

## Synthesis of Dimethyl Carbonate from Methanol and Supercritical Carbon Dioxide over Zirconia Catalysts

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The synthesis of dimethyl carbonate (DMC) from methanol and supercritical carbon dioxide has been studied over zirconia catalysts. Various elements such as K, Na, Ca, Mg and Zn were added to the zirconia in order to promote the DMC yield. Special attention has been focused on the effect of the additives. By-products such as dimethyl ether (DME) and C1-C2 hydrocarbons are generally formed in the DMC synthesis reaction. The conditions for the maximum DMC yield and selectivity are being investigated.