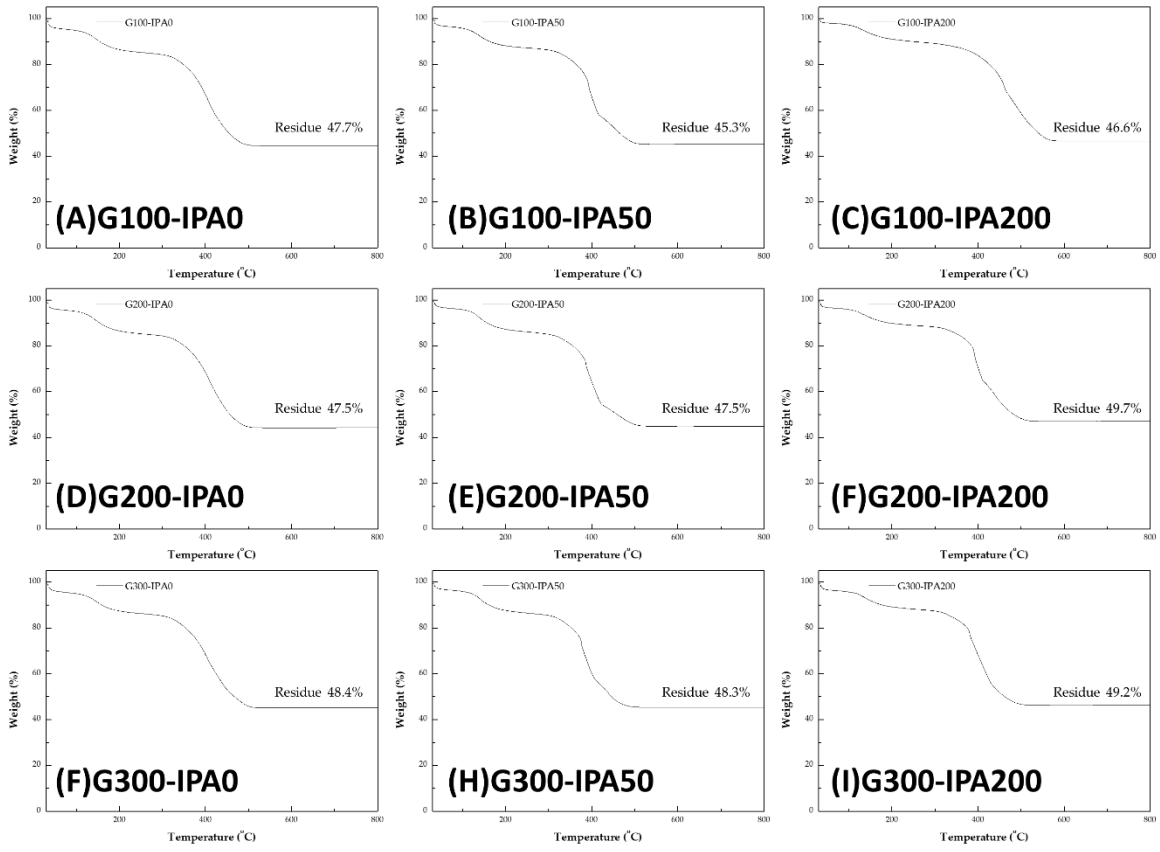

Figure S1. TGA data to estimate the Pt content (wt %) of the prepared Pt/C catalysts.

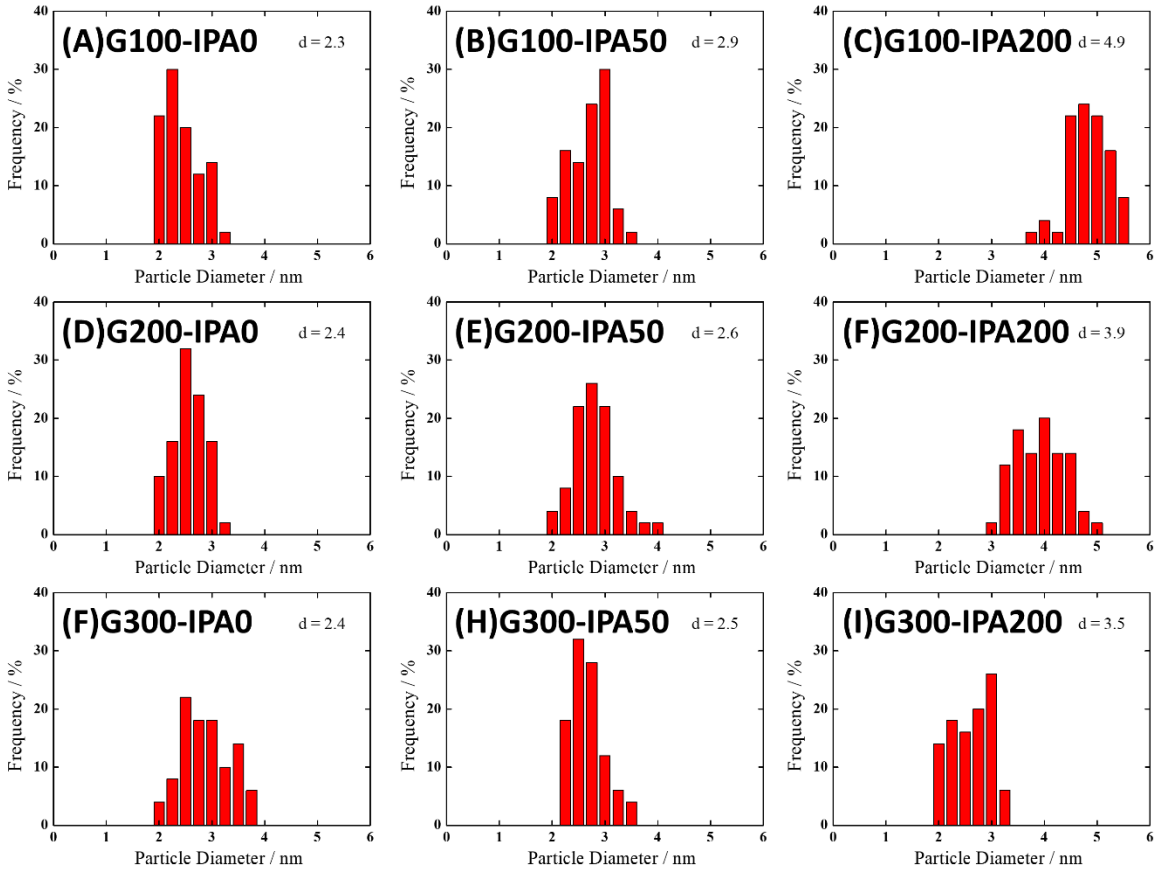

Figure S2. Particle size distributions and average particle sizes of Pt/C catalysts according to the reaction conditions.

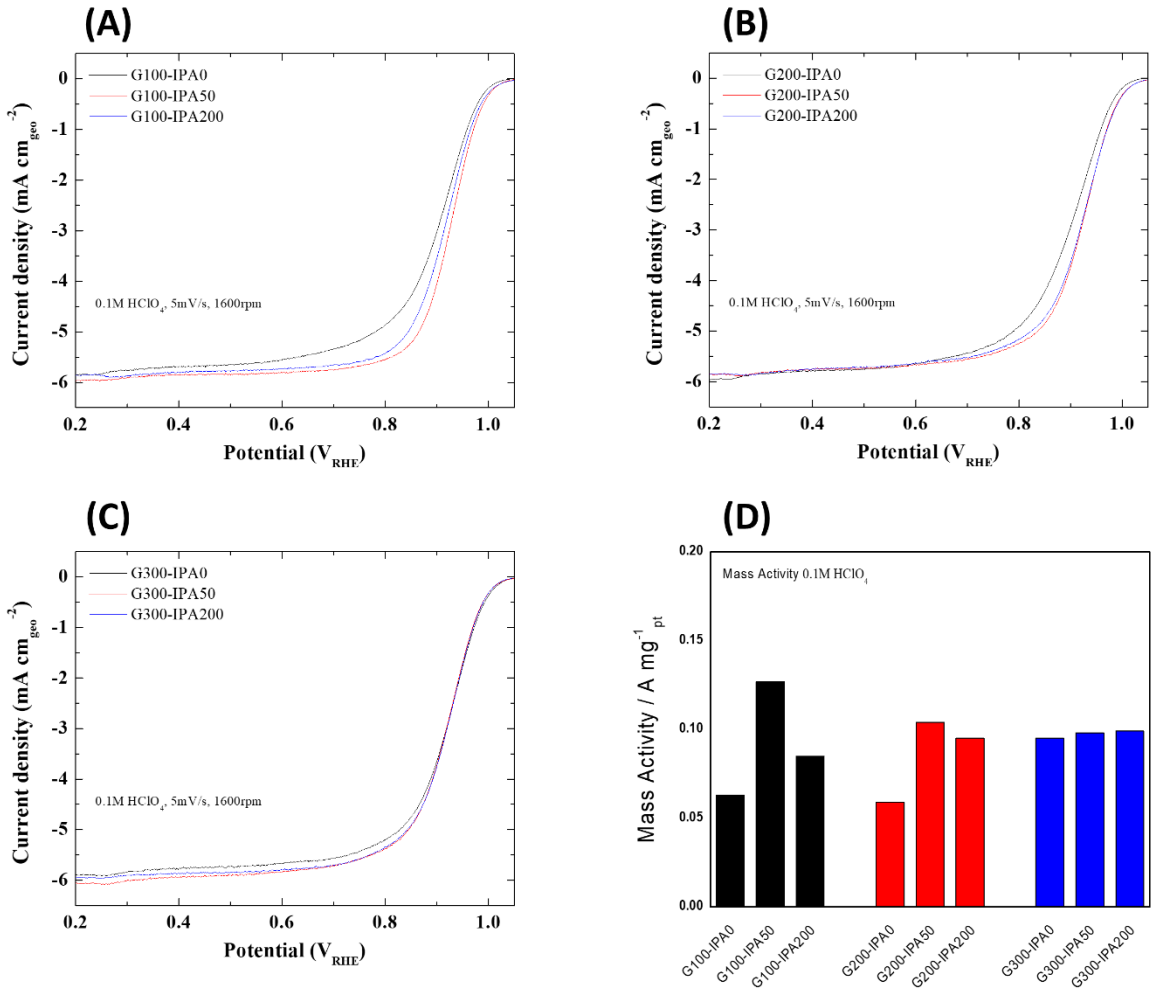

Figure S3. ORR polarization curves of Pt/C catalysts synthesized using different IPA contents (0, 50, and 200 mL) in fixed amounts of glycerol of (A) G100, (B) G200, and (C) G300. (D) Mass activities of Pt/C catalysts according to the reaction conditions.

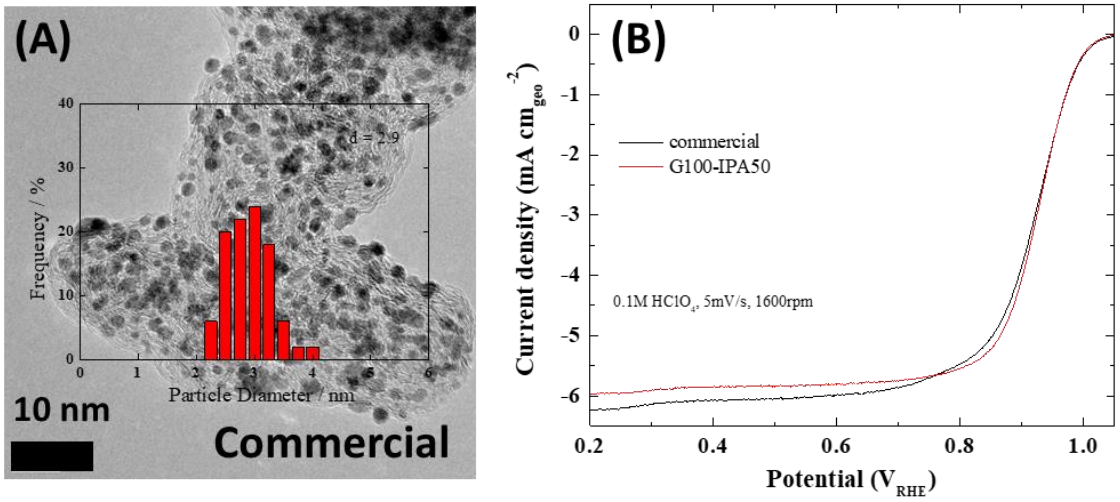

Figure S4. (A) TEM image and particle size distribution of commercial Pt/C and (B) comparison of ORR polarization curves of commercial Pt/C and G100-IPA50 sample.

Table S1. The weight and atomic ratios of Pt to C for the prepared catalysts (calculated from TGA results).

Samples	Weight Ratio	Atomic Ratio
G100-IPA0	0.91	0.06
G100-IPA50	0.83	0.05
G100-IPA200	0.87	0.05
G200-IPA0	0.90	0.06
G200-IPA50	0.90	0.06
G200-IPA200	0.99	0.06
G300-IPA0	0.94	0.06
G300-IPA50	0.93	0.06
G300-IPA200	0.97	0.06