

Electronic Supplementary Information

One-pot synthesis of three-dimensional graphene aerogel supported Pt catalyst for methanol electrooxidation

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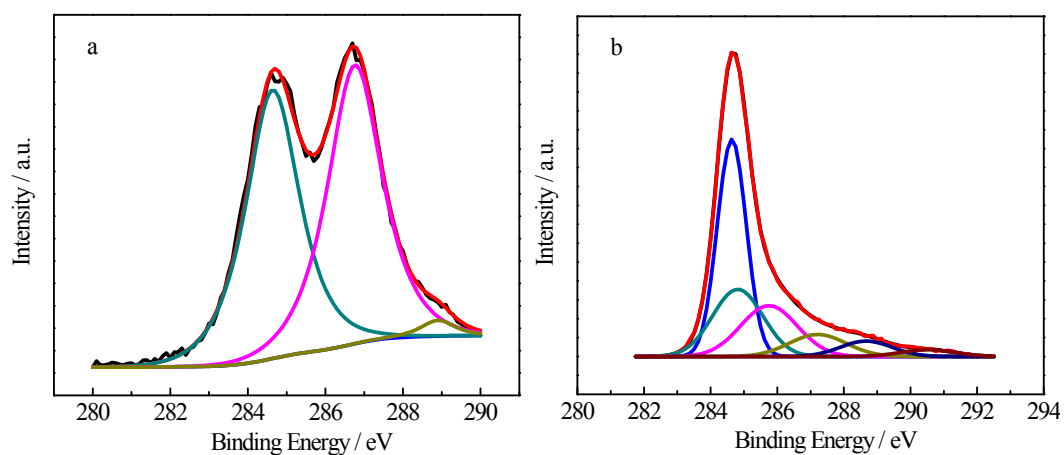


Figure S1 XPS spectra of the C1s in GO (a) and Pt/GA catalyst (b).

Table S1. Results of the fits of the C1s spectra, values given in % of the total intensity.

Sample	C-C 284.5 eV	C-O 286.7 eV	C=O 288.8 eV	Anti π bond 291.0 eV
GO	47.92	50.33	1.75	--
Pt/GA	64.67	19.23	13.67	2.43

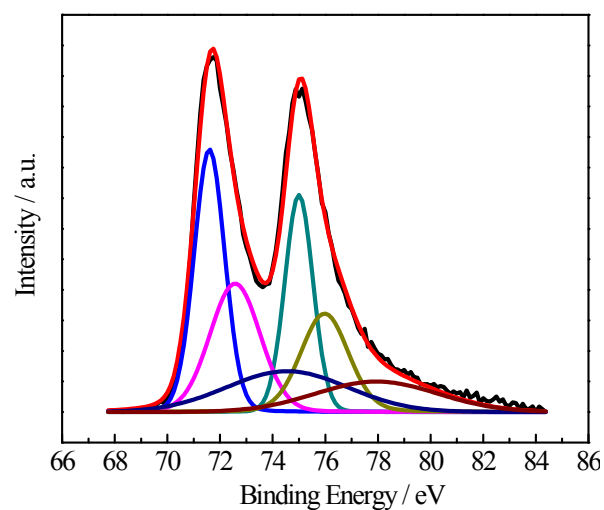


Figure S2 XPS spectra of the Pt 4f in Pt/GA catalyst.

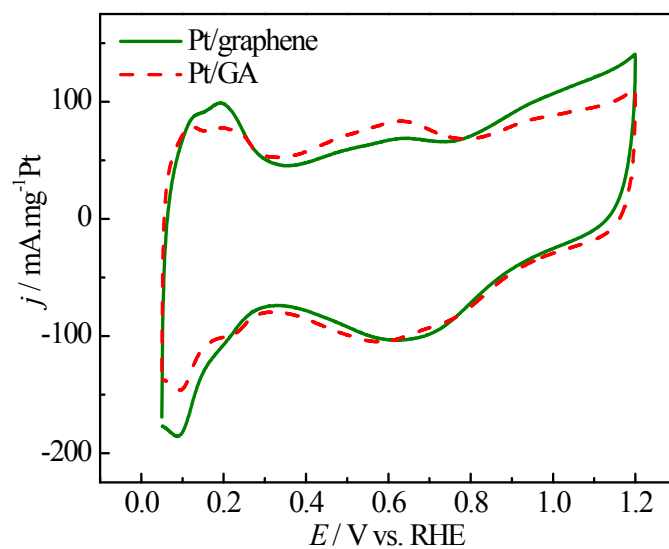


Figure S3 CV of Pt/graphene and Pt/GA catalysts in $0.5 \text{ mol L}^{-1} \text{ H}_2\text{SO}_4$. Scanning rate: 50 mV s^{-1} ; test temperature: $25 \text{ }^\circ\text{C}$.

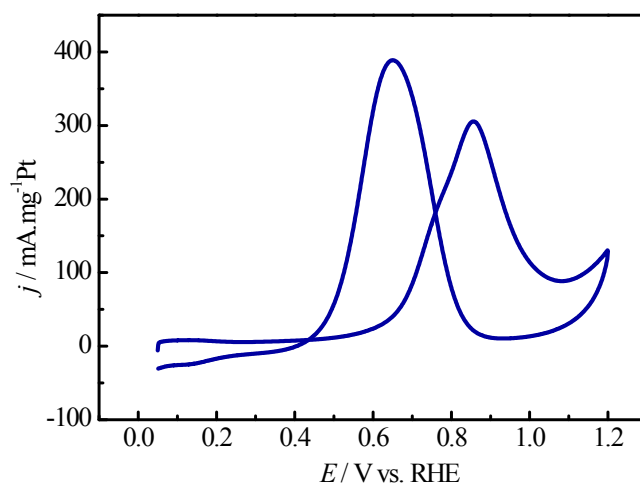


Figure S4 CV of commercial Pt/C in a solution of $0.5 \text{ mol L}^{-1} \text{ H}_2\text{SO}_4$ containing $0.5 \text{ mol L}^{-1} \text{ CH}_3\text{OH}$ (b). Scanning rate: 50 mV s^{-1} ; test temperature: $25 \text{ }^\circ\text{C}$.

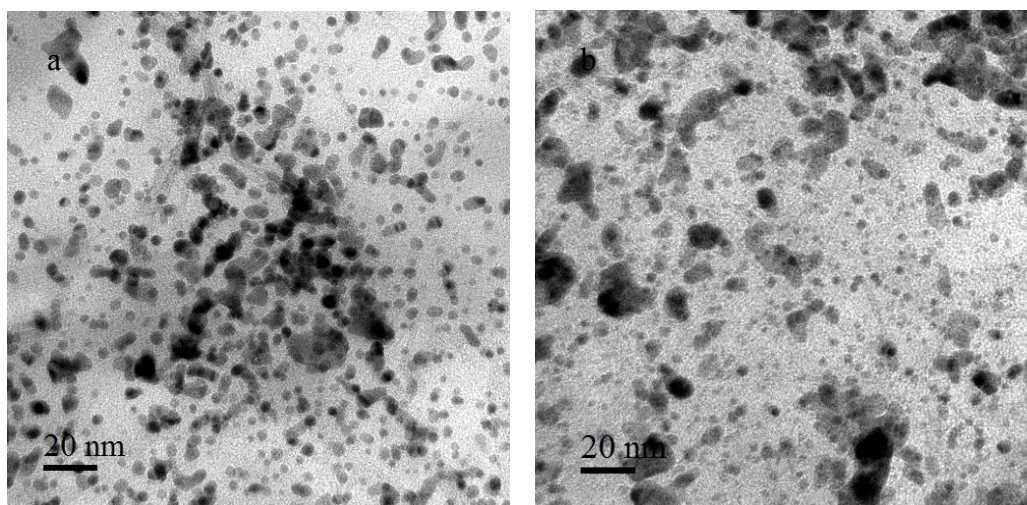


Figure S5 TEM images of the Pt/graphene (a) and Pt/GA (b) after stability test.

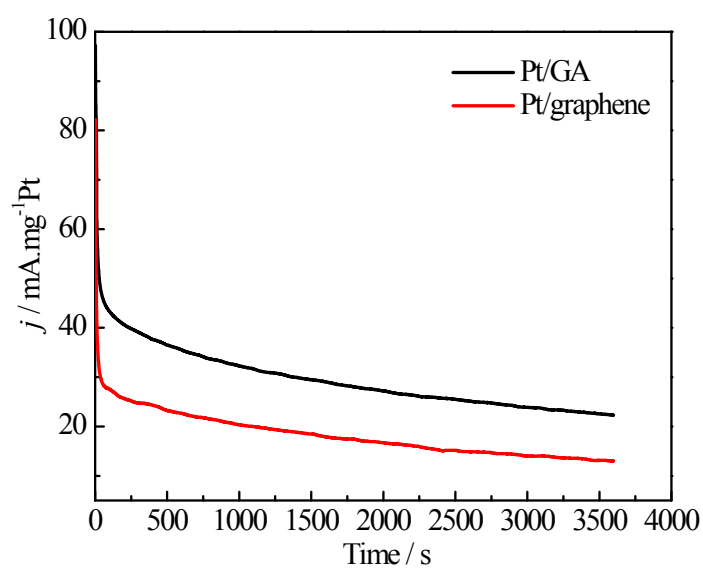


Figure S6 Chronoamperometric curves for Pt/graphene and Pt/GA catalyst in a solution of $0.5 \text{ mol L}^{-1} \text{ H}_2\text{SO}_4$ containing $0.5 \text{ mol L}^{-1} \text{ CH}_3\text{OH}$ at a fixed potential of 0.6 V vs. RHE .