

Waste conversion to jet fuel

Introduction:

Airplanes are the fundamental part of modern human civilization. They provide mass scales of transport in minimum times span and reduce the amount of fuel and supplies needed to sustain people during long journeys. They also provide transport to essential items around the world in vast distances. Despite providing faster transportation, a plane consumes enough fuel to keep a car going on for years. With the number of flights around the world daily and growing demand with the growing human population, the consumption of jet fuel makes it a very costly industry.

Expansion of concept:

With the increase in human population and resource consumption comes a growth in transportation to meet trade and travel demands. Transportation for business as well as pleasure is an industry, providing jobs for millions of people around the world.

As the human population grows, the demand for more resource consumption increases. This results in more amounts of fuel for transport being consumed and also contributes to larger amounts of both solid and gas waste, which has become an environmental concern. On the long run, it is not considered sustainable.

There is also the pressing issue of humanity approaching peak oil, or the most amount of oil humanity will use before this usage goes into decline.

What is happening in the world regarding this issue:

Seeing the economic and environmental consequences of such large amounts of fuel being consumed for transportation as well as environmental concerns about the contribution of CO₂ to global warming, major aircraft manufacturers have resorted to producing more fuel efficient and less pollutive aircraft for their customers. This reduces the cost of fuel by a percentage or a fraction of it's consumption depending on the aircraft. This also results in a fraction of lower CO₂ emission. Some examples of these are the production of the Airbus 350 series by Airbus which are claimed to emit about 2/3rds the amount of CO₂ than previous wide-body Airbus aircraft. It's rival aircraft, the upcoming Boeing 777x, which is claimed to save the amount of fuel consumption. This plane is also claimed to produce a lower percentage of CO₂ as a result.

However, there is still the issue of declining fuel resources. There is also the issue of massive solid waste as a result of industrialization. To curb this issue and help keep more fuel on reserve, governments and organizations are seeking to convert solid waste into fuel.

Conclusion:

Because of limited current technological abilities and financial burdens on converting solid waste into fuel, the practice itself remains limited.