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(54) Title: VAPOR PHASE OXIDATION OF PROPYLENE TO PROPYLENE OXIDE

(57) Abstract

Propylene is converted to propylene oxide in a vapor phase oxidation process employing a silver catalyst supported on an alkaline earth metal carbonate and containing both a potassium salt such as potassium nitrate and a molybdenum promoter. The potassium salt and the molybdenum promoter may be simulatneously supplied by the use of a potassium salt of a molybdenum oxyanion. The efficiency of the process is greatly enhanced through the simultaneous inclusion of carbon dioxide and an organic halide in the feedstream. The feedstream need not contain a nitrogen oxide species such as NO to attain high propylene oxide selectivity.