Supporting Information

Point-of-care assay for drunken driving with Pd@Pt core-shell nanoparticles-ploy(vinyl alcohol) aerogel assisted by portable pressure meter

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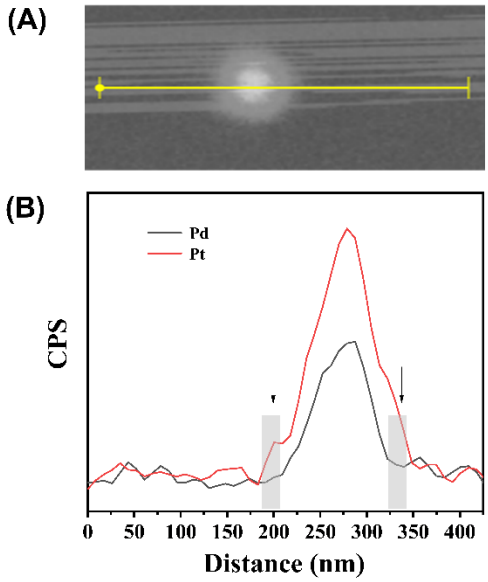

Figure S1. (A) The image of target nanoparticle and scan path. (B) EDS line scans of Pd and Pt recorded from a Pd@Pt core-shell nanoparticle. The two regions in gray indicate the ~20 nm thickness of the Pt shell.

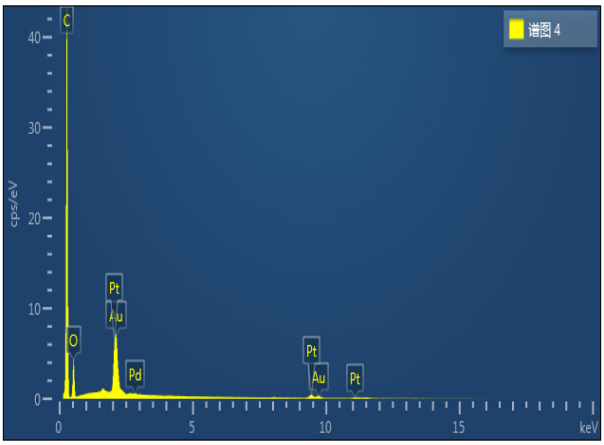

Figure S2. EDX spectroscopy analysis of 6-PAAC-30.

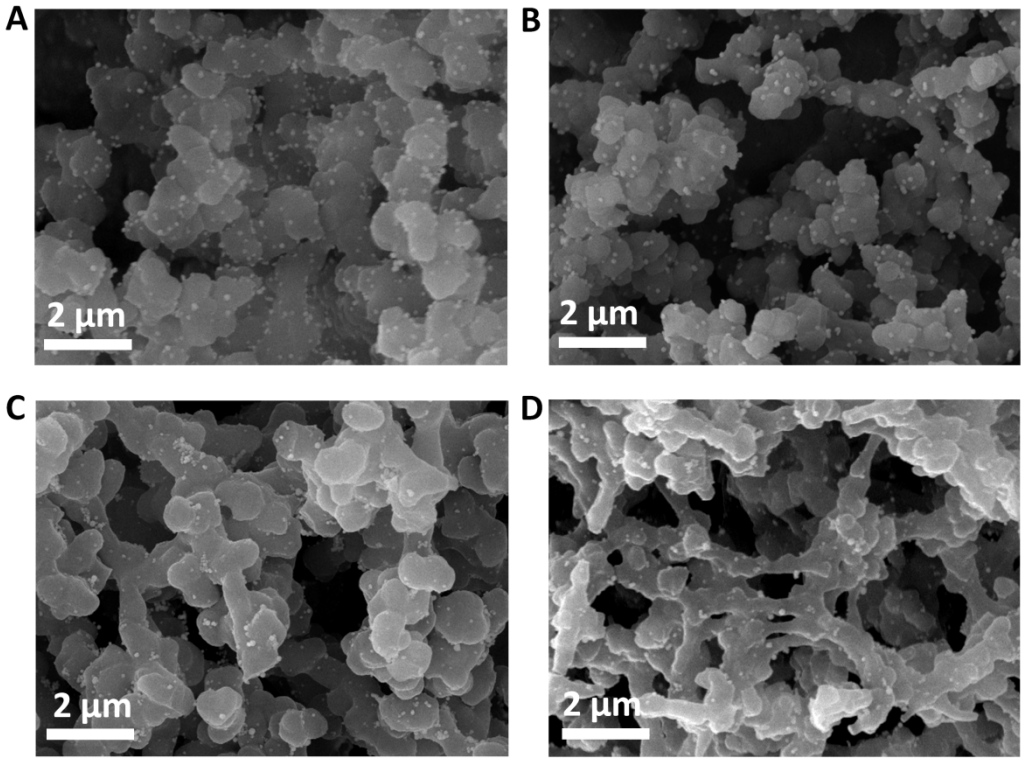

Figure S3. SEM images of (A) 5-PAAC-40, (B) 6-PAAC-40, (C) 7-PAAC-40 and (D) 8-PAAC-40.

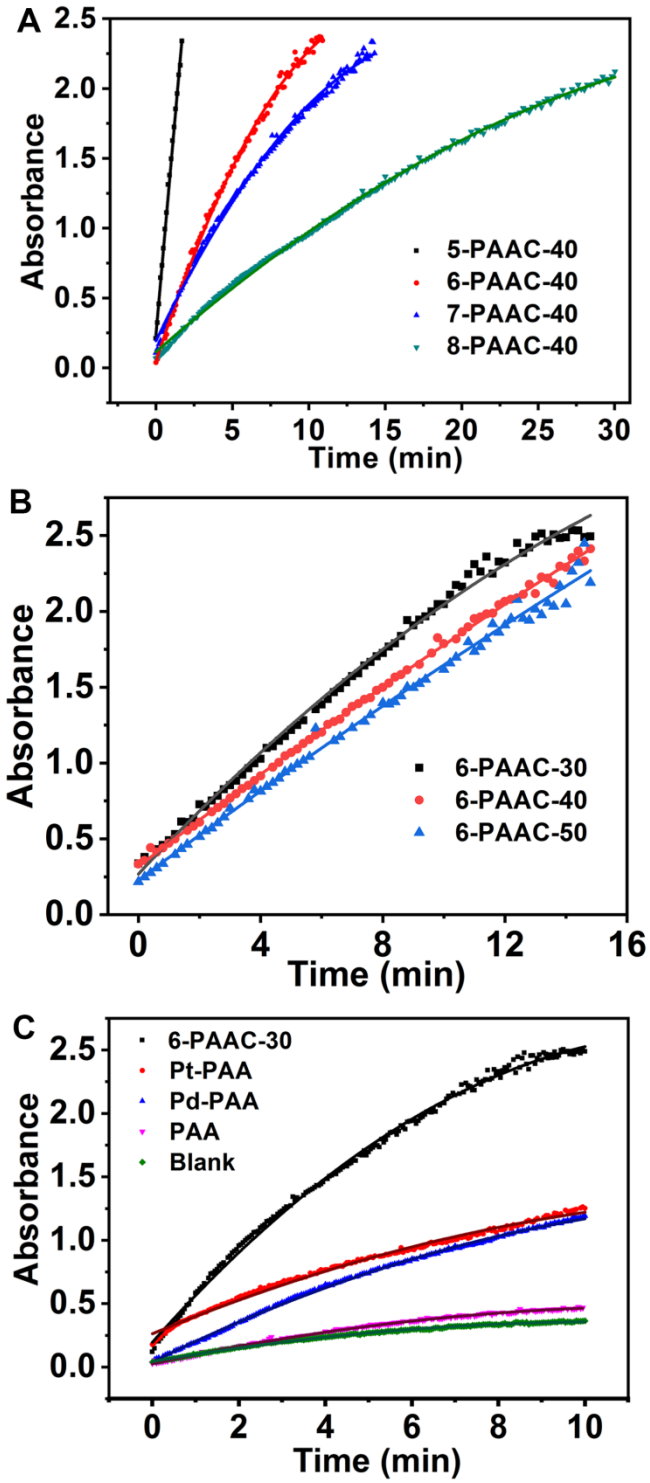

Figure S4. Time-dependent absorbance changes of TMB at 652 nm varied with different catalysts used for testifying the POD activity. Experimental conditions: MES-AC buffer solution, pH 4.5; TMB, 0.8 mM; H_2O_2, 1.0 mM; catalysts, 1.0 mg; measured at 37 ^{o}C.

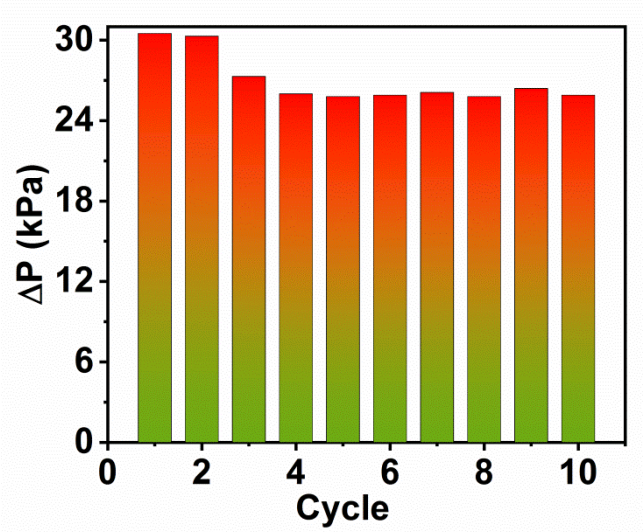

Figure S5. Reuse of 6-PAAC-30 (1.0 mg) in 20 mM H_2O_2 decomposition.

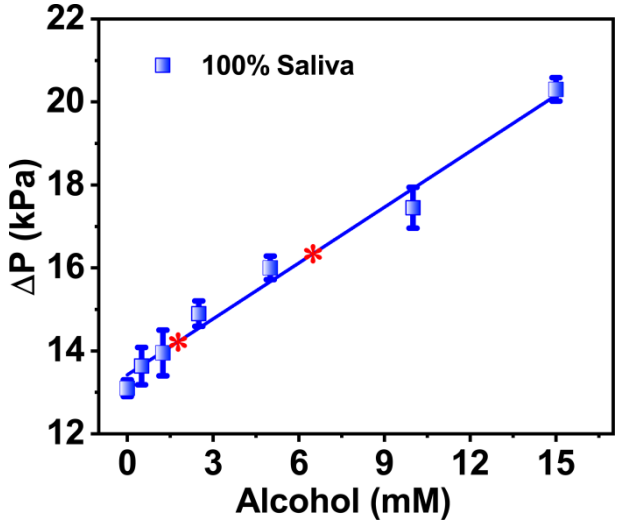

Figure S6. The linear correlation between ΔP and alcohol concentration in 100% saliva calculated from the curve in 40% saliva sample (blue line of Figure 4A, in manuscript). Red snowflakes represent DUI and DWI, respectively.