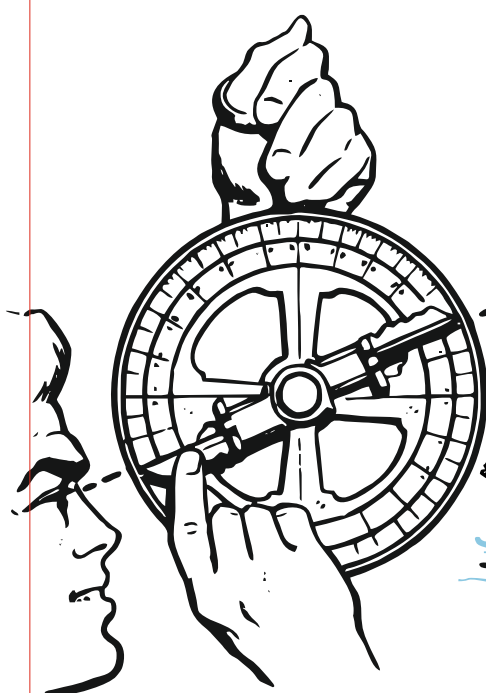




Łukasiewicz
Institute of Heavy
Organic Synthesis
BLACHOWNIA



HORIZON
europe

TOPIC ID:
HORIZON-CL5-2024-D3-02-02

Development of next generation synthetic renewable fuel technologies

Hydroconversion and hydroisomerisation of biobased feedstock into aviation fuels – purification and valorisation of biobased and waste streams, synthesis of fixed bed catalysts, long term pilot scale tests

- Type of project: Research and innovation (RIA)
- Deadline date: 05 September 2024

ABOUT US

High Pressure Processes Research Group offers a wide range of hydrogenation processes as well as various types of hydrogenation reactors. It is also possible to carry out high-pressure synthesis using other gasses such as: propylene oxide, ethylene oxide, ammonia or other gasses after consultation.

We offer our expertise and experience to prepare a successful project proposal, especially in the area of hydrogen-based processes, liquid and gaseous stream purification or separation. Our offer ranges from preliminary screening test, catalyst synthesis, pilot-scale testing as well as preparation of technical documentation for implementation of the technology.

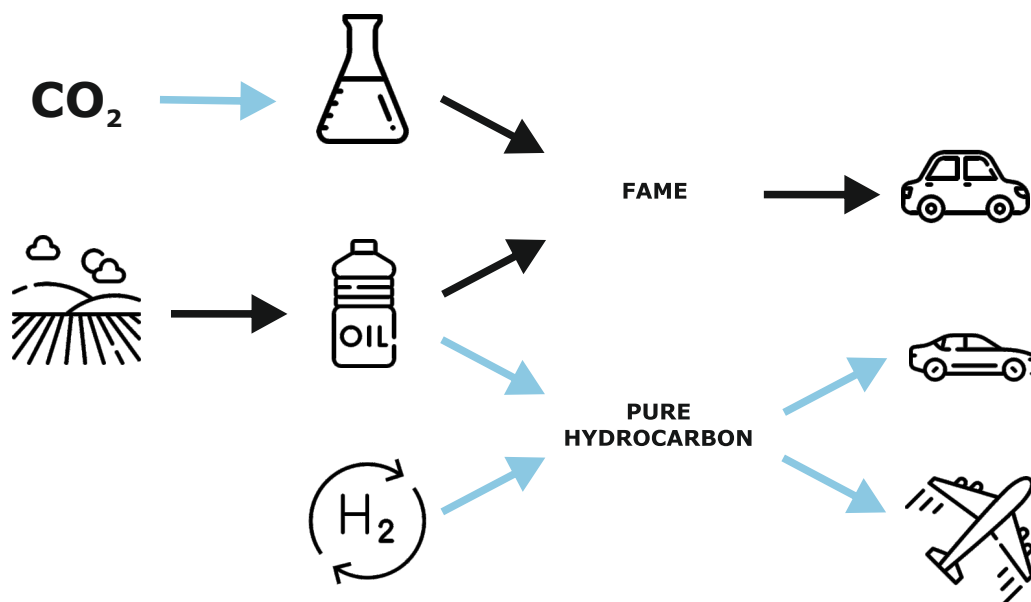
Development of next generation technologies for the production of novel synthetic renewable liquid and gaseous fuels from CO₂, and/or renewable carbon, nitrogen, hydrogen or their compounds and from renewable energy. Process energy will also be renewable.

Synergies with other renewable energy technologies can be explored. Focus should be on the high source to product conversion efficiency, process energy efficiency and carbon emission neutrality from the overall production.


OUR IDEA

We specialize in simulation of various high-pressure processes in continuous reaction units, working up to 300 bar, ranging from screening test scale up to pilot-technical hydrogenation unit able to demonstrate process in operational conditions.

Another area of interest is the synthesis of catalysts for various processes. We are equipped with lab scale twin-screw extruder as well as physics- and chemisorption apparatus for the evaluation of catalysts properties. We are open to collaborate in projects concerning chemical processing of renewable materials into valuable bio-derived products e.g. biofuels, bioplasticizers, biodegradable polymers.



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