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RESEARCH ARTICLE

Environmental Problem Solution

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Abstract

We describe herein our corporate experience of use of both carbon negative the gasoline replacement fuel isobutanol and the diesel fuel replacement fuel diacetyl alcohol in the engines of the sacrificed for this test corporate cars 2020 Toyota Camry and 2020 Porshe Cayenne Turbo (gasoline replacement) and 2020 Shevrolet Silverado 1500 (diesel fuel replacement). Gasoline fuel replacements were used for 20,000 miles and the diesel fuel replacement was used for 10,000 miles. The certified mechanics invited from the respective cars dealerships did not find no any deviations in said cars performance and no any gaskets leaks creating further problems in said cars. We suggest that our carbon negative gasoline and diesel fuel replacements will replace initially the gasoline and the diesel fuel nationwide and then world-wide.

1 | INTRODUCTION

We presently are in the desperate need to find the good our corporate investment opportunity to invest in our own gasoline stations to sell the fuel isobutanol and the fuel diactetyl alcohol as the replacements of the gasoline and the diesel fuel both originating from petroleum distillation, respectively. The refineries, 80 petroleum refineries in the Continental US, producing a lot of air CO_2 as the mandatory byproduct of petroleum distillation, the petroleum distillation on the petroleum fractions with different content of the carbohydrate molecules C_7 to C_9 for the manufacture of gasoline and C_{10}-C_{15} for the diesel fuel manufacture there is the now mandatory need to find the replacements of the gasoline and the diesel fuel from said petroleum distillation. With the petroleum-based gasoline and diesel fuel there is always the problem of polluting the environment during the petroleum distillation process, necessary to get the fractions of petroleum originated gasoline and petroleum originated diesel fuel, and more the air CO_2 contamination during burning of said gasoline and diesel fuel. Even NASA in 2010 after bombarding the Earth satellite Moon and finding ice on the dark Moon surface stated that the Earth has passed the point of no return to the natural environmental conditions of the pre petroleum use era of the year 1900 [1]. Using of gasoline or diesel fuel emits even more air CO_2. You remember the US families where each kid at the age 16 wants to

have their own car despite he or she has brothers or sisters. In 2010 NASA has claimed that our planet Earth has reached the point of no return because the air CO2 level has reached in 2010 the mark of 400 ppm. Now it is above 450 ppm and growing above that. What specifically the air CO_2 does to the environment? The CO_2 is among the heaviest gases of the air blend, reaching its density of 1.997 g/m^3. As such, the air CO_2 under no wind conditions spreads on the ground surface. CO_2 is known as the natural absorbent of the Solar infrared energy. Distributing over the ground CO_2 gets very hot due to the Solar infra red energy adsorption and heats the ground. It has been noted, that in the Southern US the ground temperature might exceed the water boiling temperature under the normal atmospheric pressure conditions. The ground is the main refuge for all the fresh water: water coming from rains and water coming from melting snow and ice. From the ground where it is collected the fresh water goes under the constant Earth gravity to feel streams, rivers and lakes. If the fresh water gets boiled in the ground, then less fresh water goes to the rivers and lakes. Not only boiling leads to the fresh water evaporation under the constant Earth gravity force [1] This is the huge current environmental problem, identified by NASA in 2010 and noted by the Author of this article in the year of 2000, when he worked at Celanese Chemicals dealing with the acetic action production by the microorganisms Actetogens who are the major air CO2 absorbers to produce acetate via the acetyl-CoA pathway [1].

The Fig. 1 shows the effect of air CO_2 on the Earth environment.

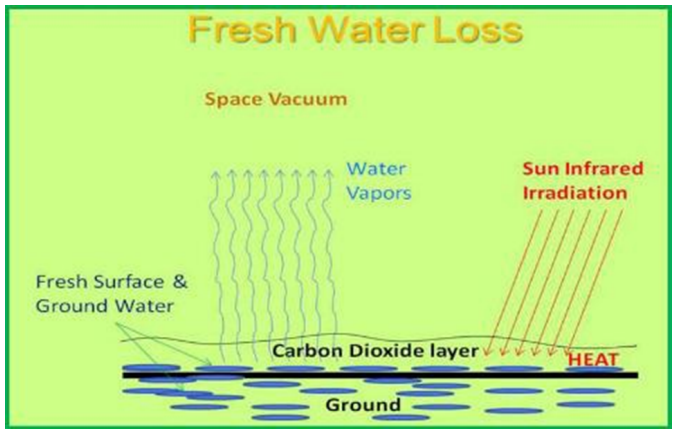

Fig. 1. The negative environmental effect of the increased air CO_2 content [1].

Evaporated fresh water gets in the Earth atmosphere, and from the Earth atmosphere comes to the Space vacuum surrounding our planet. In 2010 NASA has found fresh water frozen as ice on the dark Moon surface. We might need to remind the readers that Moon is located in 220,000 miles away from Earth surface. So, the Universe vacuum sucks fresh water from Earth indefinitely and the dark surface of the Moon worked as the vacuum trap for said fresh water vapors from the Earth. We on the Earth produce the air CO_2, more and more every year, facilitating the loss of the fresh Water to the outer Space.

The most advanced Earth venture capitalists already have started testing of the new Space travel technology intended for the search of the new planets for the relocation of the overcrowded Earth population as the practical solution of the outlined above environmental problem Earth faces currently. However, despite of the venture capitalist investments, the level of the technology used still does not allow the construction of the efficient outer Space transportation vehicles.

We are herein, on the planet Earth, and we develop the carbon negative technologies of gasoline and diesel fuel manufacture from the concentrated air CO_2. We have already developed Acetogens-biocatalysts for the efficient continuous fermentation of the gas blends composed from the concentrated air CO_2 and Nitrogen, also present in the atmospheric air for above 70 %. The third component of said gas

Supplementary information The online version of this article (https://doi.org/xx.xxx/xxx.xx) contains supplementary material, which is available to authorized users.

blend is Hydrogen, H_2. We have postulated our environmentally free mission to produce the hydrogen by the sea water distillation using the free electricity obtained using the modern solar panels [5-7]. The Equator area is the best for the solar energy collection using the solar panels. The level of Solar irradiation at the Equator area exceeding 11,000 miles around the Earth, is 1,330 Wt/m^2 of solar panels/hour. Basically, we are thinking of growing the separate line of the private investment to organize the manufacture of the Solar panel boats, then distributed in the Ocean around the Equator. We are still in the process of determining how much that will cost to produce a particular Solar panel boat, as it has to distill the sea water 24/7/365. Said floating Solar panel boats with the sea water distillation capability have to have the alkaline batteries currently available in the multitude at the disposing the used submarines shipyards in the USA. Due to the restricted nature of said shipyards information, the process is somewhat complicated, but we are inspired by our direct desire and our corporate mission to establish the reliable network of floating sea water distillers, packing said distilled sea water in the regular water bottles for the selling to the Earth customers. This is the second major solution of the environmental problem the overcrowded Earth currently has, beyond the relocation of the Humankind to the other planets. The relocation is great but has multiple problems not only related to the Spacecraft creation but also to the potential danger of the new planets environment for the relocating people. We are working also in this direction trying to create *de novo* the ways to distribute the recombinant vaccine proteins in the human bodies [13]. Unfortunately current technologies used by the gene transfer corporations do not allow the health safe systems for the recombinant protein distribution to the human bodies [2-4]. Our publication shows this our intent acting in the form of the publication of the peer reviewed articles instead of filing the US patents due to the limits we do currently have with the investor funding [2-7].

If the author may come back to his fuel isobutanol as the carbon negative gasoline replacement, the network of the biochemical reactions leading from the atmospheric CO_2 and the atmospheric nitrogen to the fuel isobutanol is the following, as shown in Fig. 2. We also have used the hydrogen obtained by the solar power distillation of the freely available sea water of the Mexican Gulf. The manufacturing cost of the fuel isobutanol in our hands was $0.35 per gallon of product.

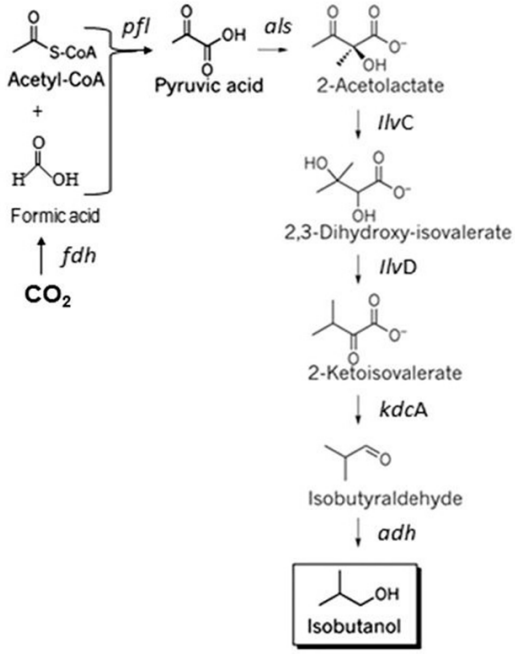

Fig. 2. Fuel Isobutanol produced from the air with the addition of hydrogen obtained via solar panels powered electrolysis of the sea water [1].

Let's go to the fuels section of this article. Isobutanol fuel as the carbon negative gasoline replacement was used in the gasoline engines of our corporation freely subjected to this fuel tests. Since n-butanol became the fuel gasoline replacement of the future [12]. Fuel Isobutanol was also recommended as the part of the fuel mixture for the airjet turbines by the Gevo Inc. [8]. In the field of fuel butanol isomers our current competitors include only Butamax (DuPont enterprise). In the field of the existing gasoline market (over $1 trillion) or competitors are all international petroleum corporations like SHELL, BP, etc. We offer herein our carbon negative fuel isobutanol manufactured from the air CO_2 for only $0.35 per gallon. We describe in this article our corporate experience of use of both carbon negative the gasoline replacement fuel isobutanol and

the diesel fuel replacement fuel diacetyl alcohol in the engines of the sacrificed for this test corporate cars 2020 Toyota Camry and 2020 Porshe Cayenne Turbo (gasoline replacement, 20,000 for each said vehicle) and the diesel fuel replacement fuel diactyl alcohol tested was the sacrificed by our corporations 2020 Shevrolet Silverado 1500 (10,000 miles for the last cartesting).. We are not in the position to disrupt the fuel market structure at this point of our corporate funding, and at the price ranks we facing currently we are not going to do so. To stay herein on the existing fuel market with our carbon negative gasoline replacement the fuel Isoburanol we offer the free foods for the amount of the fuel isobutanol purchase to every customer at our future gasoline stations. This way we plan to be very profitable. Remember, the Author was almost killed for his intent to commercialize his fuel isobutanol manufacture technology at the international corporation ******, and after that, with the Houston Police report of not guilty for said the Author's corporate car totaling by the Toyota Tundra truck in Houston TEXAS, which has crossed the Club Creek drive where the Author drove straight the Author could not get any feedback from the Houston FBI for the investigation of his attempted murder as it stands now in 2021, however the statute of limitations for the attempted murder in the USA is 20 years. The only drawback of the fuel isobutanol is the increase of its viscosity in the fuel line at negative surrounding air temperatures. To overcome this shortcoming of the fuel isobutanol for its use at the low temperatures we offer it not in the pure form as it has been suggested before [8], but as the mixture with the gasoline at the ratio 80% fuel isobutanol and 20% of gasoline. Of course, in the Southern States of the USA the 100% fuel isobutanol can and has to be used with no problems due to its higher viscosity at the low air temperatures almost around the year long: from February-March through the end of November. During short winter time we offer for sale the gasoline fuel isobutanol/gasoline mixture as described above.

Now, let's go back to the carbon negative manufacture of the carbon negative diesel fuel manufacture. The Author has invented and published in the peer-reviewed journal and herein distributes his technology of the diesel fuel manufacture from the air CO_2 [8]. Basically the biochemical network of the related to the carbon negative manufacture of the carbon negative diesel fuel is as shown in the Fig. 3.

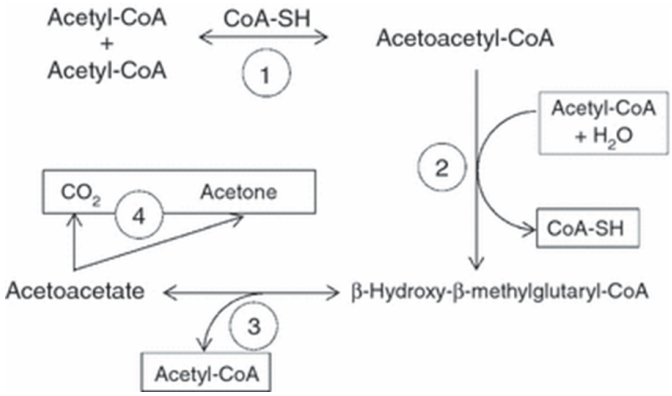

Fig. 3. Shematic network of the biochemical reactions of the acetone production from air CO_2[10]. The produced acetone was condensed to the diacetyl alcohol per the US Patent US1550792A [11].

The manufacturing cost of 1 gallon of the carbon negative fuel diactetyl alcohol is only $0.37 while Shell, BP and other petroleum corporations spend over $1.70 per diesel fuel gallon manufacture at the petroleum refineries {1}. The Author describes herein the results of his personal use of the fuel diacetyl alcohol solely in his corporate 2020 Shevrolet Silverado 1500 truck with no attempts to convey said personal experience on the other makes of the diesel fuel trucks and other diesel fuel engines. Over the 10,000 miles run, the 2020 Shevrolet Silverado 1500 truck mileage was achieved on the highway at the average mileage ~35 mpg, and at ~24 mpg driving in the city. That was the new 2020 corporate Shevrolet Silverado 1500 truck with the diesel engine. With the older models of the diesel trucks these numbers will be most likely lower. We did not notice no side effect of using the diacetyl alcohol instead of the regular diesel fuel as the diesel truck engine and the truck was checked by the Chevrolet mechanic, with the only exception that we had to keep in memory the need to feel the truck with the fuel only at the corporate territory, not at the regular gas station. Probably, at this point we will offer the fuel diacetyl alcohol to the local gas stations as the fuel for the diesel

engines or will have our own carbon negative diesel fuel stations around the Nation.. However, they will have to test all the safety parameters of storage of this fuel on the station and the details of its use by the customers if anything unusual comes up. If we are successful in all said tests, the satisfactory results will go for the National/World's implementation of our new diesel fuel and to the new gasoline stations, selling only diacetyl alcohol to customers as the diesel fuel at the same sales cost, as there is no our intent to disrupt the fuel market by the sudden decrease of the fuel prices. Again, in this case we will offer to the customers purchased our carbon negative diactetyl alcohol the food for the amount they spent on the diesel fuel. .Our major concern herein is related to the use of our gasoline and the diesel fuel replacements to help the air jet aviation to help to fight the air CO_2 production. We are not aware of any competition on the carbon negative diesel fuel market at this time, but the market competition will be with the major international petroleum corporations like Shell, BP and others.

2 | DECLARATIONS:

Ethical Approval and Consent to Participate. This article does not contain any section, requiring Ethical Approval. The only Author of this article is complied this section with the Consent to Participate. Consent to Participate. The Author complied with the consent to publish this article.

Consent to Publish. The Author complied with the Consent to Publish this original article. Authors Contribution. Dr. Michael V. Tyurin has planned all the experimental work, conducted all the experiments, analyzed the experimental data, wrote this original manuscript, edited ot as appropriate and submitted for this publication the edited original manuscript. FUNDING was done by the private investors, who declined to provide their names and their business affiliations. The investors noted, the author should decline any source of funding. Competing Interests. The Author does not have any competing interests with any third party. The author declares his personal conflict of interests with the law firm in Houston, TX Hirsch and Westheimer, which has destroyed his corporate website http:syngasbiofuelsenergy.com, and with the major petroleum and gasoline/diesel fuel companies in Houston (TX), with the Houston Police (City of Houston) and with the Houston FBI ignoring the Author's concern about his attempted murder committed by SHELL after the Author has presented to SHELL his proprietary technology for gasoline manufacture from the air CO2, not from petroleum (Tyurin MV, et al. 2019) The attempted murder is of no interest for the corrupt by the major petroleum corporations in Houston, TX Houston FBI. The Author has no intent to file the lawsuit against the Houston FBI at any point, but he is inclined to make this case the public domain. Houston FBI does not follow the established in the USA Federal Laws. Availability of data and materials, All the data and materials are available if necessary from the Author of this manuscript.

Authors' information The Author is the owner of his mentioned TEXAS businesses Microbial Biocatalyst International, Inc. and Inorgcarbdiesel, Inc. The work has been done at the corporate site with the USPS address P. O. Box 300230, Houston, TX 77230.

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