

# **Facile and rapid synthesis of Pd nanodendrites for electrocatalysis and surface enhanced Raman scattering application**

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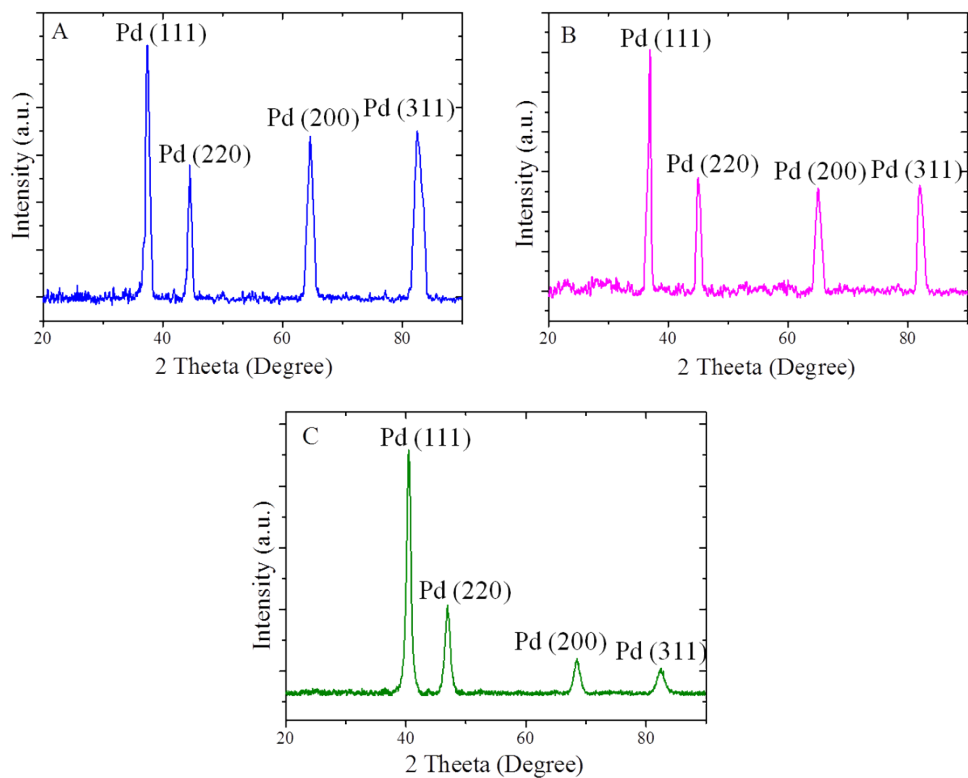
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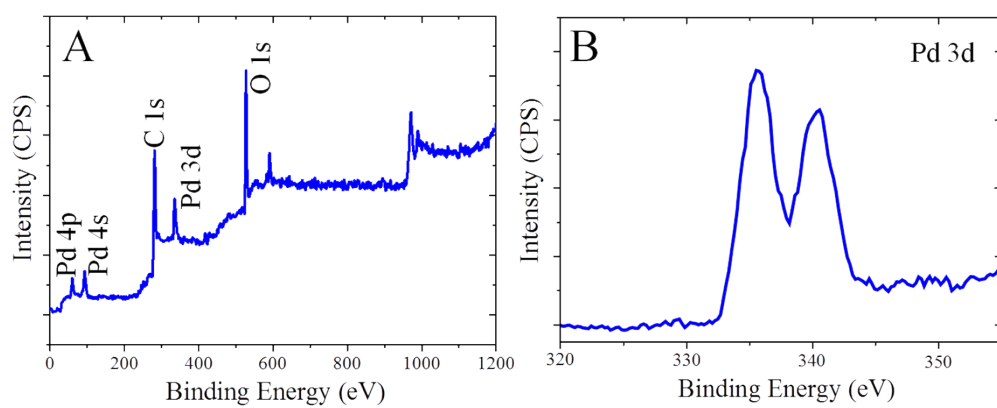
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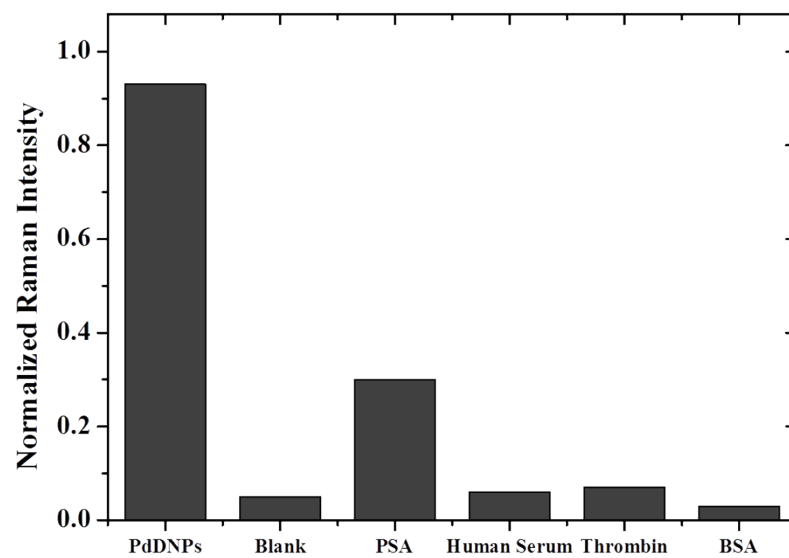
## **Supporting Information**



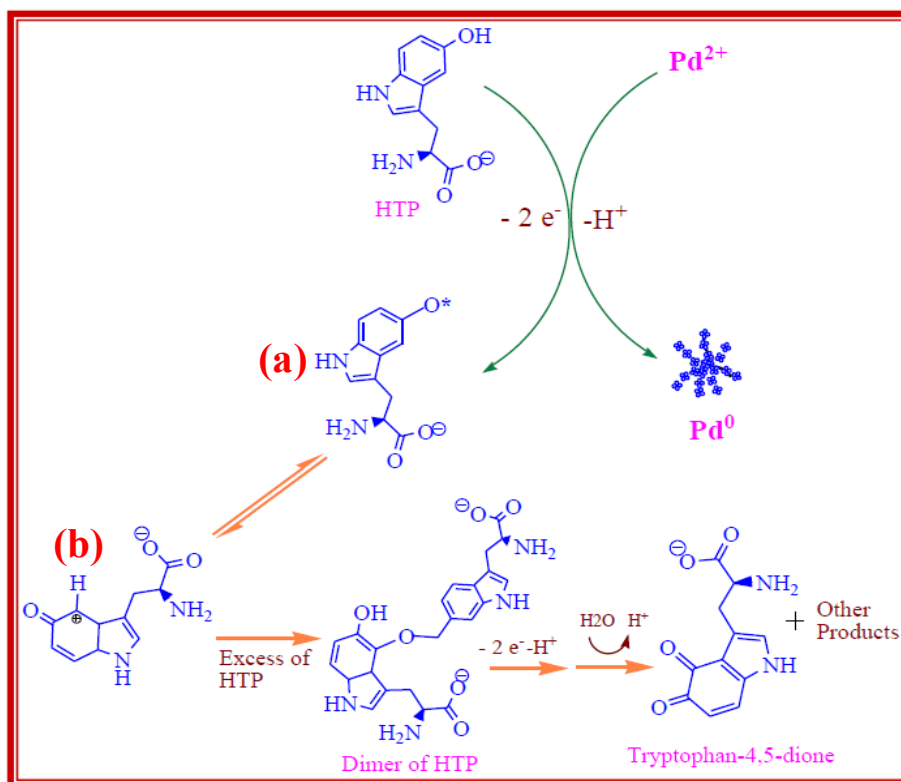
**Figure S1.** XRD pattern of as synthesized flower-like Pd dendrites nanostructures (a), big-dendrites Pd nanostructures, and small dendrite Pd nanostructures (c).



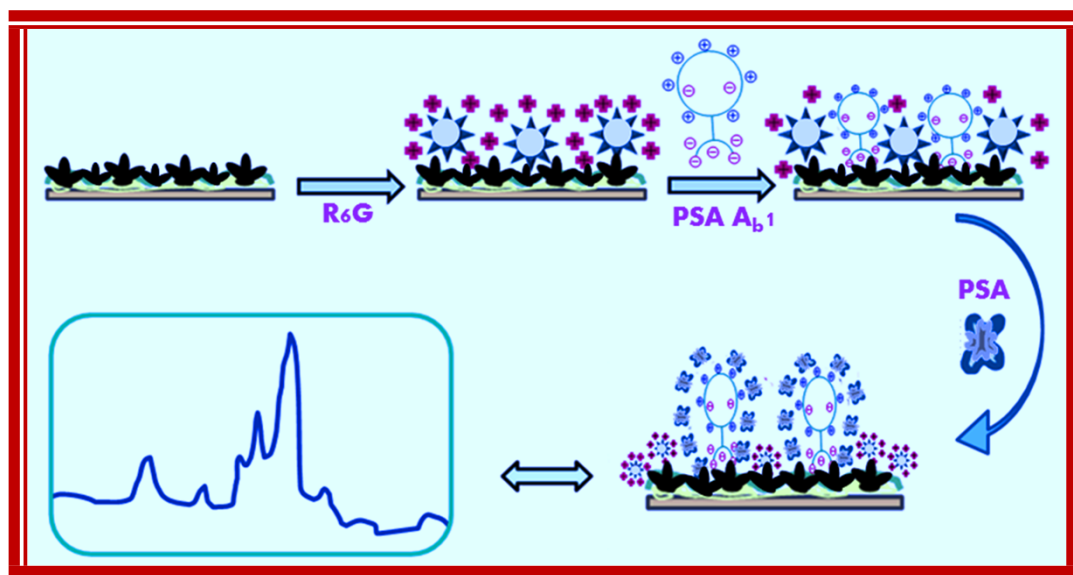
**Figure S2.** XPS of Pd survey (A) and the Pd binding energy (B) region of flower-like Pd dendrites nanoparticles.



**Figure S3.** Specificity analysis of the SERS assay under in presence of 500 ng/mL human serum, thrombin and BSA on PSA A<sub>b</sub> modified flower-like Pd dendrites nanoparticles surface.



**Scheme S1.** Mechanism for HTP induced the formation of Pd dendrites nanoparticles.



**Scheme S2.** Schematic illustration of the procedure for PSA detection according to the different amount of R6G molecules contributed to the SERS signal due to the electrostatic effects from the anchored PSA antibody on flower-like Pd dendrites nanoparticles.