

Supplementary materials

Fig. 1S. Schematic diagram for preparation of immobilized particles.

Fig. 2S. The immobilized particle-bioreactor in daily operation.

Fig. 3S. Two step crosslinking immobilized particles before and after swelling experiment.

Fig. 4S. The CLSM images of PVA-SA(S) and PVA-SA(N) particles.

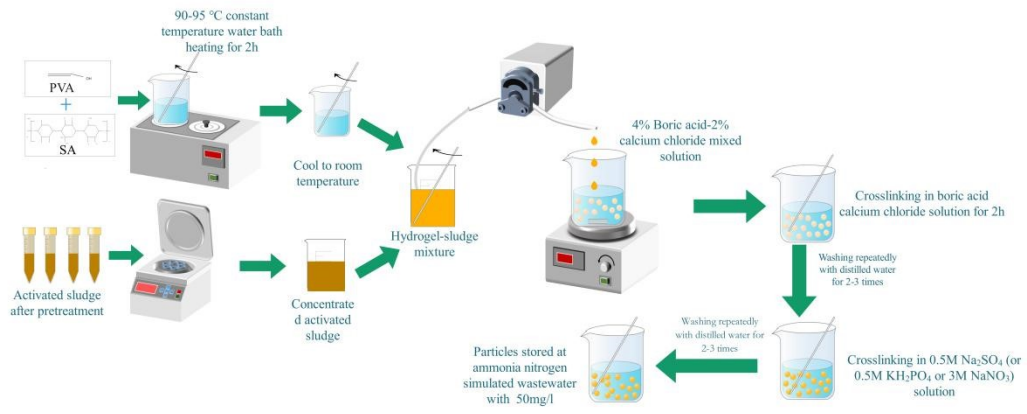


Fig. 1S. Schematic diagram for preparation of immobilized particles.

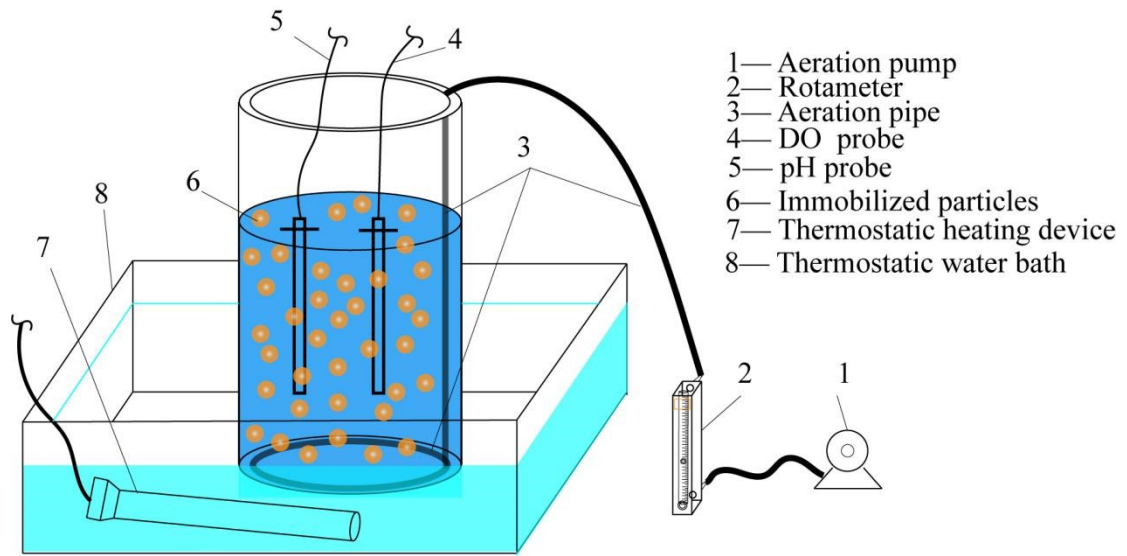


Fig. 2S. The immobilized particle-bioreactor in daily operation.

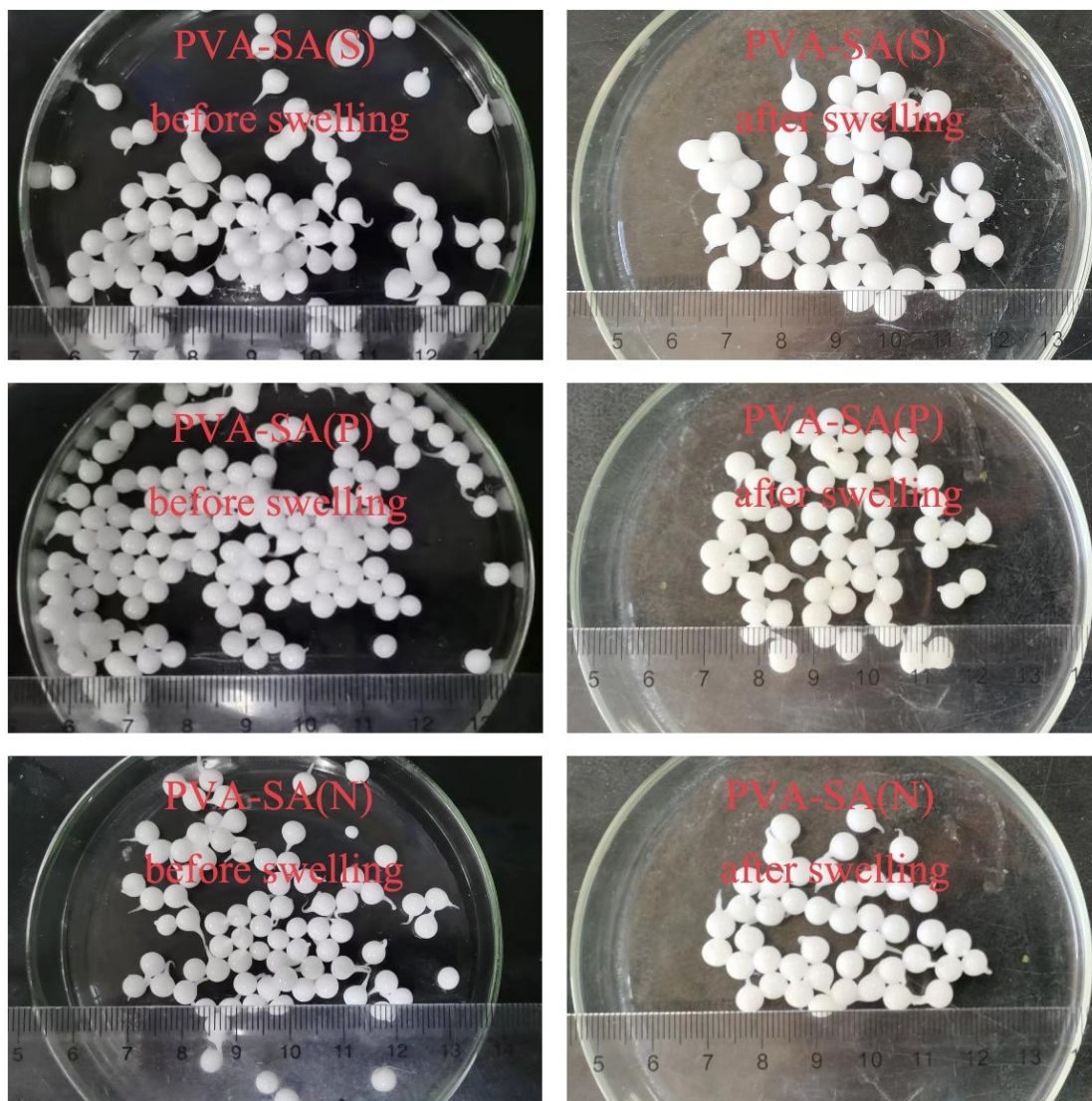


Fig. 3S. Two step crosslinking immobilized particles before and after swelling experiment.

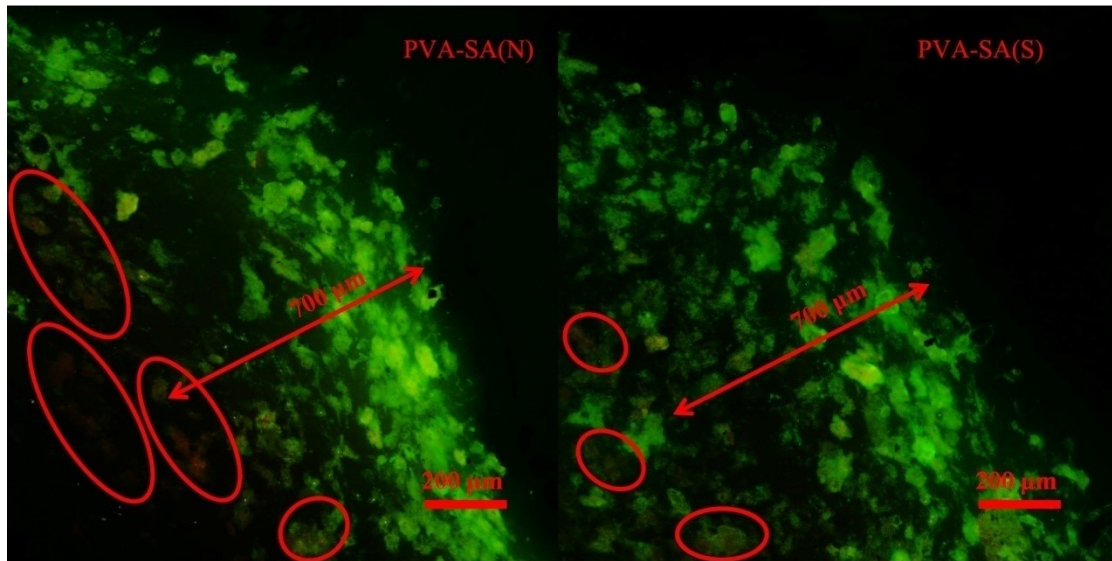


Fig. 4S. The CLSM images of PVA-SA(S) and PVA-SA(N) particles.