

Figure 1.The device for removing hydrogen from the tail chlorine

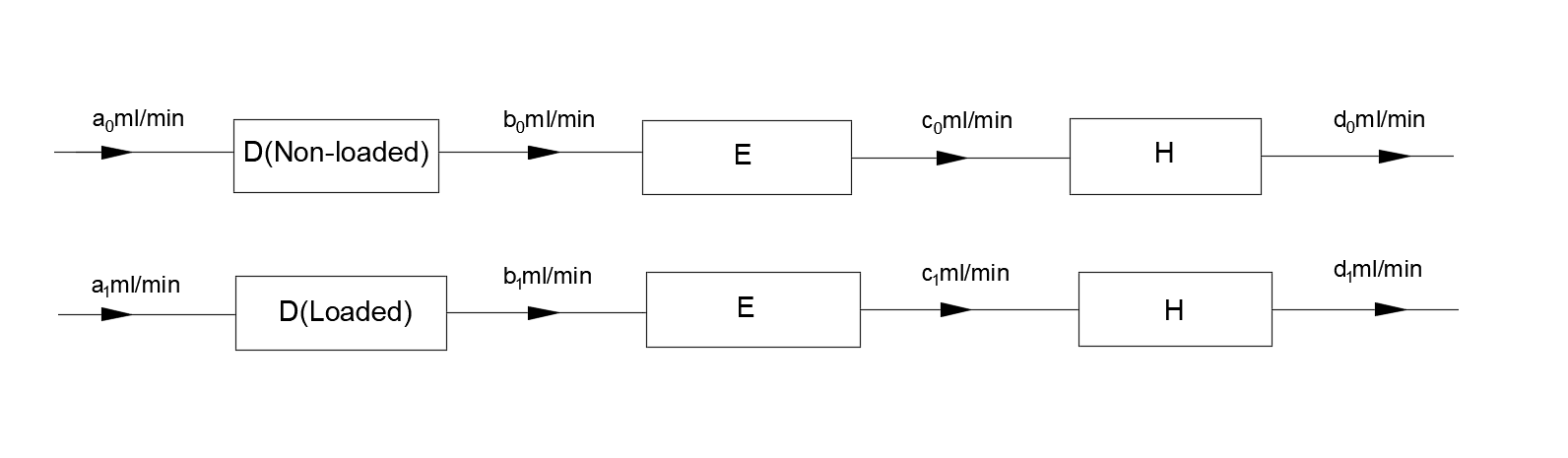


Figure 2.Calculation of hydrogen content in a gas mixture



Figure 3.The XRD patterns of Co3O4 at different reaction temperature



Figure4.The XRD patterns of Co3O4/ZSM-5 at different reaction temperatureure



Figure5.The XRD patterns of Co3O4/ZSM-5 at different calcination temperature



Figure6.The XRD patterns of Co3O4/ZSM-5 at different loading

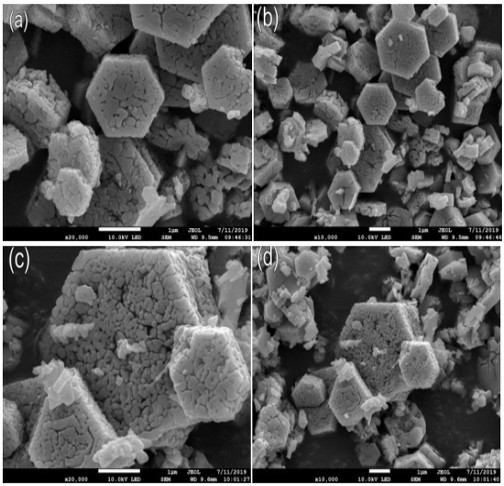


Figure 7.The SEM of Co3O4 before (a、b) and after reaction(c、d)

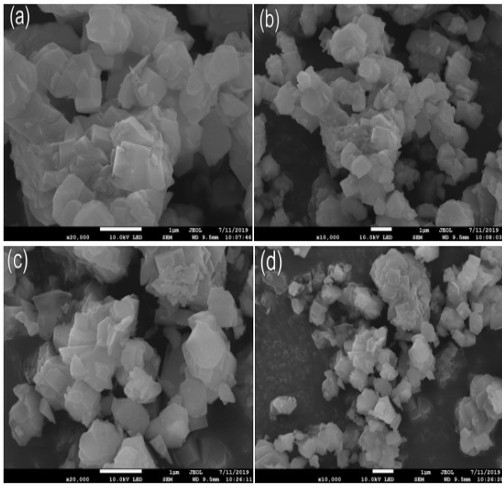


Figure 8.SEM images of Co3O4/ZSM-5 before (a、b) and after reaction(c、d)

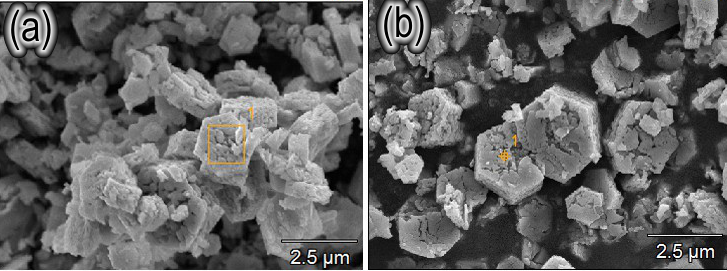


Figure9.EDS spectra of Co3O4 catalyst before (a) and after (b) reaction

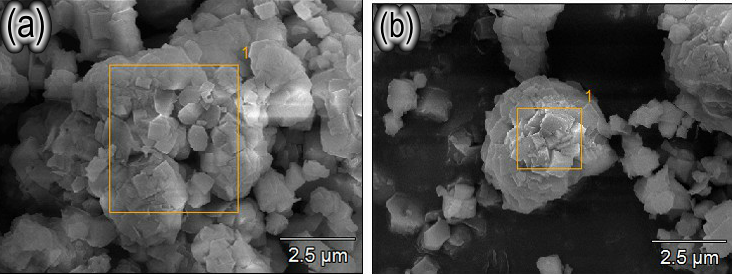


Figure10..EDS spectra of Co3O4/ZSM-5 catalyst before (a) and after (b) reaction



Figure 11.The N2 adsorption-desorption equilibrium curves



Figure 12.The pore dimension distribution



Figure13.Theoverall conversion rateof Co3O4



Figure14.The average conversion rateof Co3O4



Figure15.The average selectivityof Co3O4



Figure 16.The overall conversion rate of Co3O4/ZSM-5



Figure 17.The average conversion rate of Co3O4/ZSM-5



Figure 18.The average selectivity of Co3O4/ZSM-5



Figure 19.The overall conversion of Co3O4/ZSM-5



Figure 20.The average conversion of Co3O4/ZSM-5



Figure 21.The average selectivity of Co3O4/ZSM-5



Figure 22.The overall conversion of Co3O4/ZSM-5



Figure 23.The average conversion ofCo3O4/ZSM-5



Figure 24.The average selectivity of Co3O4/ZSM-5



Figure 25.Total conversion rate of hydrogen in the catalytic reaction of Co3O4/ZSM-5 over time