

# GLOSSARY

A	
ABNT	"Brazilian Association of Technical Standards".
ABRABA	"Brazilian Alliance for Aviation Biofuels".
ACA	"ACA Associates". The new name for Airline Capital Associates, Inc. Company working on consulting and financial advisory, specialize in the commercial aviation industry, which includes manufacturers, airlines, airports, after-market support companies, and ground service companies.
AIAB	"Aerospace Industries Association of Brazil". National trade association that represents the Brazilian aerospace industries.
Alternative fuels	Non-conventional fuels (including biofuels such as biodiesel or ethanol, hydrogen, electricity-storing batteries, fuel cells), often with improved environmental footprints, that are derived from non-petroleum sources.
Amyris	Integrated renewable products company providing sustainable alternatives to a broad range of petroleum-sourced products.
ANAC	"National Civil Aviation Agency" (Brazil)
Andritz	Company working on supplying of plants and services for the hydropower, pulp and paper, metals, and other specialized industries.
ANFAVEA	"Brazilian Automotive Industry Association"
ANP	"Brazilian National Agency of Petroleum, Natural Gas and Biofuels".
ANTAQ	"National Agency for Waterway Transportation" (Brazil)
ANTT	"National Transportation Agency" (Brazil)
APTA	"Agência Paulista de Tecnologia dos Agronegócios" from São Paulo State Government.
APTTA	"Associação Portuguesa de Transporte e Tráfego Aéreo"
ARS	"Agriculture Research Service".
ASTM International	Originally known as the American Society for Testing and Materials (ASTM). A voluntary standards development organizations. ASTM International specifications are used for the certification of jet fuel.
AZUL	Brazilian airline company.
B	
Barrel of Oil Equivalent	A term used to summarize the amount of energy that is equivalent to the amount of energy found in a barrel of crude oil. Also known as Crude Oil Equivalent.
BASF	German private company working on chemicals.
BAYER	German private company working on chemicals and pharmaceuticals.
Bioeca	Company working on producing sustainable raw materials for biofuels (second generation), mainly aviation bio-kerosene.
Biofuel	Renewable fuels derived from biological materials that can be regenerated. This distinguishes them from fossil fuels, which are considered nonrenewable. Examples of biofuels for ground transport are ethanol, methanol, and biodiesel. Biofuels compatible with aviation can include Fischer-Tropsch or hydrotreated jet fuel made from plant or animal sources or hydrocarbons synthesized by genetically modified organisms (synthetic biology).

Byogy Renewables	Company working on producing advanced biofuels, namely jet fuel and gasoline from any source of bio ethanol.
Biomass	Biomass is any mass that has been produced by the growth and resource use of living organisms; therefore any plant, animal, or bacterial material is biomass (e.g., leaves, wood chips, algae).
Bio-oil	Liquid product obtained in fast pyrolysis or solvent liquefaction of biomass. Bio-oils contain large amounts of oxygen and needs up-grading.
Bio-char	Solid product obtained in fast pyrolysis or solvent liquefaction of biomass. Bio-char has a high carbon content and can be used as active carbon or for soil refinement or for gasification.
BNDES	"Brazilian Development Bank" (Brazilian bank).
BOE	"Barrel of Oil Equivalent".
BOEING	The Boeing Company, a global aerospace and defense company that manufactures commercial jetliners and defense, space and security systems.
BTL	Biomass to Liquid (BTL) is the process to produce liquid biofuels from biomass, usually referring to gasification and Fischer-Tropsch (FT) synthesis.
<b>C</b>	
CAAFI	"Commercial Aviation Alternative Fuels Initiative"
Camelina Company	American private company working on manufacturing and marketing of fuel and chemicals from Camelina
CANAVALIS	Brazilian private company working on genetic breeding research for sugarcane and sorghum
Carbon capture and sequestration	A process of capturing carbon dioxide emissions to prevent them from going into the atmosphere, and then storing them permanently. A commonly discussed strategy is to store captured CO <sub>2</sub> by pumping it underground into geological formations. There are also discussion of biological capture and sequestration in trees, algae etc. In both cases "permanency" of solution is yet to be proven.
Carbon dioxide	Enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Carbon neutral growth	An industry, sector, or company continues to expand its activities without further increases in greenhouse gas emission.
Catalysis	The process in which the rate of a chemical reaction is either increased or decreased by means of a chemical substance.
Catalyst	A substance that increases the rate of a chemical reaction without itself undergoing any change.
Cellulose	The structural component of the primary cell wall of green plants, many forms of algae and the oomycetes. It is made up of cross-linked sugar molecules and is very difficult to break down. A "cellulosic" biofuel production process would degrade cellulose sufficiently to make the sugars accessible for further processing.
CENBIO	"Brazilian Reference Center on Biomass".
CEPID	"Research, Innovation and Dissemination Centers" (Fapesp Research Program).
Certification	Refers to the confirmation of certain characteristics of an object, person, or organization.
CH <sub>4</sub>	"Methane".

CIAT	"International Center for Tropical Agriculture"
CLEEN	"Continuous Low Energy Emissions and Noise".
CNT	"National Confederation of Transportation"
CO	"Carbon monoxide".
CO <sub>2</sub>	"Carbon dioxide".
Coal to Liquid (fuels)	A process referred to as coal liquefaction – allows coal to be utilized as an alternative to oil. There are two different methods for converting coal into liquid fuels:
	Direct liquefaction works by dissolving the coal in a solvent at high temperature and pressure. This process is highly efficient, but the liquid products require further refining to achieve high grade fuel characteristics.
	Indirect liquefaction gasifies the coal to form a 'syngas' (a mixture of hydrogen and carbon monoxide). The syngas is then condensed over a catalyst – the 'Fischer-Tropsch' process – to produce high quality, ultra-clean products.
Coal/Biomass to Liquid (fuels)	A process by which coal and biomass are turned into synthetic hydrocarbons, often via Fischer-Tropsch synthesis.
Continuous Low Energy Emissions and Noise	Program to develop and foster industry acceptance of new technologies that reduce environmental impacts.
Crack Spread	The difference between crude oil and refined petroleum product prices, when expressed in similar units, is known as the crack spread. For example, if crude oil costs \$60 per barrel and jet fuel costs \$75 per barrel, the jet fuel crack spread is \$15 per barrel.
Cracking (of fuel)	Term used in the oil refining industry, meaning to "crack" crude oil, which is to break down the long-chain hydrocarbons in the crude oil into shorter chains. Also used with regard to the breaking of long-chain fatty acid derivatives (usually C18-C22) or synthetic waxes (e.g., from Fischer-Tropsch) to the jet fuel range (C8-C14).
Crude oil	A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. The U.S. benchmark for crude oil prices is West Texas Intermediate (WTI), measured in Cushing, Oklahoma.
Crude Oil Equivalent	A term used to summarize the amount of energy that is equivalent to the amount of energy found in a barrel of crude oil. Also known as Barrel of Oil Equivalent.
CSIRO	"Commonwealth Scientific and Industrial Research Organization".
CTBE	"Brazilian Bioethanol Science and Technology Laboratory".
CTC	"Sugarcane Research Center".
CTL	"Coal to Liquid".
<b>D</b>	
DCTA	"Department of Aerospace Science and Technology (Brazilian Ministry of Defense)
DEDINI	Brazilian private company working on equipment development and supply of complete sugarcane plants (sugarcane mills).
Drop-in jet biofuel	A substitute for conventional jet fuel, that is completely interchangeable and compatible with conventional jet fuel. It can be a neat biofuel or a blend of biofuel and conventional fuel according to ASTM specifications. A drop-in biofuel does not require adaptation of the aircraft/engine fuel system or the fuel distribution network, and can be used "as is" on currently flying turbine-powered aircraft.

E	
EMBRAER	Brazilian private company working on aircraft manufacturer and systems for defense and security segments
EMBRAPA	"Brazilian Agricultural Research Corporation".
EMBRAPA ALGODÃO	"Brazilian Agricultural Research Corporation – Cotton Center".
EMBRAPA BIOENERGY	"Brazilian Agricultural Research Corporation – Bioenergy Center".
EMBRAPA SOJA	"Brazilian Agricultural Research Corporation – Soybean Center".
EPAGRI	"Empresa de Pesquisa Agropecuária e Extensão Rural de Santa Catarina" from Santa Catarina State Government.
EPE	"Brazilian Enterprise for Energy Research"
EPFL	"École Polytechnique Fédérale de Lausanne"
EPUSP	"Polytechnic School of University of São Paulo"
Ergostech	Brazilian company working on renewable energy solutions.
ESALQ	"Luiz de Queiroz College of Agriculture" from USP.
ESALQ-LOG	"Group of Research and Extension in Agroindustrial Logistics" from ESALQ
EtOH	The molecular formula for Ethanol is $C_2H_5OH$ . Ethanol is often abbreviated as EtOH, using the common organic chemistry notation of representing the ethyl group ( $C_2H_5$ ) with Et and the Hydroxyl group with OH. Ethanol is a product of fermentation. However, it is not compatible with existing turbine-powered aircraft or infrastructure.
F	
FAME	"Fatty Acid Methyl Ester"
FAPEMIG	"Minas Gerais State Research Foundation" from Minas Gerais State Government.
FAPESP	"São Paulo Research Foundation" from São Paulo State Government.
Fast pyrolysis	Pyrolysis with high heating rate, normally done in a fluidized bed.
Fatty Acid Methyl Ester	More commonly referred to as biodiesel. This is traditional biodiesel, produced by processing raw vegetable oil or animal fats through a chemical process called transesterification. While it is used in diesel surface vehicles, FAME is not considered a suitable "drop in" fuel for jet aircraft.
Fatty acids	Organic acids from which fats and oils are made. These can be used as feedstocks for HRJ fuels.
FBO	"Fixed-Based Operator".
FEA	"School of Food Engineering" from UNICAMP.
FEAGRI	"School of Agricultural Engineering" from UNICAMP.
Feedstock	Raw material required for an industrial process and more specifically for the production of an alternative fuel.
FEQ	"School of Chemical Engineering" from UNICAMP.
Fermentation	Any of a group of chemical reactions induced by living or nonliving ferments that split complex organic compounds into relatively simple substances. Often used to refer to sugar processing by microorganisms to form ethanol or, in the case of advanced fermentation, hydrocarbons or other synthetic chemicals.

Fermentec	Brazilian private company working on innovation, development technologies and consulting services for the production of sugar, ethanol and energy for bioenergy plants and distilleries.
Fermented Renewable Jet	A biofuel created by a synthetic biology process in which metabolic processes involved in fermentation have been co-opted by genetically modifying organisms to produce hydrocarbons in place of ethanol.
FIEMG	"Federation of Industries of Minas Gerais"
FINEP	"Study and Project Finance Agency" from MCTI.
Fischer-Tropsch	Is a catalyzed chemical reaction in which synthesis gas, a mixture of carbon monoxide and hydrogen, is converted into liquid hydrocarbons of various forms. Named for German researchers Franz Fischer and Hans Tropsch.
Fixed-Based Operator	The primary provider of services to general aviation aircraft and operators located at or adjacent to an airport. General aviation refers to all flights other than military and scheduled airline and regular cargo flights, both private and commercial.
Fluorinated Gases	Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").
Fossil Fuels	Any naturally occurring organic fuel formed in the Earth's crust, such as petroleum, coal and natural gas. Formed by fossilization of organic material deposited by decaying plant/animal matter.
FRJ	"Fermented Renewable Jet".
FRL	"Fuel Readiness Level". A scale developed by CAAFI that provides a way to objectively measure how close a particular alternative fuel or feedstock is to successful deployment for jet fuel production.
FSA	"Fuel Supply Agreement".
FT Fuel	Fuel produced by the Fischer-Tropsch method.
FT Process	Fischer-Tropsch.
Fuel Farm	Holding place where fuel resides.
Fuel supply agreement	A document that contains details on an agreement between a seller and buyer for a commitment to sell and to purchase fuel. The agreement will contain name of buyer, the seller, term, product specification, volume, price, payment terms, delivery points, contacts and any other terms and conditions related to the transaction.
FUPEF	See "Forest Research Foundation of Parana".
<b>G</b>	
Gasification	It is a manufacturing process that converts any material containing carbon—such as coal, petroleum coke (petcoke), or biomass—into synthesis gas (syngas).
GE/GRC	"General Electric Company – Global Research Center"
General aviation	A term used to describe all non-military and non-airline flying, encompassing everything from recreational aircraft to experimental aircraft to privately owned and operated business jets. General aviation flies according to FAA's part 91 or 135 rules.
GHG	Greenhouse Gases
GIS	Geographic Information System

Global warming potential	The cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas. Used to compare different green-house-gases with each other on a relative basis.
GOL	Brazilian air transport company.
GPS	Global Positioning System
Greenhouse gases (GHG)	Gases that trap heat in the atmosphere. The principal greenhouse gases that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide and fluorinated gases.
GWP	"global warming potential".
<b>H</b>	
H <sub>2</sub> O	Water (solid, liquid or vapor).
HAPs	See "hazardous air pollutants"
Hazardous air pollutants	Defined in the Clean Air Act (1990) as air pollutants that are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects. The list of pollutants is available online and comprises approximately 200 individual compounds.
HEFA	Hydroprocessing of Esters and Fatty Acids
HRJ	Hydrotreated Renewable Jet fuel.
HCVA	High Conservation Value Area
Hydrocarbons	Substances containing only hydrogen and carbon. Fossil fuels are made up of hydrocarbons. As are synthetic drop-in jet fuels.
Hydroprocessing	Any of several chemical engineering processes including hydrogenation, hydrocracking and hydrotreating, especially as part of oil refining.
Hydrotreating	Process that removes sulfur and nitrogen in petroleum refineries to improve the quality of gasoline, jet fuels and diesel fuel.
<b>I</b>	
IAC	"Agronomic Institute of Campinas" from São Paulo State Government.
IAPAR	"Agronomic Institute of Parana" from Paraná State Government.
IATA	"International Air Transport Association"
IB	"Biology Institute" from Unicamp.
IBGE	"Brazilian Institute of Geography and Statistics" from Federal Government
ICAO	"International Civil Aviation Organization".
ICONE	"Institute for International Trade Negotiations".
ICT	Information and Communication Technologies
IFAD	"International Fund for Agricultural Development "
INPE	"National Institute for Space Research" (Brazil)
Intergovernmental Panel on Climate Change	The leading body for the assessment of climate change, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide the world with a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences.
IPCC	"Intergovernmental Panel on Climate Change".
IQ	"Institute of Chemistry" from UNICAMP

ITA	“Technological Institute of Aeronautics” from DCTA
<b>J</b>	
Jet A	Jet A is a kerosene type of fuel, produced to an American Society for Testing and Materials (ASTM) specification and normally only available in the U.S.A. It has the same flash point as Jet A-1 but a higher freeze point maximum (-40°C). It is supplied against the ASTM D1655 (Jet A) specification.
Jet fuel	The term includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel has been largely phased out but was used primarily for military turbojet and turboprop aircraft engines.
JIRCAS	“Japan International Research Center for Agricultural Sciences”.
Joule	A unit of work or energy symbolized by the letter “J”.
<b>K</b>	
Kyoto Protocol	An international agreement linked to the United Nations Framework Convention on Climate Change. The Kyoto Protocol sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions .
<b>L</b>	
Land use change	A greenhouse gas inventory sector that covers emissions and removals of greenhouse gases resulting from direct, human-induced land use, land-use change and forestry activities. This term can also refer to indirect land use changes that may occur as a result of changes in resource use and consumption patterns (i.e., potential land-use change in other locations due to use of a local crop for biofuel production).
Lanzatech	American private company working on development and commercialization proprietary technologies for the production of low-carbon fuels.
LCA	Life cycle analyses (LCA) looks at the whole picture of how a fuel is made, from “cradle to grave.” In the case of biofuels generally refers to greenhouse gas emissions or CO <sub>2</sub> emissions from initiation of feedstock production to combustion of the fuel in a vehicle.
Life	“Life Technologies”. LIFE is a global biotechnology company providing complete Synthetic Biology solutions to areas such as Biofuels, Agricultural Biotechnology, Bio-based Chemicals, Industrial Enzymes, Biocontrols, Life Science Research, Pharma, Vaccines and Antibodies.
Limited liability company	A business structure similar to a corporation, in which owners have limited personal liability for the debts and actions of the LLC. Other features of LLCs are more like a partnership, providing management flexibility and the benefit of pass-through taxation.
Liquefaction	A process by which natural gas is converted into a liquid. Also a process by which coal is converted into synthetic fuels. Can also refer to biomass liquefaction at high pressure and moderate temperature that results in the production of low-oxygen bio-oil, which can be used as, or further refined into, hydrocarbon fuel.
LLC	“Limited Liability Company”.
LTO	Landing and take-off emissions (LTO) All aircraft activities that take place at altitudes under 914 meters (3,000 feet), including taxi-in and -out, take-off, climb-out and approach-landing.
Lumin Weyerhaeuser	Company working on sustainable plywood production from pine and eucalyptus.



<b>M</b>	
MAPA	“Ministry of Agriculture, Livestock and Supply” (Brazil)
MCTI	“Ministry of Science, Technology and Innovation” (Brazil)
MJ	measurement unit for energy.
Megaton (i.e., of CO <sub>2</sub> )	One million tons.
Memorandum of Understanding	A document describing a bilateral or multilateral agreement between parties. It expresses a convergence of will between the parties, indicating an intended common line of action. It is often used in cases where parties either do not imply a legal commitment
Metric ton	1,000 kilograms or 2,205 pounds.
MMA	“Ministry of the Environment” (Brazil)
MME	“Ministry of Mines and Energy” (Brazil)
MONSANTO	American private company working on agricultural biotechnology.
Mount Rundle	“Mount Rundle Financial”. Company working on investment advisory service, with an emphasis on Brazil and Latin America.
MOU	“Memorandum of understanding”.
MT	“Ministry of Transport” (Brazil)
Municipal Solid Wastes	They can be: Biodegradable waste, Recyclable material, Inert waste, Electrical and electronic waste (WEEE), Composite wastes, Hazardous waste, Toxic waste and Medical waste.
<b>N</b>	
N <sub>2</sub> O	Nitrous oxide.
NERD	NERD is Non-Esterified Renewable Diesel. There are several varieties of this type of biodiesel, also known as renewable diesel. The most advanced of these is produced through hydrotreating—the same process that is already used in today’s petroleum refineries. HRJ is an example of a NERD fuel.
Neste Oil	Finnish oil refining and marketing company producing mainly transportation fuels and other refined petroleum products
NIPE	“Interdisciplinary Center of Energy Planning” from UNICAMP
NGO	“Non Governmental Organization”
Nitrogen oxides	Gases that contribute to ozone formation in the troposphere, where it acts as a greenhouse gas.
Nitrous oxide	A greenhouse gas, emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
NO <sub>x</sub>	Nitrogen oxides
NWF	“National Wildlife Federation”. Non-profit organization working on protecting wildlife and saving habitats.
<b>O</b>	
O <sub>2</sub>	Oxygen.
O <sub>3</sub>	Ozone.
OEM	An original equipment manufacturer, or OEM, manufactures products or components which are purchased by a purchasing company and retailed under the purchasing company’s brand name. OEM refers to the company that originally manufactured the product.



Offtake agreement	An agreement between a producer of a resource and a buyer of a resource to purchase/sell portions of the producer's future production.
Olefins	Any of a class of unsaturated open-chain hydrocarbons such as ethylene, having the general formula $C_nH_{2n}$ .
Oleoplan	Company working on producing vegetable oils, mainly soybean oil.
Oligomerization	A chemical process by which smaller chemical units are polymerized into molecule with a finite, determined number of units.
Ozone	An atmospheric gas. A stratospheric layer of ozone protects the earth from UV radiation. When formed in the troposphere, often through the reaction of oxygen molecules with pollutants such as $NO_x$ , ozone acts as a greenhouse gas.
<b>P</b>	
Particulate matter	The term for a mixture of solid particles and liquid droplets found in the air resulting from fuel combustion. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small, they can only be detected using an electron microscope. PM has health consequences when inhaled and is regulated by the EPA.
PARTNER	"Partnership for Air Transportation Noise and Emissions Reduction".
Partnership for AiR Transportation Noise and Emissions Reduction	A FAA/NASA/Transport Canada-sponsored Center of Excellence that focuses on aviation research, including the development of "breakthrough technological, operational, policy, and workforce advances for the betterment of mobility, economy, national security, and the environment." (PARTNER website)
PETROBRAS	Brazilian oil company.
Petroleum	A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and non-hydrocarbon compounds blended into finished petroleum products.
Pipeline	A pipe used to transport liquids or gases.
PM	"Particulate matter".
Pró-Álcool	"National Program of Alcohol".
Pyrolysis	Production of bio-oil from biomass by heating at low pressure and high temperature in the absence of oxygen.
P&G	"Procter & Gamble".
<b>Q</b>	
Qualification (of fuel)	Qualification processes are used by specification-writing organizations such as ASTM International to develop new fuel specifications, or to revise existing specifications, to add a new alternative fuel. These qualification processes will include a technical evaluation of the fuel followed by development of the specification requirements and criteria.
<b>R</b>	
Ratoon	a new shoot or sprout springing from the base of a crop plant, esp. sugar cane, after cropping; also a second and successive harvest of sugarcane.
Refinery	A production facility composed of a group of chemical engineering unit processes and unit operations refining certain materials or converting raw material into products of value.
Refining	The process of purification of a substance or a form.

Renewable Energy	Energy generated from natural resources such as sunlight, wind, rain, tides, and geothermal heat, which are renewable (naturally replenished).
RSB	"Roundtable on Sustainable Biomaterials". An international multi-stakeholder initiative that brings together farmers, companies, non-governmental organizations, experts, governments, and inter-governmental agencies concerned with ensuring the sustainability of biofuels production and processing.
<b>S</b>	
SAC	"Secretary of Civil Aviation" (Brazil)
SAFUG	"Sustainable Aviation Biofuel User Group"
SG Biofuel	An energy crop company developing and delivering high performance bioenergy solutions for the renewable fuel, biomass and chemical markets.
SIF	"Society of Forest Investigation" from UFPR.
SINDICOM	"National Association of Fuels and Lubricants Distributor" (Brazil)
SO <sub>x</sub>	Sulfur oxides – an important component of emissions from fuel combustion that can contribute to particulate matter formation and acid rain.
Solazyme	Industrial biotechnology company using standard fermentation facilities to produce renewable oils and bioproducts using microalgae
Solvent liquefaction	Obtaining bio-oil by dissolving solid biomass in a mixture of organic solvents.
SPK	"Synthetic paraffinic kerosene"
Stranded assets	An asset that is worth less on the market than it is on a balance sheet due to the fact that it has become obsolete in advance of complete depreciation.
Supply chain	A system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer.
Sustainable energy	The provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their needs
SWAFA	"Sustainable Way for Alternative Fuels and Energy for Aviation". An alternative fuel for aviation initiative funded by the European Commission
Syngas	"Synthesis gas".
SYNGENTA	Swedish private company working on biotechnology and genomic research, mainly for seeds and pesticides.
Synthesis gas	A mixture of carbon monoxide, carbon dioxide and hydrogen created by gasification of high carbon-content materials such as coal or biomass. Gasification to form synthesis gas is a part of the Fischer-Tropsch process for producing synthetic hydrocarbons.
Synthetic biology	Synthetic biology refers to both the design and fabrication of biological components and systems that do not already exist in the natural world and the re-design and fabrication of existing biological systems. currently being used by some biofuels companies to convert raw materials into hydrocarbons using biological processes.
Synthetic fuel	Liquid fuel obtained from coal, natural gas, or biomass.
Synthetic jet fuel	Jet fuel made from non-petroleum sources. When this fuel is a "drop-in" fuel, it is also called synthetic paraffinic kerosene. The specifications (ASTM 7566) for synthetic jet fuel for commercial aviation use was passed by the aviation fuels subcommittee of ASTM International, the standards development organization.
Synthetic paraffinic kerosene	Synthetic jet fuel that has similar characteristics to standard petroleum based jet fuel (kerosene). See also "synthetic jet fuel."

<b>T</b>	
Tank farm	A facility for storage of liquid petroleum products or petrochemicals.
TERRABON	American private company working on development and deployment innovative and cost-effective technologies for biomass conversion.
TRB	Transportation Research Board.
Triglycerides	The primary constituent of vegetable oils composed of three fatty acid molecules attached to a single glycerol molecule.
<b>U</b>	
UFL	"Federal University of Lavras" (Brazil)
UFPR	"Federal University of Parana" (Brazil)
UFRGS	"Federal University of Rio Grande do Sul" (Brazil)
UFRJ	"Federal University of Rio de Janeiro" (Brazil)
UFSCAR	"Federal University of São Carlos" (Brazil)
UFV	"Federal University of Lavras" (Brazil)
UHCs	Unburned hydrocarbons.
ULS	Ultra Low Sulfur.
Ultra Low Sulfur	Refers to fuels from which sulfur has been removed to reduce particulate matter from emissions. Its most prevalent application currently is for diesel.
UNESP	"São Paulo State University" (Brazil)
UNICA	"Sugarcane Industry Association" (Brazil)
UNICAMP	"State University of Campinas" (Brazil)
UNIFEI	"Federal University of Itajubá" (Brazil)
UOP	A Honeywell Company working on technology development and solutions for the petroleum refining, gas processing, petrochemical production and others manufacturers industries.
Upgrading	Deoxygenation and hydrogenation of conversion products. Normally need expensive catalysts.
Uplift	Amount of fuel drawn from a particular facility for aircraft operations.
USP	"University of São Paulo" (Brazil)
<b>W</b>	
West Texas Intermediate	Also known as Texas Light Sweet, is a type of crude oil used as a benchmark in oil pricing and the underlying commodity of New York Mercantile Exchange's oil futures contracts.
WTI	"West Texas Intermediate".
WWF	"World Wildlife Found". The leading non-profit organization in wildlife conservation and endangered species.
<b>Y</b>	
Yellow Grease	An inedible fat obtained esp. from the parts of hogs not used in making lard, from condemned animals, or from refuse fat.
<b>OTHERS</b>	
1 <sup>st</sup> generation biofuel (1G)	Biofuel made of sugars, starch, r oils or other organic materials, using conventional technology. Examples are ethanol, biodiesel, biogas etc.

2 <sup>nd</sup> generation biofuel (2G)	advanced biofuel made of lignocellulosic, non-food materials. Example: 2G ethanol
3 <sup>rd</sup> generation biofuel (3G)	Biofuel with further processing that turns them undistinguishable from the petroleum counterparts. Also known as green hydrocarbons. Examples are jet biofuel, algae derived hydrocarbons etc.
4 CDM	"4 Cantos do Mundo" (Brazilian NGO)