Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Supporting information

In situ synthesis of well crystallized rhodium sulfide/carbon composite nanospheres as catalyst for hydrochloric acid electrolysis

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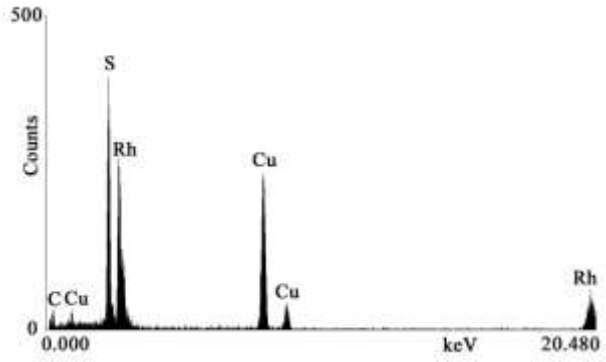

Fig. S1 EDX pattern of Rh_xS_y/C nanocomposite synthesized in i-propanol with S/Rh = 2.25.

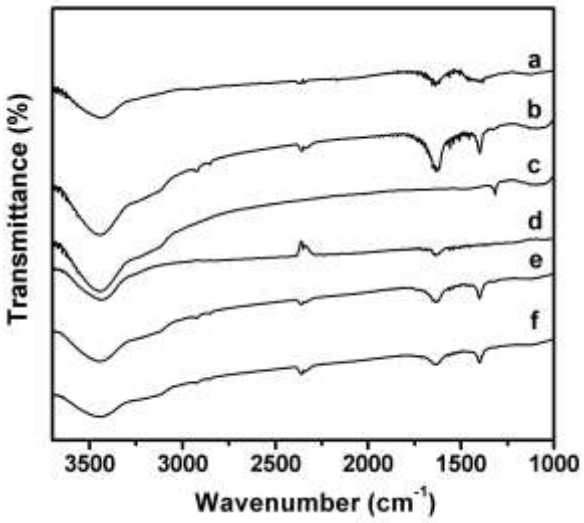

Fig. S2 FTIR spectra of pure KBr (a) and rhodium sulfide/carbon composites synthesized in ethanol (b), i-propanol (c), i-amyl alcohol (d), n-butanol (e) and n-propanol (f).

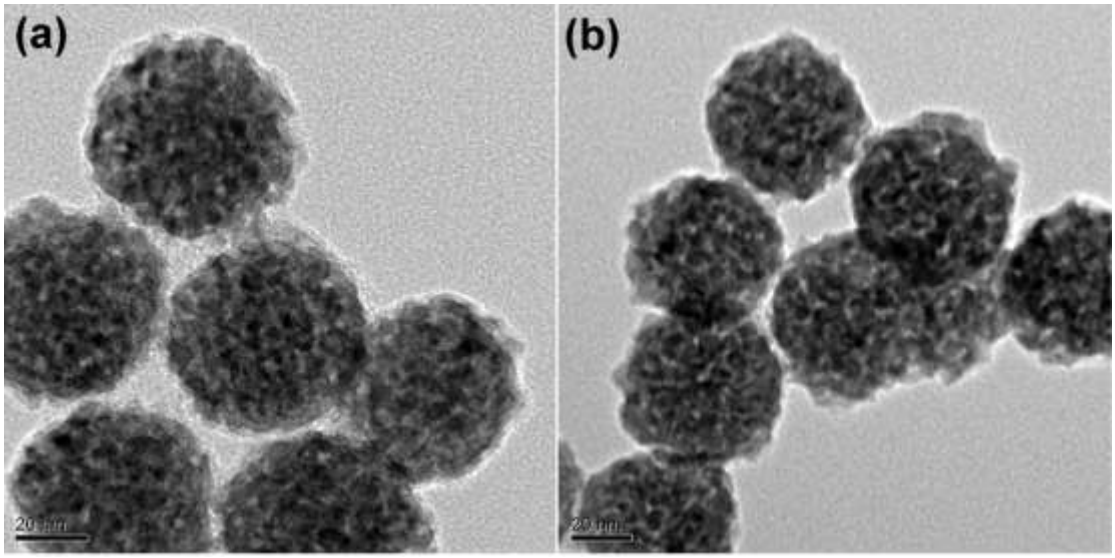

Fig. S3 TEM images of Rh_xS_y/C nanocomposite synthesized in i-propanol after refluxing in concentrated HCl (a) and aqua regia (b) for 12h.

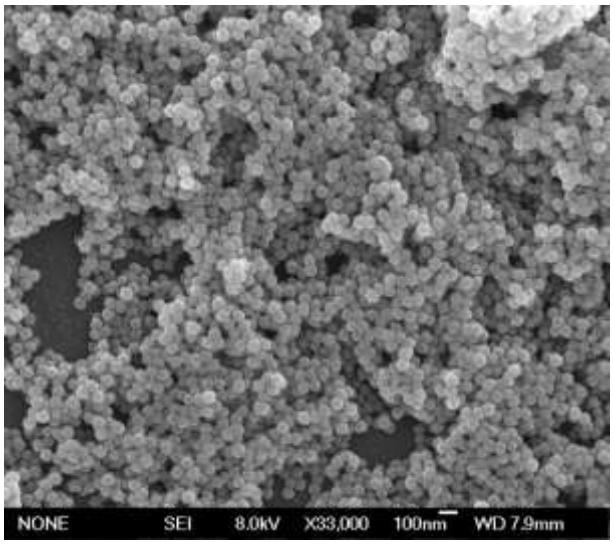

Fig. S4 SEM image of Rh_xS_y/C nanocomposite synthesized in i-propanol after heat-treatment at 600 °C in Ar.

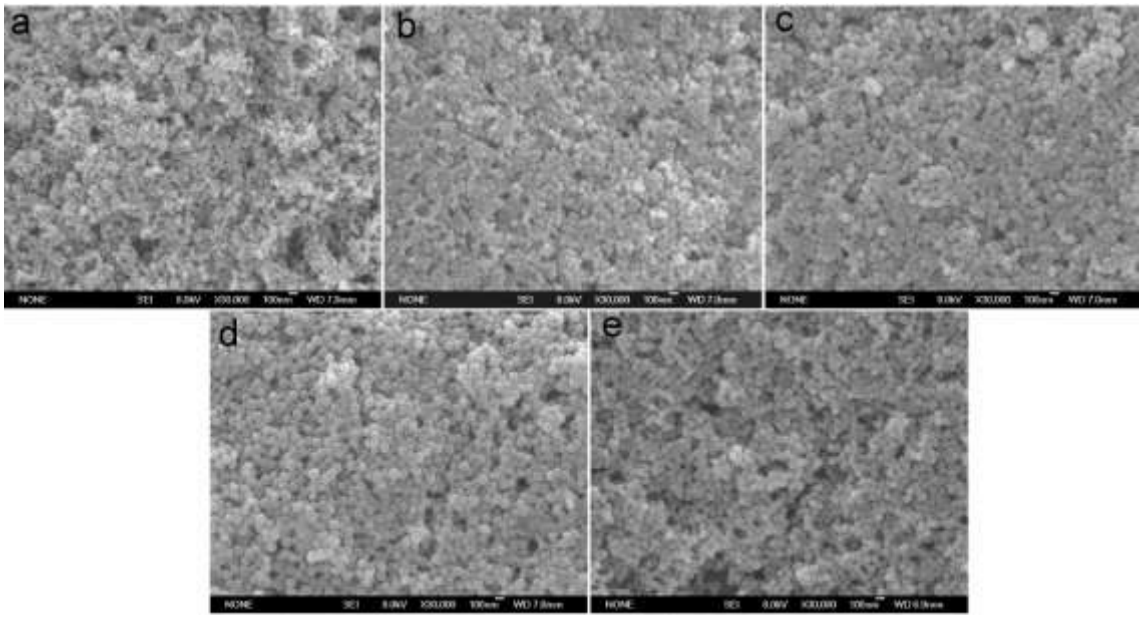

Fig. S5 Representative SEM images of Rh_xS_y/C nanocomposites synthesized in various alcohols. (a-e) are ethanol, n-propanol, n-butanol, i-butanol, and i-amyl alcohol, respectively.