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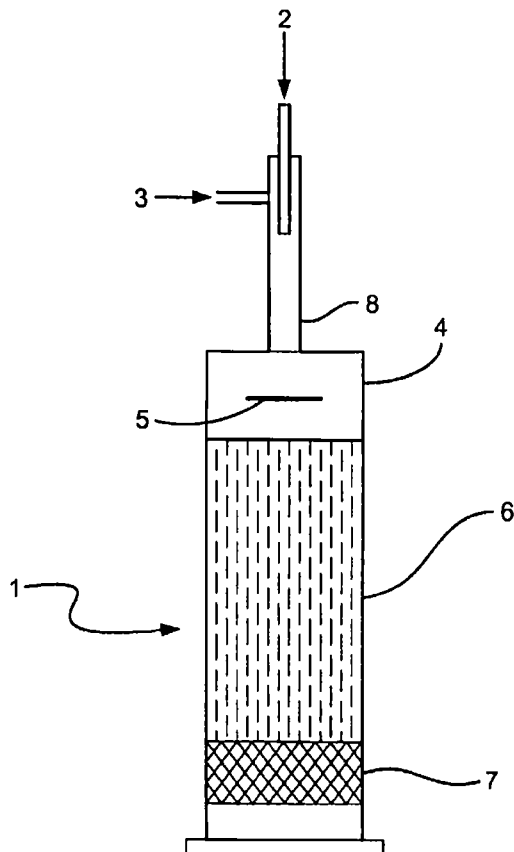
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(54) Title: PROCESS FOR THE CATALYTIC OXIDATION OF HYDROCARBONS



(57) Abstract: A process for the oxidation of a hydrocarbon, said process comprising partially oxidising in a reaction zone, a mixture comprising a hydrocarbon and an oxygen-containing gas in the presence of a catalyst which is capable of supporting oxidation of the hydrocarbon, wherein prior to said partial oxidation, said mixture comprising the hydrocarbon and the oxygen-containing gas is passed through a heat exchanger. Preferably the heat exchanger is a compact heat exchanger. Prior to passage through the heat exchanger a mixture of hydrocarbon and oxygen-containing gas may be passed through a baffle zone which comprises a housing containing at least one baffle plate. In a preferred embodiment, the invention relates to a process for the production of an olefin such as ethylene by the catalytic oxidative dehydrogenation of a hydrocarbon or mixture of hydrocarbons.

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