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(54) **Title:** PROCESS FOR THE CARBONYLATION OF DIMETHYL ETHER

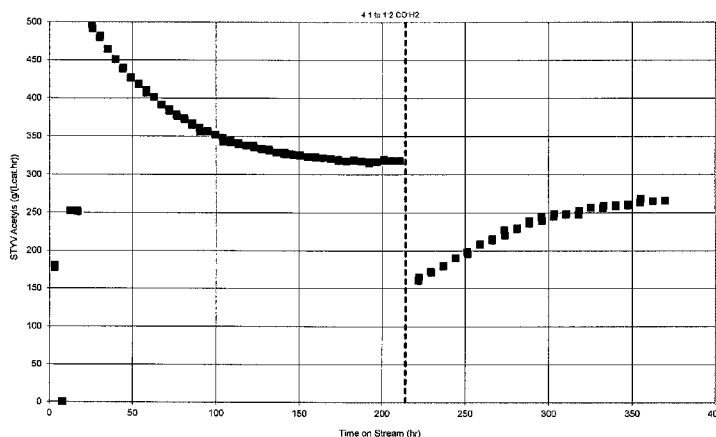


Fig. 1

(57) **Abstract:** A process for preparing methyl acetate by the carbonylation of dimethyl ether with carbon monoxide in the presence of hydrogen and a zeolite catalyst wherein, in a first step the carbonylation is conducted with a carbon monoxide to hydrogen molar ratio of at least 1 and in a second and subsequent step, the carbonylation is conducted with a hydrogen to carbon monoxide molar ratio of greater than 1.