

Self-Assembly of Hydrophobic and Self-Healing Bio-nanocomposite-Coated Controlled Release Fertilizer

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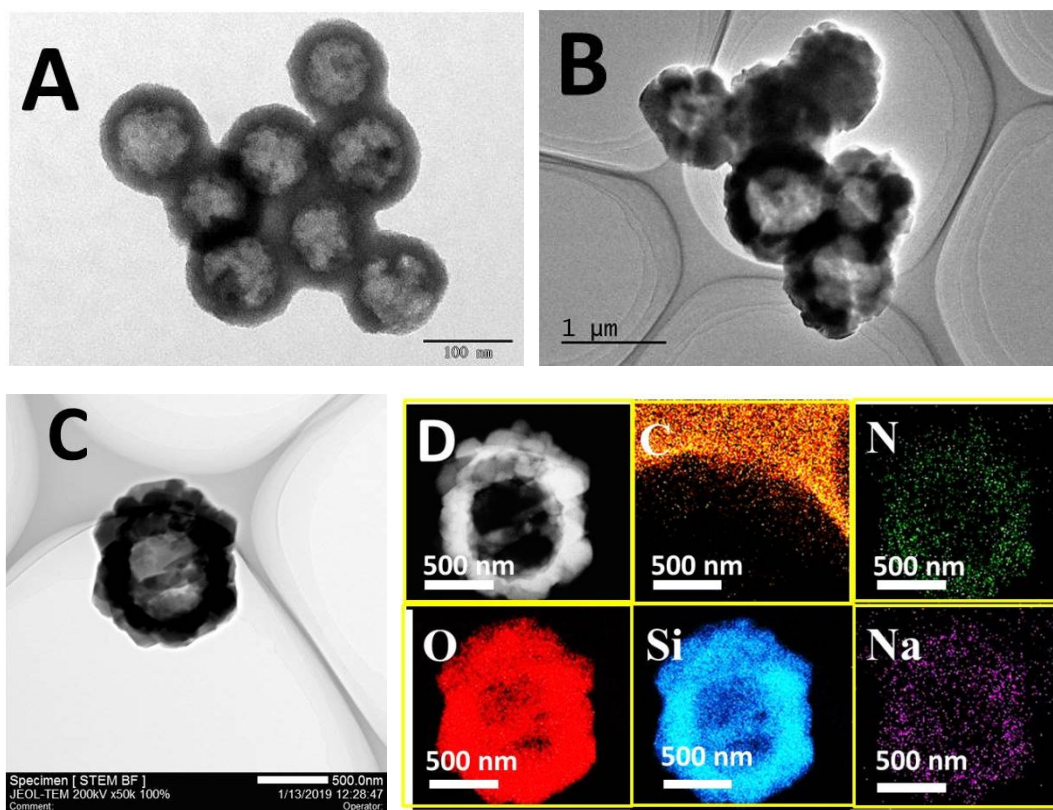


Fig. S1 TEM (A) of HNS before loaded; TEM (B and C) and EDS (D) of HNS after loaded and self-assembly.

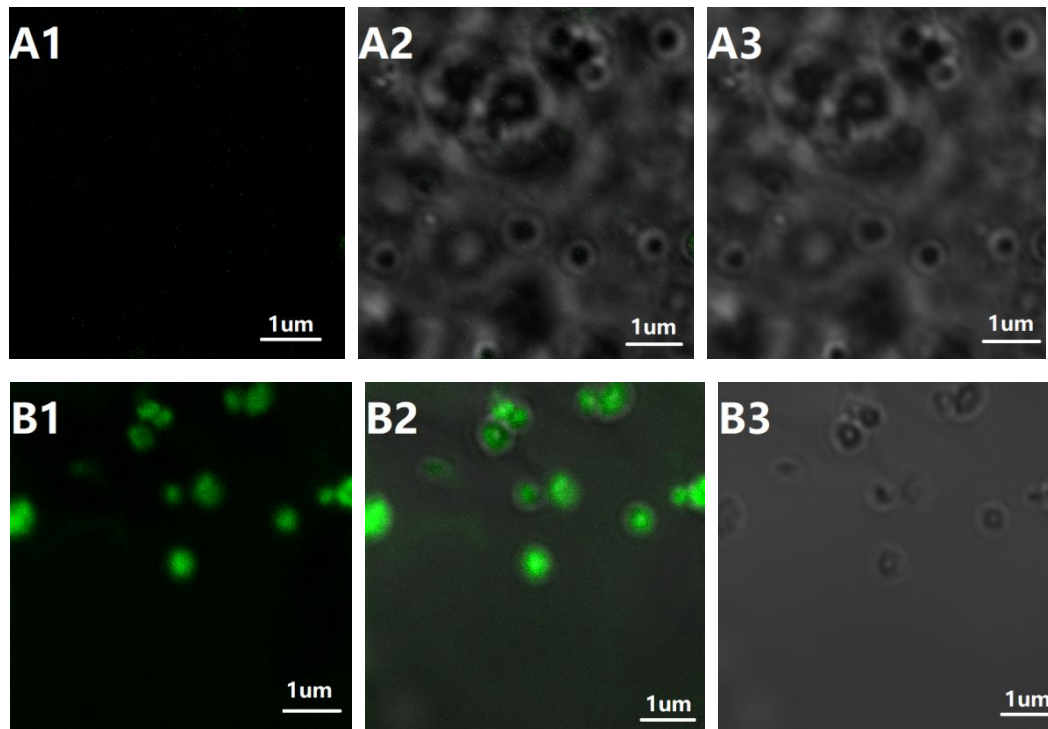
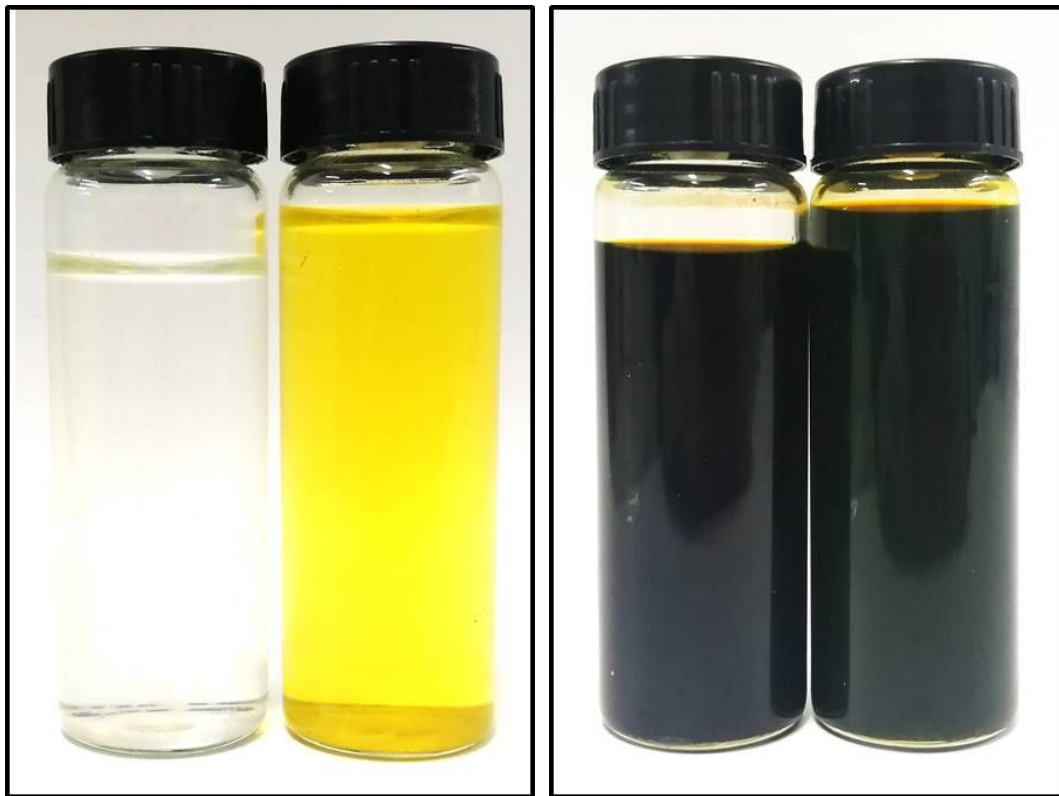


Fig S2 Photo show the SA before and after fluorescence labeling; LCMS (A1-A3) of HNS before and LCMS (B1-B3) after loaded with SA

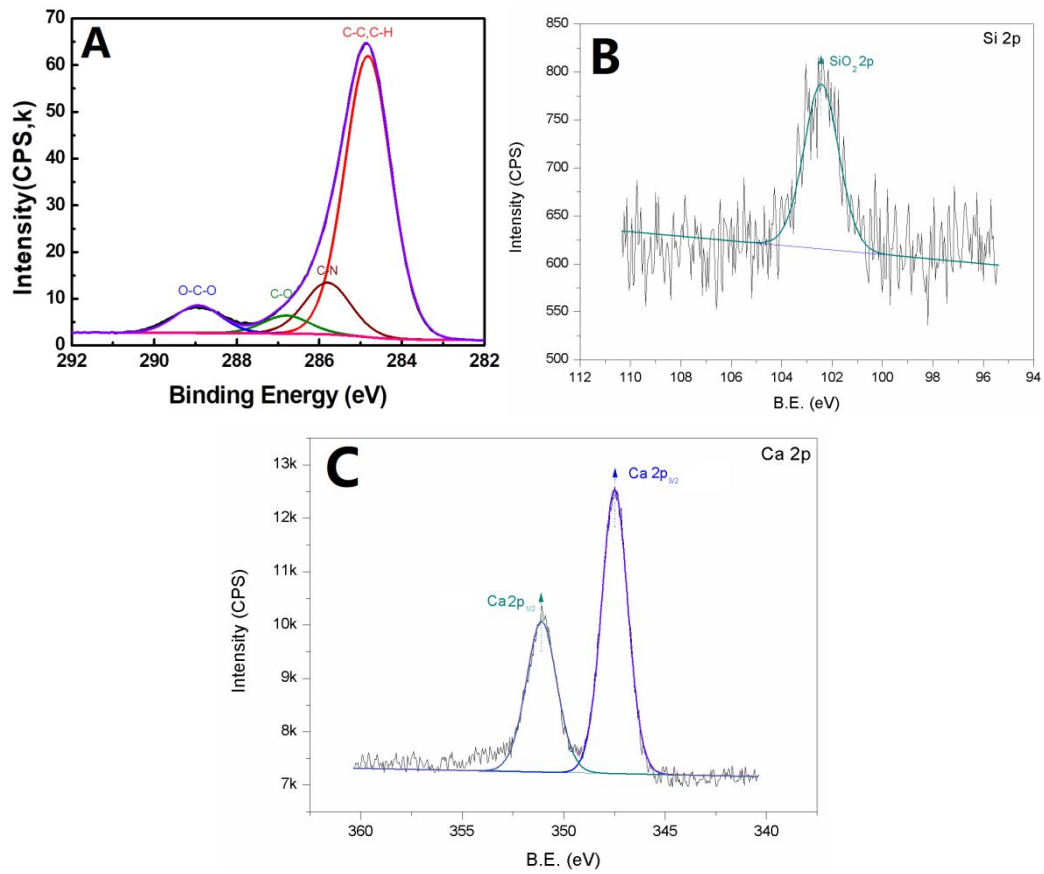


Fig.S3 XPS C 1s spectra (A), XPS Si 2p spectra (B) and XPS Ca 2p spectra (C) of coating

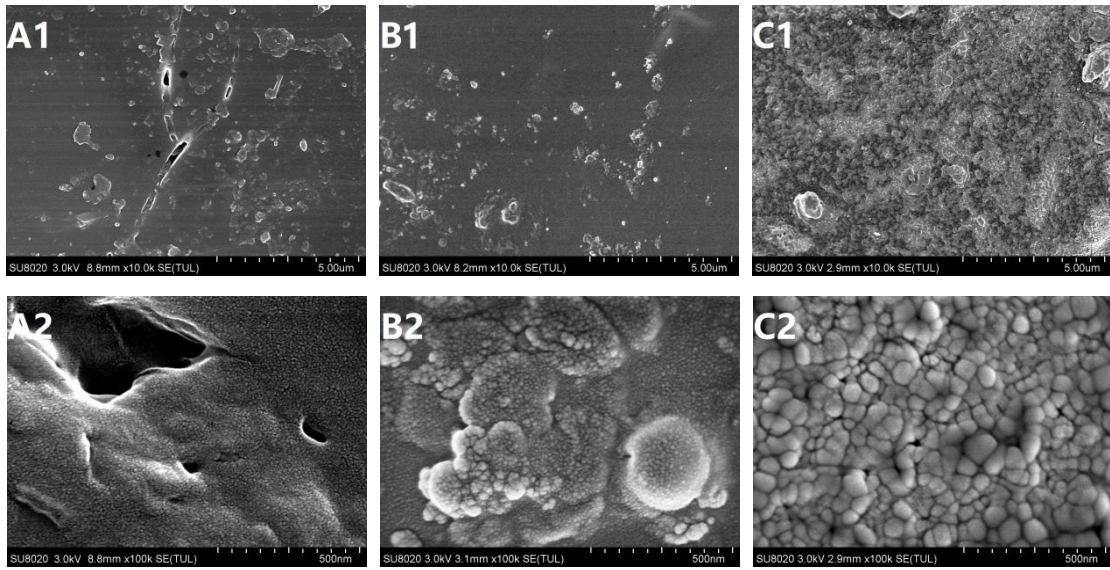


Fig.S4 SEM of BPCU(A1 and A2), SBPCU(B1 and B2) and SSBPCU (C1 and C2)

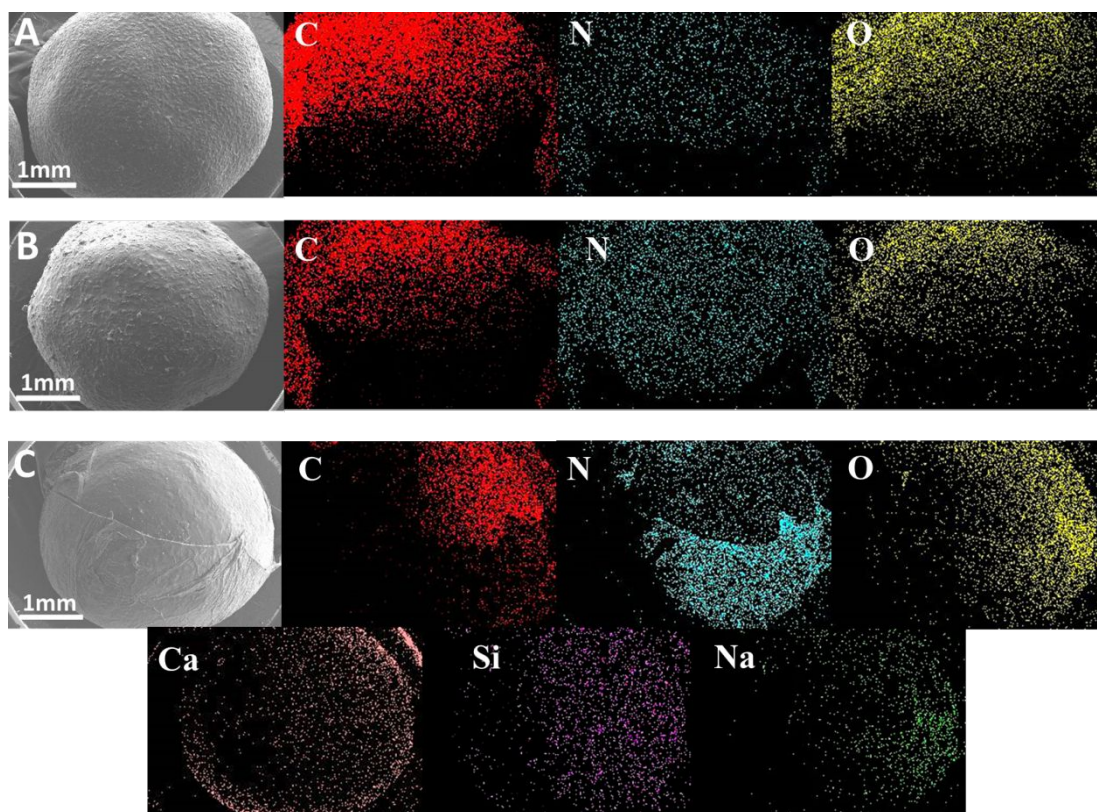


Fig.S5 EDX mapping of BPCU(A), SBPCU(B) and SSBPCU (C)

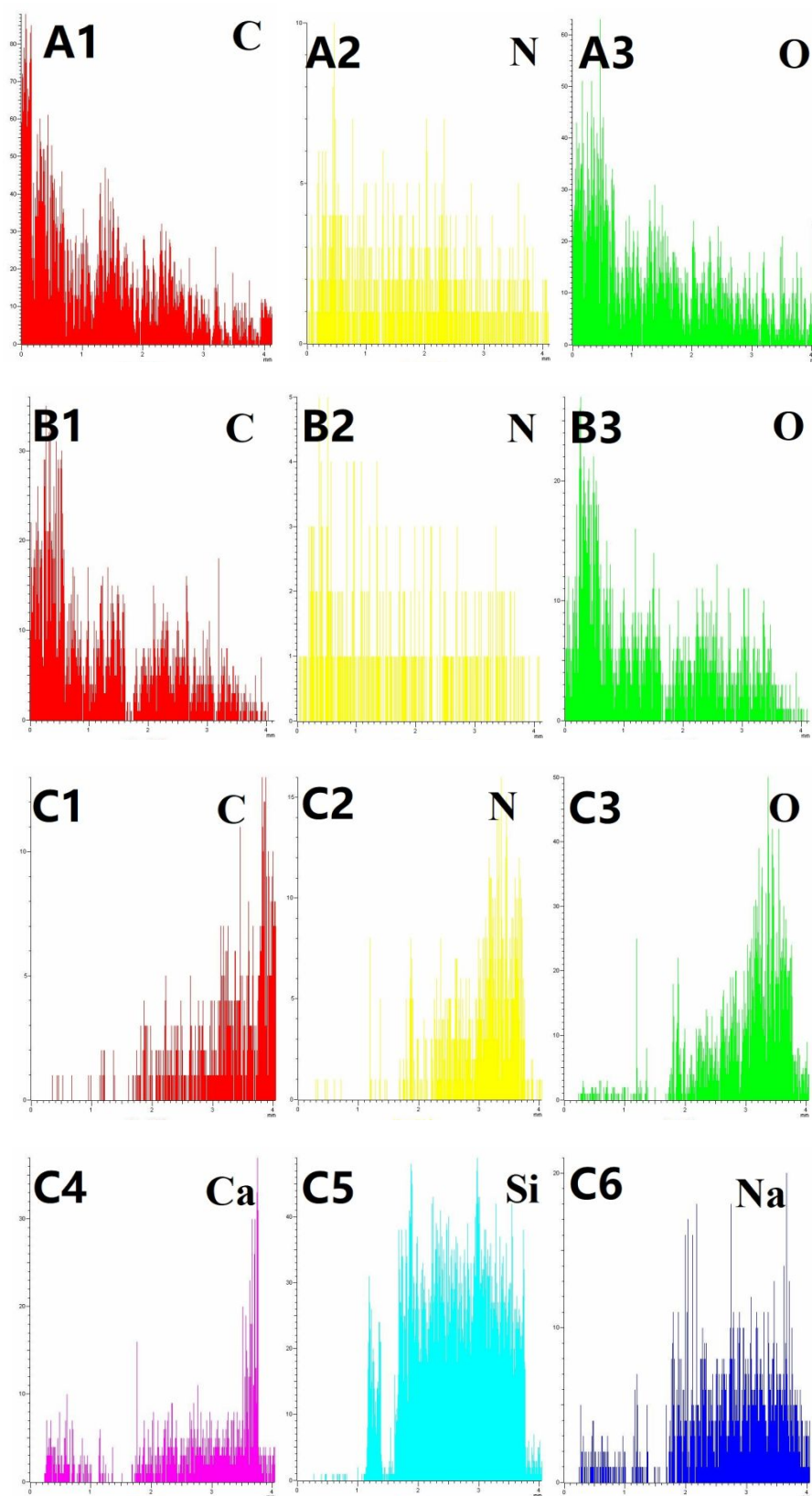


Fig.S6 EDX of BPCU(A1- A3), SBPCU(B1-B3) and SSBPCU (C1-C6)

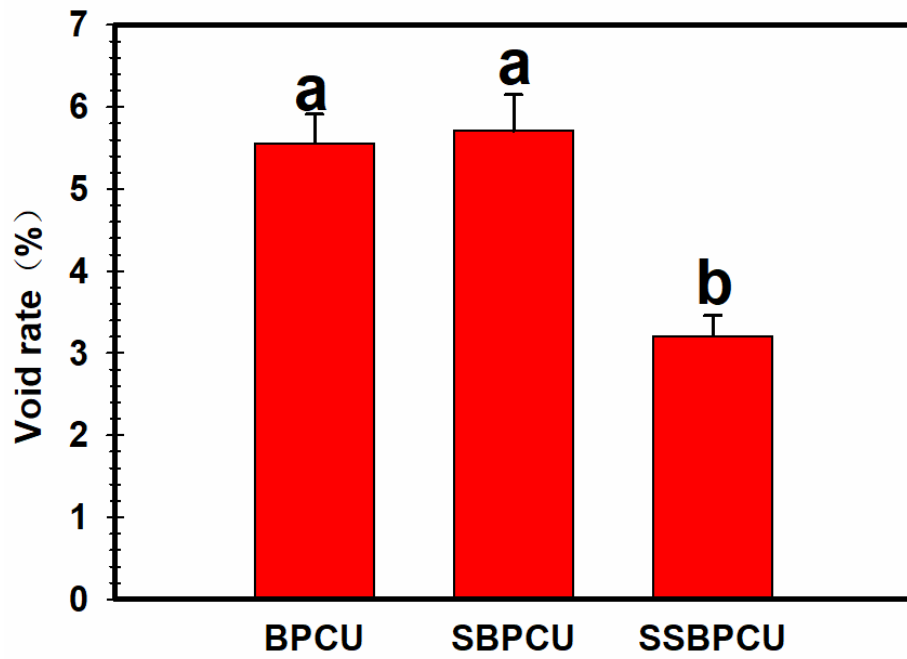


Fig. S7 Void rate of coating materials, different letters above the column indicate statistical significance at the $P = 0.05$ level within the same measurement date. The testing method was used X-ray computed tomography.

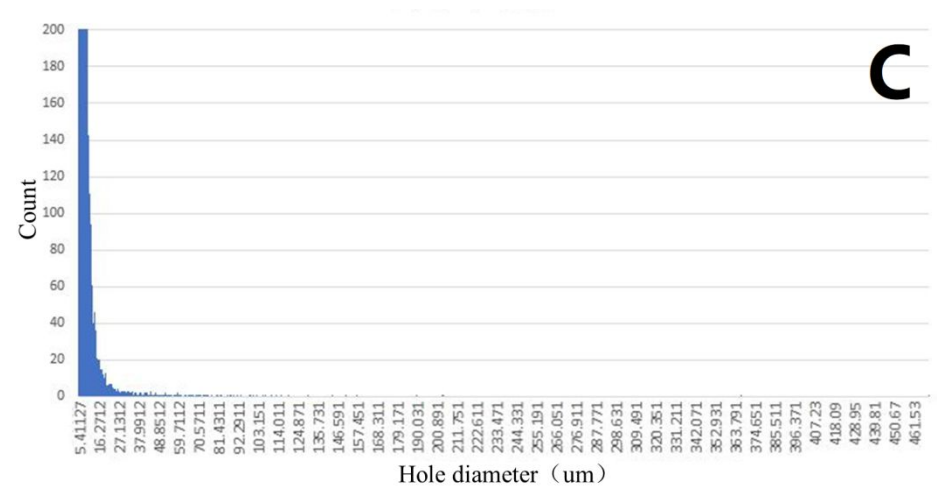
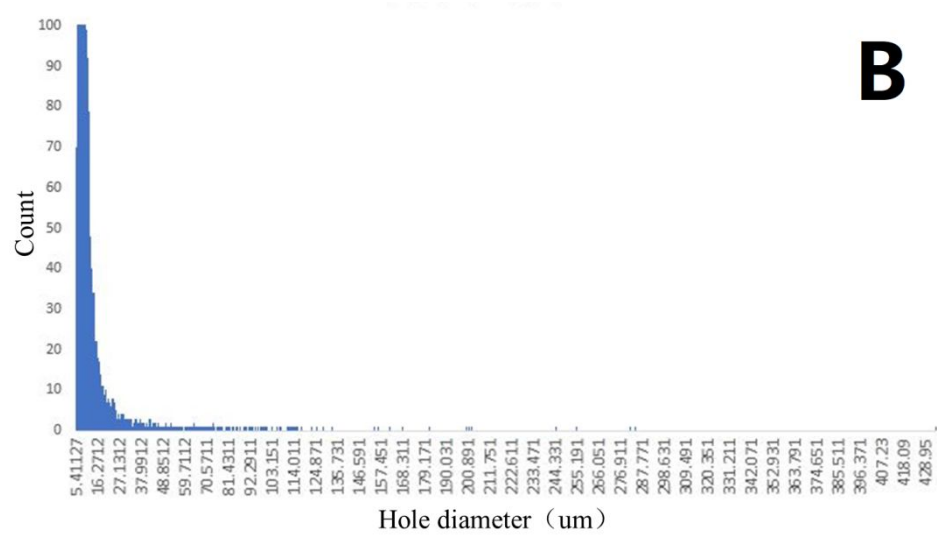
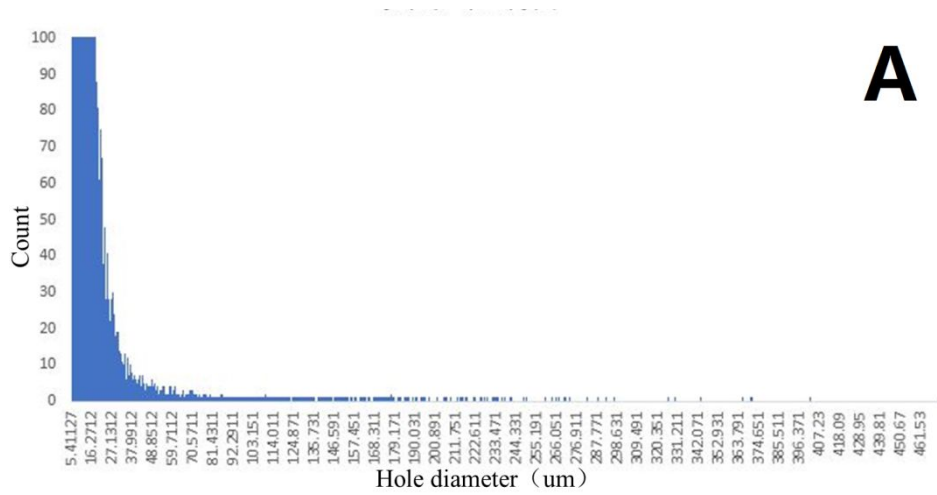


Fig. S8 Hole diameter distribution of BPCU(A), SBPCU(B) and SSBPCU(C)