

Abstract

A process and an apparatus for converting carbon dioxide CO₂ into carbon monoxide CO using hydrocarbons are described. In further embodiments, processes and apparatuses for generating synthesis gas and processes and apparatuses for converting synthesis gas into synthetic functionalised and/or non-functionalised hydrocarbons using CO₂ and hydrocarbons are described. The processes and apparatuses are adapted to convert CO₂ emitted by industrial processes, and thus the amount of carbon dioxide emitted into the atmosphere may be reduced.