Web alert

Microbial green chemistry

An annotated selection of World Wide Web sites relevant to the topics in *Microbial biotechnology*

Microbial production of 1,3-propanediol

<http://www.greenchemex.org/?module=resources.edit&id=15&fs=1>

This page within the Green Chemistry Resource Exchange describes an award-winning technology to produce 1,3-propanediol using an engineered *Escherichia coli* strain. The process is now operating at a scale of 100 000 000 pounds, thus supplying this compound as a commodity chemical.

Microbial production of renewable petroleum

<http://www.epa.gov/gcc/pubs/pgcc/winners/sba10.html>

LS9, Inc. was awarded the United States Environmental Protection Agency's 2010 small business Green Chemistry award for developing innovative technology to make alkanes, alkenes, fatty acids and alcohols via microbial fermentative processes.

Recycling carbon dioxide to synthesize higher alcohols

<http://www.epa.gov/gcc/pubs/pgcc/winners/aa10.html>

James Liao from the University of California, Los Angeles LS9, Inc. was awarded the United States Environmental Protection Agency's 2010 academic Green Chemistry award for developing innovative methods use photosynthetic bacteria to fix carbon dioxide and synthesize industrially relevant compounds.

A green chemistry approach to industrially relevant compounds

<http://techventures.org/assets/images/uploads/Fox-biocatalysts.pdf>

This poster gives an excellent overview of biocatalytic processes from a business and technical standpoint.

Biopesticides for green chemistry

<http://advancinggreenchemistry.org/wp-content/uploads/Green-Chem-and-Sus.-Ag.-the-Role-of-Biopesticides.pdf>

This web booklet discusses naturally occurring compounds and microorganisms that are important as pesticides.

Advancing Green Chemistry

<http://advancinggreenchemistry.org/>

Advancing Green Chemistry is an organization whose mission is to promote the development and use of green chemistry throughout society. There is significant educational material available from this site.

Warner Babcock Institute for Green Chemistry

<http://www.warnerbabcock.com/>

This institute promotes all aspects of green chemistry, including the use of microbial biotechnology, for solving chemical problems in society.

Slow-release spinosad for mosquito control

<http://www.epa.gov/gcc/pubs/pgcc/winners/dgca10.html>

This page describes a new formulation for an existing microbial product that acts as a biopesticide.

Green chemistry network

<http://www.greenchemistrynetwork.org/>

The green chemistry network promotes the practices of green chemistry throughout society. It is a non-profit organization initially launched with funds from the Royal Society of Chemistry.

Microbial production of commodity chemicals

<http://www.iupac.org/objID/Article/pac6707x1241>

This article from the IUPAC provides an excellent overview of high-volume chemical production by microbes.

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