



AN - 82-63575E/30 (63575E)
 XR - API 8216504
 XRAM- C82-E63575
 TI - Alkanol prepn. from synthesis gas - over catalyst comprising ruthenium cpd. and halogen free zirconium or titanium cpd. dispersed in quat. onium cpd.
 DC - E17
 AW - PHOSPHONIUM AMMONIUM ETHANOL $\text{\textcircled{e}}$
 PA - (TEXC) TEXACO INC
 IN - KNIFTON JF
 NP - 15
 PN - US4339545-A 82.07.13 (8230)
 GB2100725-A 83.01.06 (8301)
 BE-893652-A 82.12.27 (8303)
 DE3221610-A 83.01.13 (8304)
 NL8202490-A 83.01.17 (8306)
 FR2508439-A 82.12.31 (8307)
 J58000922-A 83.01.06 (8307) (JP)
 SE8203800-A 83.01.31 (8307)
 BR8203713-A 83.06.21 (8331)
 ES8305294-A 83.07.01 (8334)
 ZA8203323-A 83.08.15 (8347)
 CA1178974-A 84.12.04 (8502)
 GB2100725-B 85.04.17 (8516)
 KR8600448-B 86.04.26 (8646)
 IT1157282-B 87.02.11 (8909)
 LA - E
 PR - 81.06.26 81US-277540
 AP - 82.05.11 82GB-013657
 IC - C07C-027/06 B01J-031/00 C07C-029/15 C07C-031/02 C07C-069/14
 C07C-000/00 C07C-000/00 C07C-000/00
 AB - (US4339545)
 Prepn. of alkanols comprises contacting a mixt. of carbon monoxide and hydrogen at at least 500 psig and at least 180 deg.C with a catalyst comprising (a) a Ru contg. cpd. (I) and (b) a halogen free Ti contg. cpd. or a halogen free Zr contg. cpd. dispersed in a low melting (pref. below 180 deg.C) quat. phosphonium or ammonium base or salt.
 The method gives a prod. rich in ethanol. The catalyst produces alkanols in good yield and with excellent selectivity esp. w.r.t. EtOH formation. (6pp)