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(12) PATENT SPECIFICATION  
 ABSTRACT  
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 (43) 2.10.80  
 (51)<sup>2</sup> C07C 1/16  
 (54) Producing C<sub>2</sub>-C<sub>4</sub> hydrocarbons from carbon monoxide and hydrogen  
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 (74) PO  
 (57) Claim

1. A process for producing saturated and unsaturated hydrocarbons containing two to four carbon atoms by contacting carbon monoxide and hydrogen at reactive conditions, characterized by contacting the carbon monoxide and hydrogen with a catalyst consisting of:

(A) between 1 percent and 95 percent by weight based upon the weight of the catalyst of at least one material selected from the group consisting of the metal, oxide or sulfide of molybdenum, tungsten, rhenium, ruthenium and platinum;

(B) between 0.05 percent and 50 percent by weight based upon the weight of the catalyst of at least one material selected from the group consisting of the hydroxide, oxide or salt of lithium, sodium, potassium, rubidium, cesium, magnesium, calcium, strontium, barium and thorium; and

(C) at least 1 percent by weight based upon the weight of the catalyst of a support.