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## **Supporting Information**

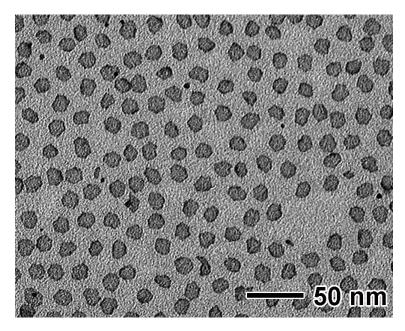
## Size-controlled synthesis of Au nanorings on Pd ultrathin nanoplates as efficient catalysts for hydrogenation

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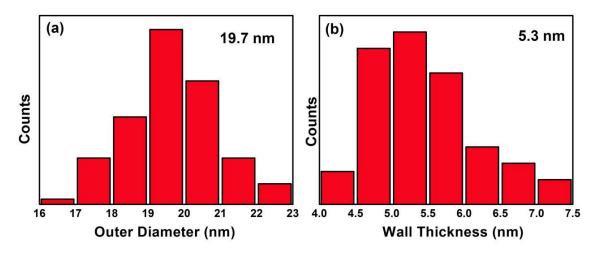
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**Figure S1.** TEM image of Pd nanoplates with average edge length of 6 nm.



**Fig. S2** (a) The outer diameter and (b) wall thickness distribution of the Pd nanoplate supported Au nanorings prepared using the standard procedure.

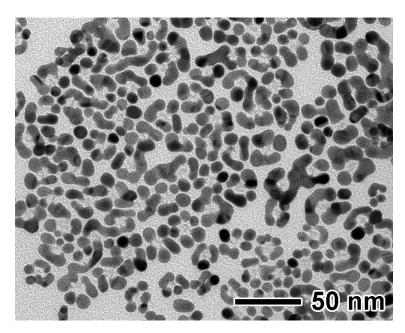
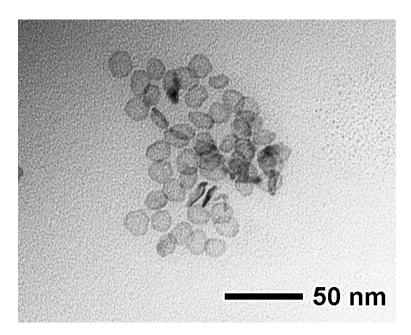
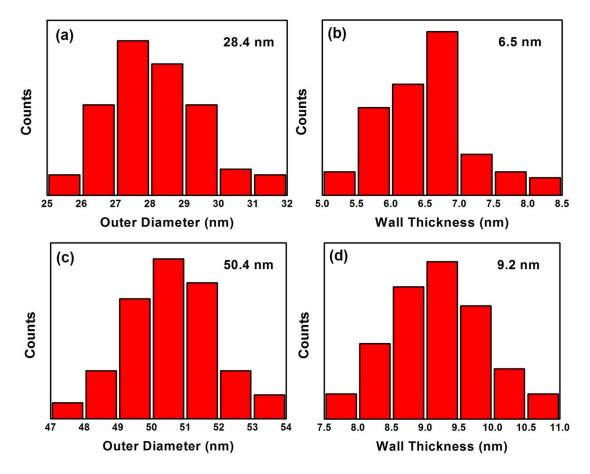


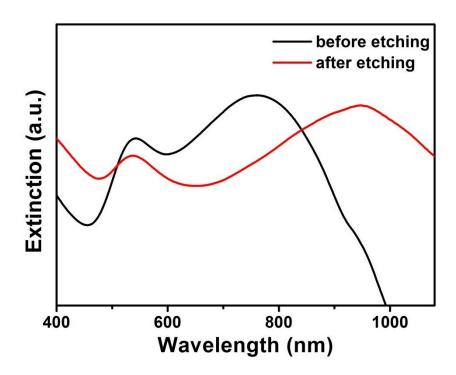
Fig. S3 TEM image of the sample prepared using the standard procedure except for the absence of  $Ag^+$  ions.



**Fig. S4** TEM image of the sample prepared using the standard procedure except for the absence of HAuCl<sub>4</sub>.



**Fig. S5** The outer diameter and wall thickness distribution of the Pd nanoplate supported Au nanorings prepared using the Pd seeds with average edge length of (a, b) 10 nm and (c, d) 18 nm.



**Fig. S6** UV-vis-NIR extinction spectra of the Pd nanoplate supported Au nanorings before and after chemical etching.

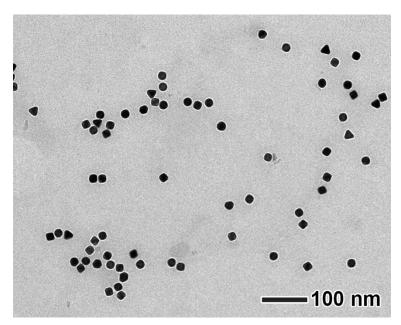


Fig. S7 TEM image of the Au nanoparticles with ca. 20 nm in size.