

## Supporting Information

### **Enzyme modified amphiphilic polymer nanoparticles as high-performance Pickering interface biocatalysts**

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The calibration curve for standard protein solution (BSA) is obtained by use of BCA solutions and known concentrations of BSA. The curve was obtained as follows: 20  $\mu\text{l}$  of PBS buffer with various BSA concentrations (0.025, 0.05, 0.1, 0.2, 0.3, 0.4 and 0.5  $\text{mg ml}^{-1}$ ) were added in different sample wells of a 96-well plate. Then 200  $\mu\text{l}$  of BCA working solution (mixture of 50 volume equivalents of BCA reagent A plus 1 volume equivalent of BCA reagent B) was added to each well and placed at 37  $^{\circ}\text{C}$  for 30 min before the absorbance was measured by the microplate reader (SpectraMax M2,  $\lambda = 570 \text{ nm}$ )

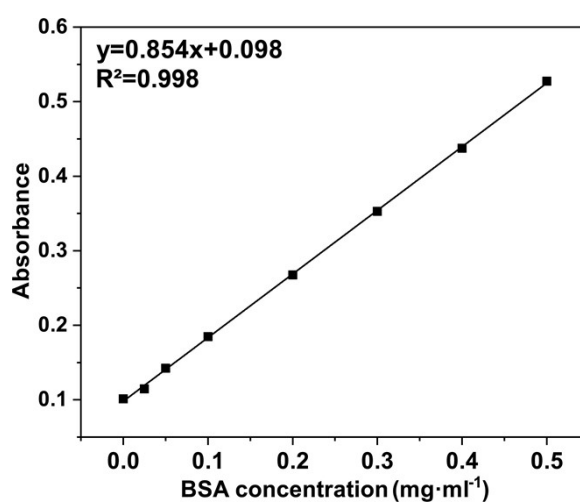


Figure S1 Standard curve of absorbance vs BSA concentration.

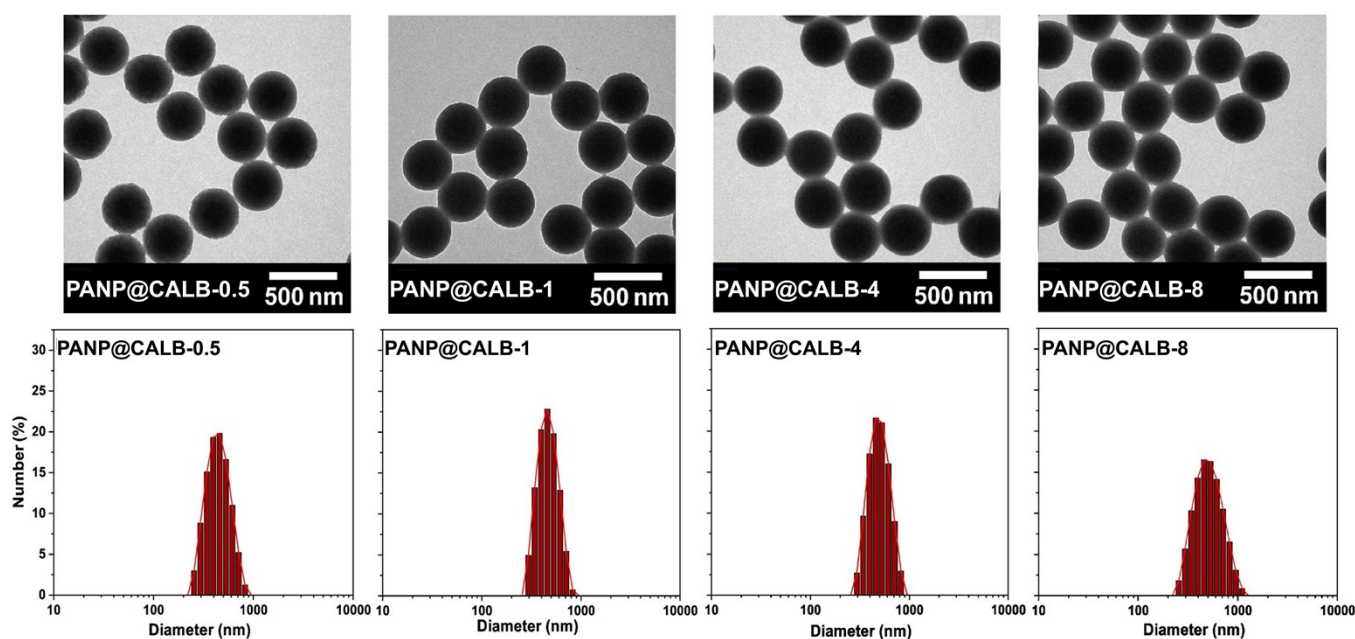
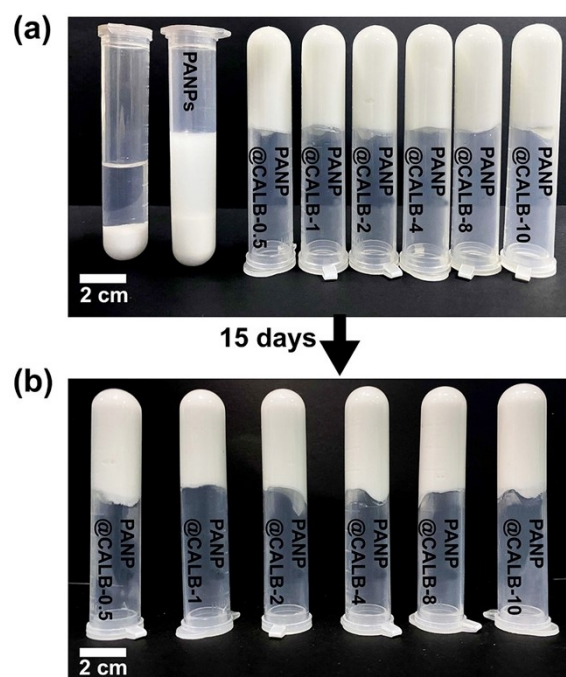
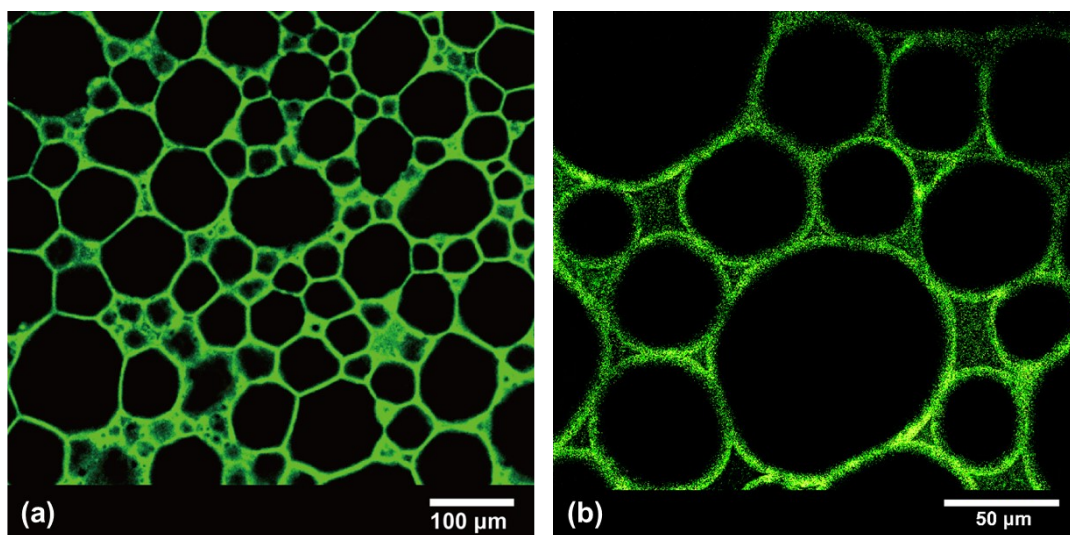


Figure S2 TEM and DLS characterization of PANP@CALB-0.5, PANP@CALB-1, PANP@CALB-4, PANP@CALB-8 particles.



**Figure S3** Photos of HIPPEs stabilized by PANPs and varied PANP@CALB particles: (a) HIPPEs freshly made. Far left of (a) the oil and aqueous phase before emulsification; (b) HIPPEs 15 days after they were prepared.



**Figure S4** CLSM images of HIPPE stabilized by FITC labeled PANP@CALB particles.

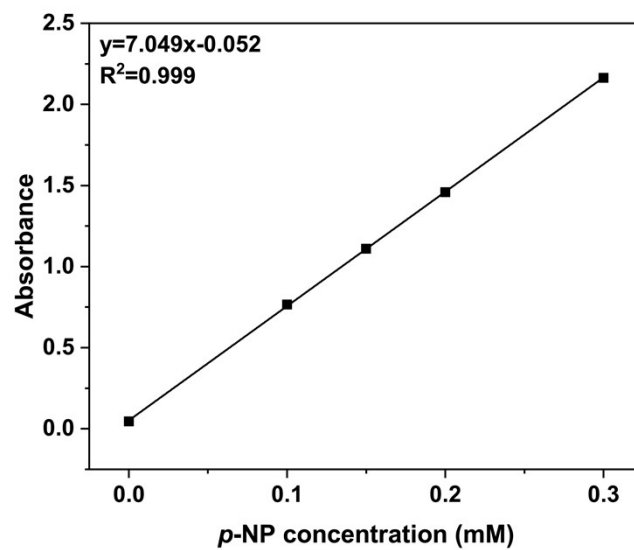


Figure S5 Standard curve of absorbance vs p-NP concentration