# Propane Ammoxidation over $MoVTeNbO_x$ Catalysts

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Acrylonitrile (AN) has been generally produced through propylene ammoxidation. However, a great deal of efforts has been devoted to utilize propane instead of propylene as a raw material to produce AN since propane is cheaper than propylene. Recently, MoVTeNbOx system has been reported to be the most effective catalyst for propane ammoxidation, yielding acrylonitrile up to 60%. Hence, we prepared several $MoVTeNbO_x$ catalysts for propane ammoxidation and investigated their catalytic performance, where the preparation variables were the pH of solution and the ratio of Nb. All products were analyzed by a HP6890 gas chromatography (GC) equipped with a flame ionization detector (FID) and a HP-1 column. As a result, $MoV_{0.3}Te_{0.23}Nb_{0.11}O_x$ catalyst showed the best results with the AN selectivity and yield of ~70% and ~40%, respectively. In addition, $MoVTeNbO_x$ catalysts were characterized by several methods such as XRD, TEM, etc.