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(54) Title: HYDROCARBON FUEL PROCESSOR CATALYST

(57) Abstract: A catalyst for use in a hydrocarbon fuel processor for converting, or reforming, a hydrocarbon fuel such as diesel into a simple fuel, most especially hydrogen, comprises a rare earth metal (M) cobalt oxide ($McoO_3$) having the perovskite structure. In one composition the catalyst comprises a solid solution having the perovskite structure of the rare earth metal cobalt oxide, preferably lanthanum cobalt oxide $LaCoO_3$, and an alkaline earth metal cobalt oxide, preferably strontium cobalt oxide $SrCoO_3$. To further enhance the catalytic activity the catalyst can additionally include a noble metal oxide such as platinum or ruthenium.