
Abstract

Catalysts of cobalt oxide loaded on sumecite having high surface area are prepd. and tested on thiophene hydrodesulfurization activity (HDS). Sumecite clays (montmorillonite, saponite, porous saponite, hectorite and stevensite) were used as supports. The catalysts were tested on HDS activity for thiophene by means of pulse reaction. Co-porous saponite catalyst in the series shows a highest thiophene HDS activity so far studied. It appears that the kind of sumecite and the structure have a strong influence on the catalytic activity. The catalysts were characterized by Temp. - Programmed Sulfiding (TPS) method and ESR. Redn. and sulfiding conditions of loaded Co were discussed.