

**High surface area smectite supported cobalt oxides as active catalysts for thiophene hydrodesulfurization.** Hayashi, Eiji; Iwamatsu, Eiji; Biswas, Mohammad Elias; Ali, Syed Ahmed; Yamamoto, Yosuke; Sanada, Yuzo; Lee, Augustin K. K.; Hamid, Halim; Yoneda, Toshikazu. Advanced Catalysts Research Laboratory, Petroleum Energy Center, KSP, Kawasaki, Japan. Chemistry Letters (1997), (5), 433-434. Publisher: Chemical Society of Japan, CODEN: CMLTAG ISSN: 0366-7022. Journal written in English. CAN 126:345122 AN 1997:326051 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

#### **Abstract**

Cobalt oxide loaded on high surface area smectites are prepd. and tested in a pulse flow reactor for thiophene hydrodesulfurization (HDS). Smectites used were montmorillonite, saponite, porous saponite, hectorite and stevensite. Co-porous saponite showed the highest activity among Co-smectites, Co/Al<sub>2</sub>O<sub>3</sub>, and Co-Mo/Al<sub>2</sub>O<sub>3</sub> so far studied. It suggests that the property of smectite has an influence on the catalyst activity.