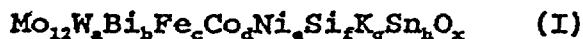


PROCESS FOR THE MANUFACTURE OF ACROLEIN FROM
PROPYLENE BY A REDOX REACTION AND USE OF A SOLID MIXED
OXIDE COMPOSITION AS REDOX SYSTEM IN THE SAID REACTION

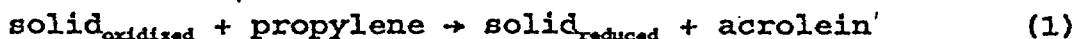
ABSTRACT

The present invention relates to the use of a mixed oxide solid composition of formula (I):



where $0 \leq a \leq 5$, $0.5 \leq b \leq 5$, $0.1 \leq c \leq 10$, $0.5 \leq d \leq 10$, $0 \leq e \leq 10$, $0 \leq f \leq 15$, $0 \leq g \leq 1$, $0 \leq h \leq 2$ and x is the quantity of oxygen bonded to the other elements and depends on their oxidation states,

in the manufacture of acrolein by oxidizing propylene, the said solid composition reacting with propylene according to the redox reaction (1):



To manufacture acrolein, gaseous propylene is passed over a solid composition of formula (I), to conduct the redox reaction (1) by operating at a temperature of 200 to 600°C, at a pressure of 1.01×10^4 to 1.01×10^6 Pa (0.1 to 10 atmospheres) and with a residence time of 0.01 second to 90 seconds, in the absence of molecular oxygen.