ABSTRACT

An oxide catalyst composition for use in producing methacrolein or a mixture of methacrolein and methacrylic acid, wherein the oxide catalyst composition is represented by the formula $(Mo + W)_{12} Bi_a A_b B_c Fe_d X_e Sb_f O_g$, wherein: A is at least one member selected from the group consisting of Y and the elements of the lanthanoid series exclusive of Pm; B is at least one member selected from the group consisting of K, Rb and Cs; X is Co solely, or a mixture of Co and at least one member selected from the group consisting of Mg and Ni; and a, b, c, d, e, f and g are, respectively, the atomic ratios of Bi, A, B, Fe, X, Sb and O, relative to twelve atoms of the total of Mo and W, wherein the atomic ratios (a to f) of the elements and the relationship between the amounts of the elements are chosen so as to satisfy specific requirements.

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