



ABSTRACT

PROCESS FOR THE PRODUCTION OF MONO-OLEFINS

A process for the production of mono-olefins from a paraffin-containing hydrocarbon feed having at least two carbon atoms which comprises a first step of partially combusting a mixture of the hydrocarbon feed and a molecular oxygen-containing gas in contact with a catalyst capable of supporting combustion beyond the normal fuel rich limit of flammability, the first step being carried out under a total pressure of greater than 5 bar absolute and at a temperature of greater than 650°C; and a second step of cooling the mono-olefinic products to 600°C or less within less than 50 milliseconds of formation.