

Hydrogenation

1,0-3,0 Tc	Al ₂ O ₃ , MgO, SiO ₂ , ZrO ₂ , Y ₂ O ₃	CO	methane (1), ethane (2), propane (3)	240-360°C, pulse reactor, 1 -main prod., 2,3-traces
1,0-2,0 Tc	Al ₂ O ₃	CO ₂	methane (1), ethane (2)	250-400°C, pulse reactor
1,0-2,0 Tc	Al ₂ O ₃ , MgO, SiO ₂ , ZrO ₂ , rare earth	benzine	cyclohexane	150-300°C, pulse reactor

Decomposition

3,0-5,0 Tc	Al ₂ O ₃ , SiO ₂ , C	hydrazine	NH ₃ , N ₂	40-75°C, boiling layer
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