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(54) **Title:** TETRAMERISATION OF ETHYLENE

(57) **Abstract:** A process for the tetramerisation of ethylene under solution phase conditions is carried out in the presence of an activated catalyst at a temperature above 80° C and up to a temperature of about 115°C. The activated catalyst is provided by combining a source of chromium, a diphosphine ligating compound and optionally a catalyst activator or combination of catalyst activators. The process forms at least 30% 1-octene and a polyethylene co-product that, together with any other reaction products, remains substantially dissolved in the liquid phase. The polyethylene co-product has a weight average molecular weight (Mw) of less than 200 000 g/mol, a number average molecular weight (Mn) of less than 3 000 g/mol, and a melt flow index of more than 20 g/10 minutes.

