



ABSTRACT

PROCESS FOR OPERATING EQUILIBRIUM CONTROLLED REACTIONS

A cyclic process for operating an equilibrium controlled reaction in a plurality of reactors containing an admixture of an adsorbent and a reaction catalyst suitable for performing the desired reaction which is operated in a predetermined timed sequence wherein the heating and cooling requirements in a moving reaction mass transfer zone within each reactor are provided by indirect heat exchange with a fluid capable of phase change at temperatures maintained in each reactor during sorption, depressurization, purging and pressurization steps during each process cycle.