

Sustainable Aviation Fuel

Vitali devrisashvili

E-mail: vitali.devrisashvili106@ens.tsu.edu.ge

Chemistry, Faculty of exact and natural sciences, Iv. Javakishvili Tbilisi State University

Sustainable Aviation Fuel (SAF) is one of the biggest challenges in the oil industry today, as it is an alternative to traditional, fossil-based aviation fuel and beyond. It can be produced from biomass and is chemically very similar to traditional fossil jet fuel. The use of SAF results in reduced carbon emissions compared to traditional jet fuel. It can be produced using some typical feedstocks, which in turn include cooking oils and other waste animal and vegetable fats, household solid waste, packaging materials, paper, textiles and food waste. Other potential sources include forestry residues such as waste wood and energy crops, including fast-growing plants and algae. For example, Air BP's SAF is currently produced from used cooking oil and waste animal fats. All of this is of great interest to various oil exploration and refining companies, because as oil reserves are depleted, interest in alternative sources of oil is growing every day. The sustainable aviation fuel (SAF) market is experiencing unprecedented growth as nations across the globe commit to achieving net zero carbon emissions in air travel by 2050. This ambitious goal is driving the expansion of SAF fuels at an impressive rate of 72.4% annual growth within the \$239.9 billion aviation fuel sector. As environmental concerns become increasingly urgent, the demand for cleaner, eco-friendly alternatives to traditional jet fuel continues to surge.[1]

[1] https://www.avioxx.co.uk/?gad_source=1&gbraid=0AAAAAqg77woKc-K6RjewVT5VXw2OVjTcD&gclid=CjwKCAiAtNK8BhBBEiwA8wVt95oYvj9pIUgJSwX1Hp7xrCZOVgBVcq7lg64VD3ic_t2xSPxTGVFZ2RoC1y8QAvD_BwE