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(21) International Application Number: PCT/US00/01151 (22) International Filing Date: 18 January 2000 (18.01.00) (30) Priority Data: 09/246,266 8 February 1999 (08 02.99) US (71) Applicant: THE STANDARD OIL COMPANY [US/US]; Law Dept. – MC 1907A, 200 East Randolph Drive, Chicago, IL 60601 (US). (72) Inventor: BRAZDIL, James, F., Jr.; 22W061 Marston Avenue, Glen Ellyn, IL 60137–6819 (US). (74) Agent: YUSKO, David, P.; BP Amoco Corporation, Law Dept. – MC 1907A, 200 East Randolph Drive, Chicago, IL 60601 (US).		(81) Designated States: BG, BR, CA, CN, IN, JP, KR, RO, RU, SG, TR, ZA, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>  *G00001*
(54) Title: ARSENIC PROMOTED VANADIUM–ANTIMONY–OXIDE BASED CATALYST FOR SELECTIVE PARAFFIN AMMOXIDATION (57) Abstract 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: $VSb_mA_nD_bQ_rR_xO_x$ 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, Zr, Cu, Ta, Bi, Ce, In, B and Mn; Q is one or more of Mo, W, and Nb; R is one or more of As, Tc, and Se; m equals 0.8 to 4, n equals 0.01 to 2; d is 0 to 2; $0 \leq q < 0.01$; preferably $0 < q < 0.005$; $q + r$ are greater than 0; x is determined by the oxidation state of the cations present. Preferably, the catalyst has been heat treated at a temperature of at least 780 °C and R is selected to be As and Q is selected to be Mo.		



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