



ABSTRACT

In fluid catalytic cracking of oils, the feedstock oil is atomised so that its average particle size relative to the average catalyst particle size is such that most oil particles contacting a catalyst particle will form a film having a thickness substantially less than the boundary layer thickness of the thermal conduction interface between the feedstock oil and the catalyst. A nozzle suitable for producing such atomisation is disclosed. To compensate for reduced formation of coke from the feedstock, and permit riser temperatures to be maintained without overcracking, decant oil or other oil residues containing uncrackable hydrocarbons may be added to the feedstock so as to obtain gasoline fractions having increased octane numbers.



















































