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(54) Title: IMPROVED CATALYST FOR THE MANUFACTURE OF ACRYLONITRILE

(57) Abstract: A catalyst composition comprising a complex of catalytic oxides of iron, bismuth, molybdenum, cobalt, cerium, antimony, at least one of nickel or magnesium, and at least one of lithium, sodium, potassium, rubidium, or thallium, and characterized by the following empirical formula: $A_aB_bC_cFe_dBi_eCo_fCe_gSb_hMo_mO_x$ wherein A is at least one of Cr, P, Sn, Te, B, Ge, Zn, In, Mn, Ca, W, or mixtures thereof, B is at least one of Li, Na, K, Rb, Cs, Tl, or mixtures thereof, C is least one of Ni, Mg or mixtures thereof, a is 0 to 4.0, b is 0.01 to 1.5, c is 1.0 to 10.0, d is 0.1 to 5.0, e is 0.1 to 2.0, f is 0.1 to 10.0, g is 0.1 to 2.0, h is 0.1 to 2.0, m is 12.0 to 18.0 and x is a number determined by the valence requirements of the other elements present. The catalyst is useful in processes for the ammoxidation of an olefin selected from the group consisting of propylene, isobutylene or mixtures thereof, to acrylonitrile, methacrylonitrile and mixtures thereof, respectively.