



# 第187回触媒化学研究センター談話会

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演 題 : Characterization and Reactivity of  
Supported Vanadium Oxide Catalysts

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日 時 : 2005年4月18日(月)  
15:00 - 16:30

会 場 : 北海道大学創成科学研究棟  
4階 セミナー室 04-215号室

要 旨 : This presentation deals with an investigation of various supported vanadium catalysts for their characterization and catalytic properties. A series of vanadia catalysts with varying  $V_2O_5$  loadings ranging from 2-20% were prepared on supports such as  $TiO_2$ ,  $Nb_2O_5$ ,  $Al_2O_3$ ,  $ZrO_2$  and  $AlPO_4$ . These catalysts were characterized by X-ray diffraction (XRD), temperature programmed reduction (TPR), electron spin resonance (ESR), X-ray photoelectron Spectroscopy (XPS) BET surface area and oxygen chemisorption at 640 K. The catalytic properties are evaluated for vapor phase ammoxidation of 3-picoline to nicotinonitrile. The results are discussed with possible surface vanadia species present on the supports. The catalytic properties during ammoxidation of 3-picoline are related to the oxygen chemisorption sites.

《連絡先》 北大触媒化学研究センター 機能材料設計分野

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