



Biotechnology for Energy Research

acib offers biotechnological solutions for energy storage, energy conversion, biofuels and biogas.

BACKGROUND

There are currently huge technological advancements both in energy research and in biotechnology. A wise combination of those technologies will make an important contribution to a green and sustainable future!

TECHNOLOGY

Biotechnology uses electricity converted into H_2 to empower bacterial growth, allowing the fixation of CO_2 and the subsequent conversion to i) proteins for food/feed, ii) bioplastics or iii) biofuels (e.g. butanol). For the generation of biofuels acib's expertise in enzyme discovery and enzyme/microbial engineering can support you even further!

Biogas (CH_4) is an energy carrier which can be produced from all kinds of organic waste. The resulting digestate is used to improve soil quality and plant growth. To increase the commercial success and the characteristics of the digestate it is important to optimize anaerobic fermentation by introducing the right microorganisms for the specific task. acib's expertise is there to help you!

How can biotechnology help to generate huge amounts of energy and store them for long period of times as cheaply as possible? The solution is to use depleted underground gas reservoirs: If energy in form of hydrogen, together with CO_2 are both introduced into these environments, microorganisms are able to in situ transform them into natural gas, which can be stored for years before being used by existing infrastructure to power cars, heat households or provide energy to the industry. acib has a lot of expertise in this kind of research and can help you to identify suitable underground conversion and storage areas!

OFFER

Under protection of a CDA/NDA we provide you with professional strategies for YOUR project. IP developed in such a project would belong to you as our investor/industrial partner.

EXPERTS

Prof. Dr Georg Gübitz
Prof. Dr. Helmut Schwab
Prof. Dr. Heribert Insam
Dr. Günter Bochmann
Prof. Dr. Jürgen Zanghellini
Dr. Dmytro Iurashev

AVAILABLE FOR

- Investment
- Joint Research Projects
- Contract Research

DEVELOPMENT STATUS

Technology Readiness Level 2-6

IP R

Will be generated for our industrial partner / investor

KEYWORDS

- Biotechnology
- Energy Research
- Energy Storage
- Biogas
- Biofuels
- CO_2 -Recycling

CONTACT

acib GmbH, Krenngasse 37, 8010 Graz

☎ +43 316 873 9316

✉ bd@acib.at

🌐 www.acib.at