CLAIMS:

1. A process for generating aromatics from a hydrocarbon feedstream, comprising:

passing the hydrocarbon feedstream to a reformer, wherein the reformer is operated at a temperature greater than 540°C, and the internal metal surfaces of the reactor are coated with a non-coking material, thereby generating a process stream comprising aromatics;

passing the process stream to a fractionation unit thereby creating an overhead stream comprising C4 and lighter hydrocarbons, and a bottoms stream comprising C5 and heavier hydrocarbons; and

passing the bottoms stream to an aromatics extraction unit, thereby creating an aromatics process stream, and a raffinate stream.

2. The process of claim 1 wherein the reformer performs dehydrogenation and cyclization reactions.

3. The process of claim 1 wherein the catalyst has a reduced chloride content.

4. The process of claim 1 wherein the space velocity is between 0.6 hr-1 and 10 hr-1.

5. The process of claim 1 wherein the reactor surfaces have been sulfided.

6. The process of claim 1 further comprising using transfer equipment having non-coking coatings or metallurgy, when the transfer equipment is subject to high temperatures.

7. The process of claim 6 wherein the transfer equipment comprises piping.

8. The process of claim 6 wherein the hydrocarbon feedstream is passed through a fired heater prior to the reformer, and the piping has a non-coking coating or metallurgy on the inside pipe wall.

9. A process for the generation of aromatics from a hydrocarbon feedstream comprising

heating the hydrocarbon feedstream to a first temperature;

passing the heated hydrocarbon feedstream to a first reformer, thereby creating a first reformer effluent stream;

heating the first reformer effluent stream to second temperature and passing the heated stream to a second reformer, thereby creating a second reformer effluent stream; and

passing the second reformer effluent stream through a heat exchanger to pre-heat the feedstream.

10. The process of claim 9 wherein the first reformer comprises a plurality of reactors, with inter-reactor heaters, and wherein each reactor has a feedstream, with the feedstream heated to the first temperature by the inter-reactor heaters.

CLAIMS:

1. A process for generating aromatics from a hydrocarbon feedstream, comprising:

passing the hydrocarbon feedstream to a reformer, wherein the reformer is operated at a temperature greater than 540ºC with a catalyst, and the internal metal surfaces of the reformer are coated with a non-coking material, thereby generating a process stream comprising aromatics;

passing the process stream to a fractionation unit thereby creating an overhead stream comprising C4 and lighter hydrocarbons, and a bottoms stream comprising C5 and heavier hydrocarbons; and

passing the bottoms stream to an aromatics extraction unit, thereby creating an aromatics process stream, and a raffinate stream.

2. The process of claim 1 wherein the reformer performs dehydrogenation and cyclization reactions.

3. The process of claim 1 wherein the catalyst has a reduced chloride content.

4. The process of claim 1 wherein the space velocity is between 0.6 hr-1 and 10 hr-1.

5. The process of claim 1 wherein the reactor surfaces have been sulfided.

6. The process of claim 1 further comprising using transfer equipment having non-coking coatings or metallurgy, when the transfer equipment is subject to high temperatures.

7. The process of claim 6 wherein the transfer equipment comprises piping.

8. The process of claim 6 wherein the hydrocarbon feedstream is passed through a fired heater prior to the reformer, and the piping has a non-coking coating or metallurgy on the inside pipe wall.