Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Figure S1 SEM images of different enzyme-inorganic hybrid nanomaterials formed with Mn^{2+} (a-d) and Ag^{+} (e-h). a-e, Row 1, alkaline protease; b-f, Row 2, papain; c-g, Row 3, lipase; d-h, Row 4, α-amylase.

Figure S2 SEM images of (A) alkaline protease-$Cu_3(PO_4)_2 \cdot 3H_2O$ hybrid nanomaterials (0.1 mg/mL) after reacting with substrate for six cycles (a-f) and (B) alkaline protease-$Zn_3(PO_4)_2 \cdot 4H_2O$ hybrid nanomaterials (0.25 mg/mL) after reacting with substrate for three cycles (a-c)

Figure S3 XRD patterns of (A) alkaline protease-$Cu_3(PO_4)_2 \cdot 3H_2O$ hybrid nanomaterials after 700 °C calcination with JCPD Card no. 36-0203 and (B) alkaline protease-$Zn_3(PO_4)_2 \cdot 4H_2O$ hybrid nanomaterials after 700 °C calcination with JCPD Card no. 29-1390

Figure S4 (A) Low-resolution SEM image (a) and high-resolution SEM image (b) of alkaline protease-$Cu_3(PO_4)_2 \cdot 3H_2O$ hybrid nanomaterials after 700 °C calcinations; (B) Low-resolution SEM image (a) and high-resolution SEM image (b) of alkaline protease- $Zn_3(PO_4)_2 \cdot 4H_2O$ hybrid nanomaterials after 700 °C calcinations

Figure S1

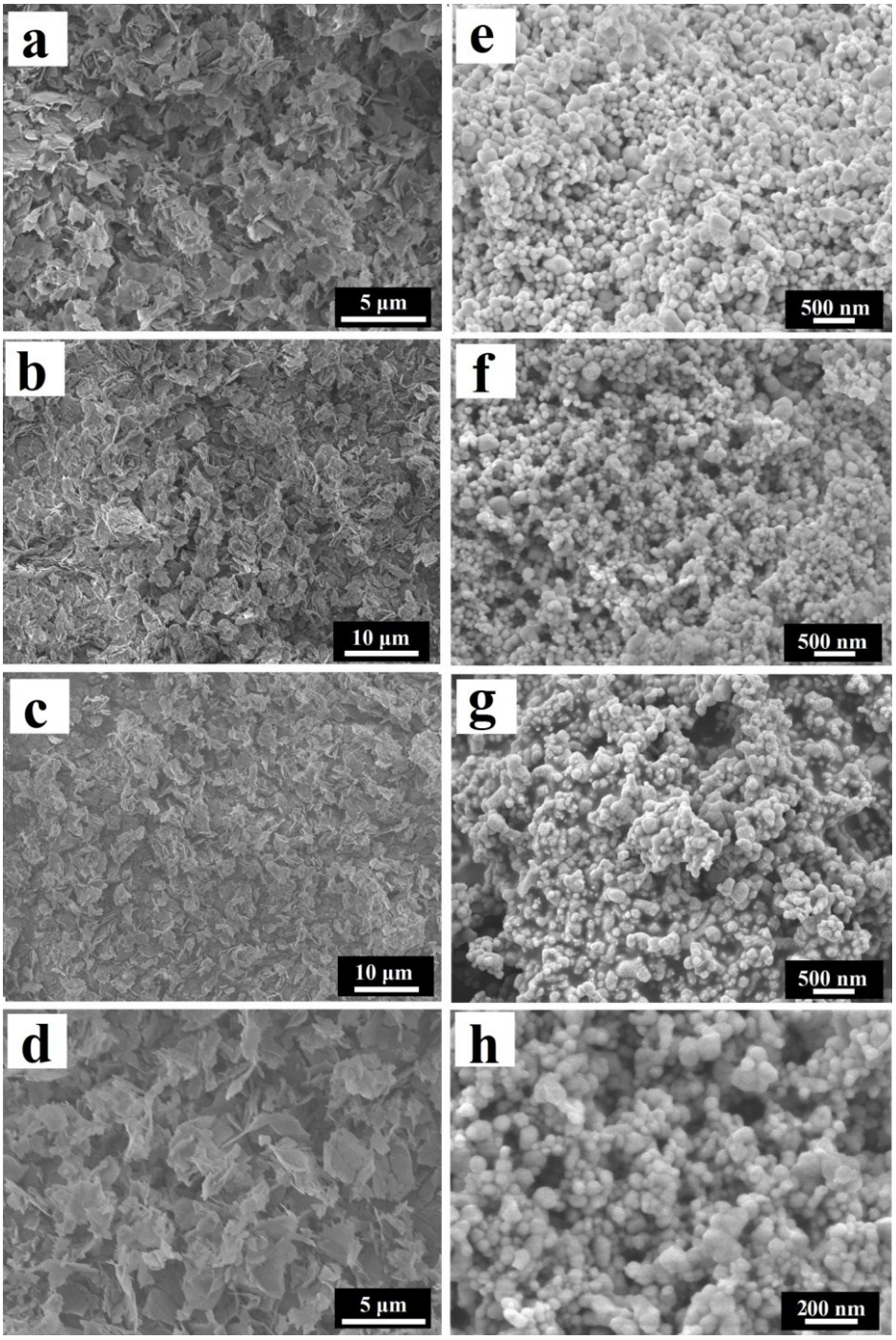
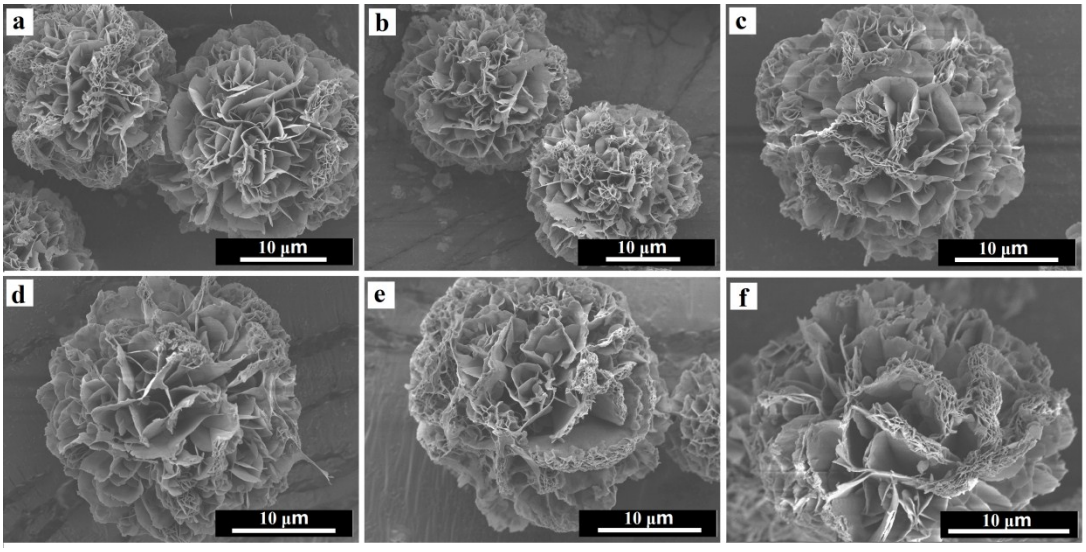


Figure S2

(A)



(B)

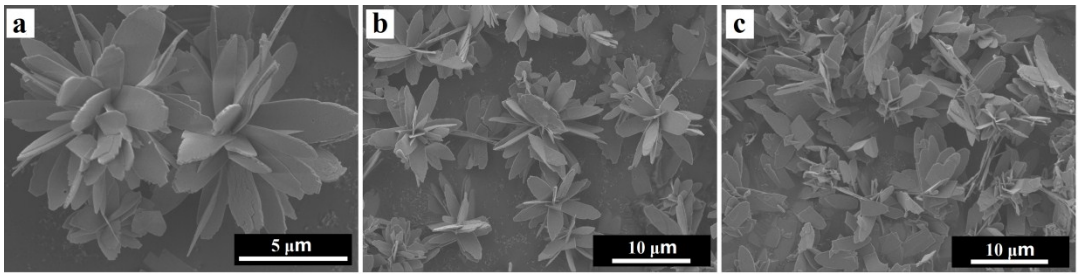
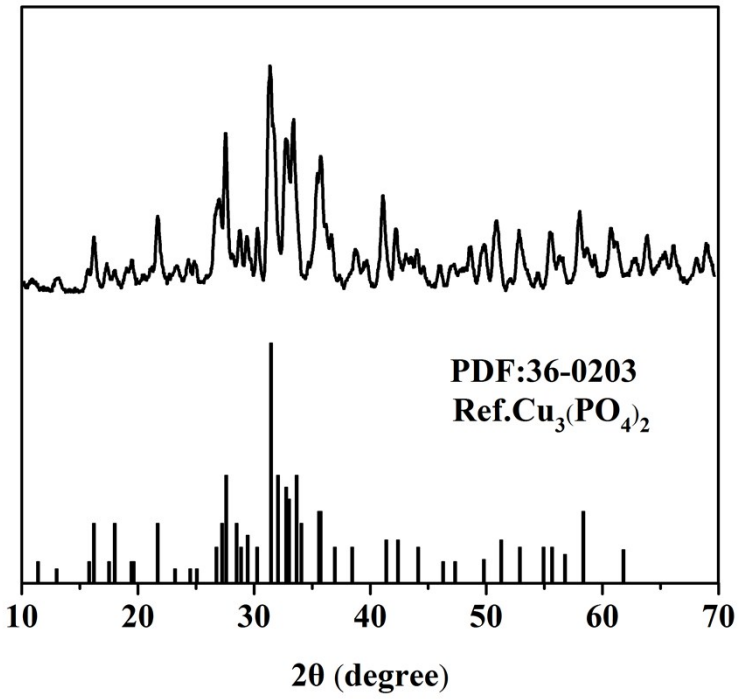


Figure S3

(A)


PDF:36-0203
Ref.Cu3(PO4)2
10
20
30
40
50
60
70
2θ (degree)

(B)

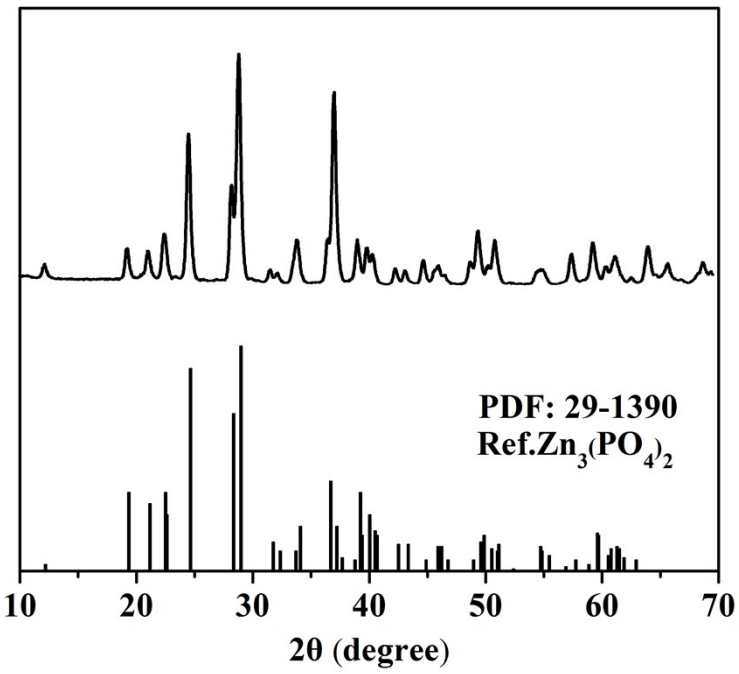
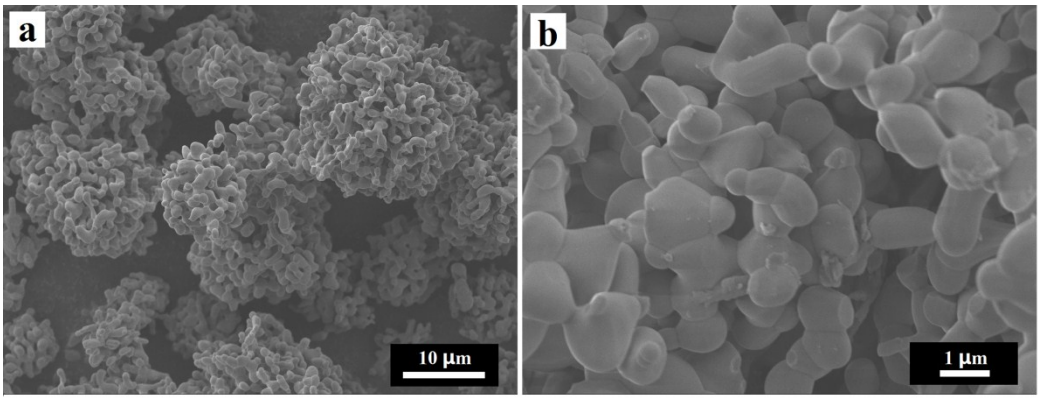

PDF: 29-1390
Ref.Zn3(PO4)2
10
20
30
40
50
60
70
2θ (degree)

Figure S4

(A)



(B)