

ABSTRACT

An object is to provide a method for producing acrylic acid through vapor-phase contact oxidation of acrolein, solving the problem that the catalyst on the gas inlet port side worsens more rapidly than the catalyst on the gas outlet port side and therefore enabling stable long-term use of the catalyst to produce acrylic acid at high yield. A method for producing acrylic acid through vapor-phase contact oxidation of acrolein, wherein a reactor tube is divided into at least two catalyst layers, and catalysts having a higher activity are charged in the reactor tube sequentially toward an outlet port side from a material source gas inlet port side for a reaction therein to give acrylic acid, and wherein a catalyst activity-controlling method is a method comprising:

a step of mixing a molybdenum-containing compound, a vanadium-containing compound, a copper-containing compound and an antimony-containing compound with water, then drying and calcining a resulting mixture, in which a catalytically-active element composition is kept constant but material source compounds are made to vary in type to give composite metal oxides having a different activity.