Process Dow.ns Fischer-Tropsch-Savard for biofuel

I chose the name Dow.ns Fischer-Tropsch-Savard for this method of obtaining biofuel for the following reasons:

this method uses magnesium chloride, then transformed into magnesium Mg Cl2 and chlorine, or as there is a process that gets dow magnesium and chlorine from the magnesium chloride, this process is integrated in the process I have described, then the region is defined as follows Downs in my dictionary Larousse 1993;

"lignes de coteaux calcaires du sud du bassin de Londres, qui encadrent la dépression humide du Weald ", " Lines limestone hills of southern basin of London, which surround the depression wet Weald", therefore an area of limestone UK Peter Harrison, and limestone is one of three substance Basic of the process (limestone CaCO3, H2O, magnesium chloride MgCl2), in fact there both lettres .ns (with point) placed against the name Dow is to establish a link with Peter Harrison and United Kingdom where he remains, as I analyzed a very long time its details process published in The Idependant newspaper,

then as I use a little differamment the Fisher-Tropsch process in the overall process, I joined therefore this compound name in to the overall process,

then Savard is my first family name, compound (Savard-Jones) who is on the electoral list of my country, Savard is the name of my father and my mother is Jones, as my little name has a link with Pierre calcaire(in French), limestone(in English) and also Peter, because Pierre is Peter in English.

Concerning the method already given, I perceive that could possibly lower the pressure necessary for methanol CH3OH, I am confident that we could use the pressure air(sea level) instead of 200 bar (or atmosphere) as already indicated, here's why:

I notice the following equation in the French Larousse Encyclopedia :

CO2 + 4 H2 ...> CH4 + 2 H2O , (équa. i), with the nickel oxide as catalyst,

the following equation was probably taken also in French Larousse Encyclopedia:

CH4 + H2O ...> CO + 3 H2 (equa. ii), with nickel as the catalyst and a temperature greater than 500 degrees Celsius,

Conversely if the equation is used ii and nickel oxide as the catalyst, this gives:

CO + 3 H2 ...> CH4 + H2O (equa. iii),

Here is my deduction, as we know that it is possible to obtain methanol CH3OH by oxygenation controlled methane CH4:

CH4 + (1/2) O2 ...> CH3OH (equa. iiii)

then from the equation iii and the equation iiii I deduced that:

CO2 + 3 H2 ...> CH3OH + H2O (equation iiiii), at atmospheric pressure,

a pressure above atmospheric pressure could perhaps improve performance.

Here I will add the process that I had indicated, then add in the references,

the method for obtaining the Dow magnesium and chlorine from magnesium chloride and

details of Peter Harrison process which was published in The Independent Newspaper.

Here i add the prosses tha i had published before:

Biofuel obtained from limestone and water electrolysis magnesium chloride

With all its biofuel carbon is recovered in the air by

through the limestone, its combustion does not contribute to

increase the greenhouse effect

Biofuel obtained limestone magnesium chloride and water.

Biofuels are solutions and energy storage I suggest to get them to use limestone, water and chlorid magnesium:

First, if we take the necessary carbon from CO2 from limestone, this is equivalent to take the CO2 in the air because the CaO remains after heating limestone CaCO3 has the following CO2 emission can capture CO2 in air:

$CaCO_3$ + heat ...> $CaO + CO_2$

$CaO + CO_2$ (from air) ...> $CaCO_3$

Then the hydrogen needed to obtain biofuel, can be first

obtained from electrolysis of molten magnesium chloride $MgCl_2$ (714 degrees Celsius) which gives us magnesium Mg and chlorine Cl_2, such as reaction magnesium with dilute hydrochloric acid gives hydrogen, I suggests to make hydrochloric acid from the reaction of chlorine with steam, using a catalyst as activated carbon, as follows:

$2 H_2O + 2 Cl_2$ ...> $O_2 + 4$ HCl,

therefore also the reaction product of oxygen O_2 in addition to the acid hydrochloric HCl.

The reaction yielding hydrogen is as follows:

$Mg + 2$ HCl ...> $MgCl_2 + H_2$,

Note that the limestone $CaCO_3$ and magnesium chloride $MgCl_2$ are constantly recycled and we still need the same amount that Initially.

For our biofuel, in addition to hydrogen, it takes methanol and to obtain this, I suggest to react 3 mole dihydrogen H2 with CO2 from limestone, first mole hydrogen transform CO2 into CO and H2O, as follows:

CO2 + H2 ...> CO + H2O,

must then be reacted with two moles of hydrogen to one mole CO for methanol CH3OH, do not forget to use a catalyst (zinc oxide, copper oxide and chromium) in a temperature of 200 degrees Celsius and a pressure of about 200 atmosphere, this reaction here:

CO + 2 H2 ...> CH3OH,

if reacting one mole of methanol with one mole of hydrogen is methane obtained as follows:

CH3OH + H2 ...> CH4 + H2O,

if you want to get a heavier biofuel, must be reacted many moles of methanol with one mole of hydrogen, for example for ethane (2 carbon chains) must be reacting two moles of methanol with one mole of hydrogen, for propane (3 chains carbone) there should be 3 moles of methanol with one mole of dihydrogen, for butane (4 carbon chains) must be reacting 4 moles of methanol with one mole of hydrogen, so here is a example for butane:

4 CH3OH + H2 ...> C4H10 + 4 H2O,

also note that we can add two different alcohols for an alcohol heavier and the reaction with the hydrogen removed the alcohol function, take the example of the addition of methanol with ethanol, this give propanol and water:

CH3OH + C2H5OH ...> C3H7OH + H2O,

then if we add one mole of hydrogen with one mole of propanol we obtain a mole of propane and one mole of water as follows:

C3H7OH + H2 ...> C3H8 + H2O,

Gasoline is a mixture of heptane and octane C7H16 C8H18, oil or diesel or heating oil is represented by C18H38,

kerosene is intermediate between gasoline and diesel.

The Fischer-Tropsch process uses CO with dihydrogen, here I used the CO2 with hydrogen.

Reference:

Fischer-Tropsch process

The method for obtaining the Dow magnesium and chlorine from magnesium chlorine

Details of Peter Harrison process wich was published in the Independant Newspaper

French Larousse Encyclopedis

Chemistry book has the use of secondary courses:

Title: Chimie générale,

Authors: Omer Bastien, B.Sc.

Benoit Ladouceur, D.Sc. Benoit Ladouceur, D.Sc.

Hubert Laniel, M.Sc. Hubert Laniel, M.Sc.

revised edition, 1969

Beauchemin limited library

450, avenue Beaumont, Montréal 1969

Chemistry book has the use of college course:

Title: Chimie 1

2.Les familles chimiques

Authors: M. Tournier Author: M. Tournier

professor at the College de Maisonneuve

Centre Educatif et Culturel Inc.

8101, boul. 8101, boul. Métropolitain, Montréal ., H1J 1J9 .

First discussion:

Forum AstroClick Section: Technology and inventions, new ideas ...

title: Des ingénieurs transforment l'air en pétrole, (Engineers transform air oil link):

http://abcd.vosforums.com/des-ingenieurs-transforment-l-air-en-petrole-t9570.html