Supporting Information

**Au@PdAg core-shell nanotubules as advanced electrocatalysts for methanol electrooxidation in alkaline media**

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Table 1. Summary of electrocatalytic performance of Au@PdAg-NTs and commercial Pd/C

| Electrode            | \(E_s\) (V) | \(E_p\) (V) | \(j_p\) \((\text{mA cm}^{-2}/\text{mA mg}_{\text{Pd}}^{-1})\) | \(E_a\) \((\text{kJ mol}^{-1})\) | \(J_{DC1000s}\) \((\text{mA cm}^{-2})\) | Metal loading/\(mg_{\text{Pd}}\) | ECSA/cm\(^2\)/mg\(^{-1}\) |
|----------------------|------------|------------|-------------------------------------------------|---------------------------------|---------------------------------|-----------------------------|-----------------------------|
| Pd/C/GC              | -0.30      | -0.09      | 1.59/735                                        | 41.5                            | 0.075                           | 0.002                       | 525.5                       |
| Au@PdAg-NTs/GC       | -0.40      | -0.07      | 3.50/1554                                       | 28.7                            | 0.275                           | 0.004                       | 443.8                       |

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Fig. S1 (a) SEM and (b) TEM images of Ag nanowires.

Fig. S2 EDS spectrum of Au@PdAg-NTs on a Si substrate.

Fig. S3 (a) Ag 3d and (b) Pd 3d XPS spectra of Au@PdAg-NTs. Peaks were deconvoluted to reflect different contributions.