

128: 49802p Oxidation of methane and ethane to products containing carbon, hydrogen and oxygen in the presence of metal complexes. Hoehn, Arthur; Suess-Fink, Georg; Shulpin, Georgiy B.; Nizova, Galina V. (BASF A.-G., Germany) **Ger. Offen. DE 19,720,344** (Cl. C07B33/00); 27 Nov 1997, DE Appl. 19,620,892, 23 May 1996; 5 pp. (Ger). CH_4 and C_2H_6 are oxidized with O or H_2O_2 at $20\text{--}100^\circ/5\text{--}100$ bar in a polar solvent in the presence of peroxo complexes of V, Nb, or Ta, e.g., $\text{Bu}_4\text{N}^+[\text{VO}_3/2\text{-pyrazinecarboxylic acid}]^-$. The product compn. may be varied with the reaction temp.