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Deep Hydrodesulfurization Catalysis and Process

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Abstract

Driven by the growing demand for ultra-clean fuels and the increasing use of low-quality crudes/feedstocks, sulfur removal from hydrocarbon streams has received and will continue to attract much attention in the coming years. Tremendous efforts have been expended on the discovery and development of new catalysts for hydrodesulfurization (HDS) process. This talk aims to identify limiting factors bearing on the chemistry and catalysis in deep HDS. Among the topics discussed are reactivity-property relationships, catalyst functionalities, organonitrogen inhibiting effects, quantification of active sites via transient experiments, and catalyst/process synergisms.