

Abstract

Provided are a method and a device with which carbon dioxide is used as a starting material to yield methanol, without requiring high-temperature high-pressure conditions or the addition of hydrogen, and fuel hydrocarbons such as gas oil or heavy oil are produced in a satisfactory yield. The method is a method for increasing the amount of a hydrocarbon oil, characterized by: mixing methanol with water into which air has been bubbled in the presence of a catalyst; mixing the resultant liquid mixture with the feed hydrocarbon oil to produce an emulsion; and contacting this emulsion with a gas or aqueous solution which contains carbon dioxide.