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**MOLYBDENUM PROMOTED VANADIUM-ANTIMONY-OXIDE BASED CATALYST
FOR SELECTIVE PARAFFIN AMMOXIDATION**

Abstract of the Disclosure

A process of manufacturing acrylonitrile or methacrylonitrile by the catalytic reaction in the vapor phase of a paraffin selected from propane and isobutane with molecular oxygen and ammonia by catalytic contact of the reactants in a reaction zone with a catalyst, the feed composition having a mole ratio of the paraffin to ammonia in the range of from about 2.5 to 16 and a mole ratio of paraffin to oxygen in the range of from about 1.0 to 10, wherein said catalyst has the elements in the proportions indicated by the empirical formula:



where

A is one or more of Ti, Sn, Fe, Cr and Ga;

D is one or more of Li, Mg, Ca, Sr, Ba, Co, Ni, Zn, Ge, Nb, Zr, W,
Cu, Te, Ta, Se, Bi, Ce, In, As, B and Mn;

m equals 0.8 to 4;

a equals 0.01 to 2;

$0 < b < 0.005$;

d is 0 to 2;

x is determined by the oxidation state of the cations present, and the catalyst has been heat treated at a temperature of at least 780°C.