

Carbon Sequestration Ltd

Realising the value of CO₂

Creating high-value chemicals from CO₂

DECC CCS Innovation Programme

Presented by Dr David Hogg of Carbon Sequestration Ltd

13th Annual APGTF Workshop

21st February 2013

Our philosophy

- Carbon Sequestration Ltd's focus has been on Carbon Utilisation since 2007.
- CO₂ is a valuable commodity!
- Collaborative business led partnerships!
- Commercially driven Research & Development!
- Creation of wealth today!

Some CCU research areas

CO-PRODUCT - flyash,
seawater, landfill leachate



CO-PRODUCT

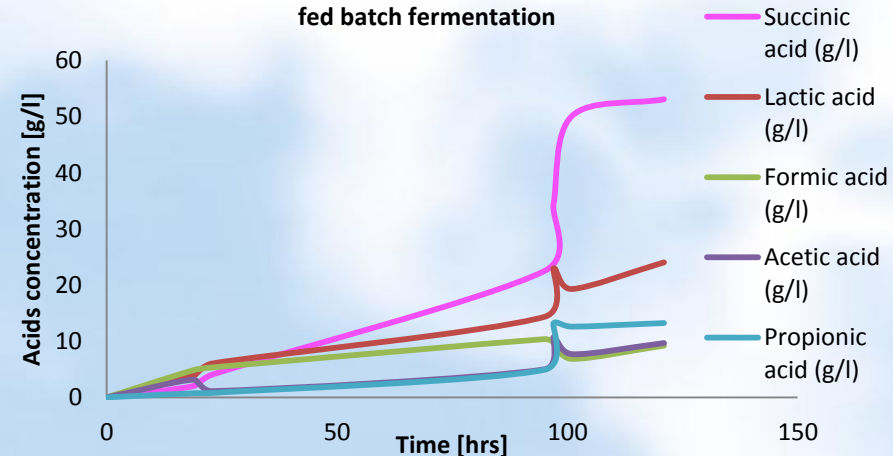
~ simple carbohydrates



CATALYTIC CONVERSION
for
carboxylic acid production

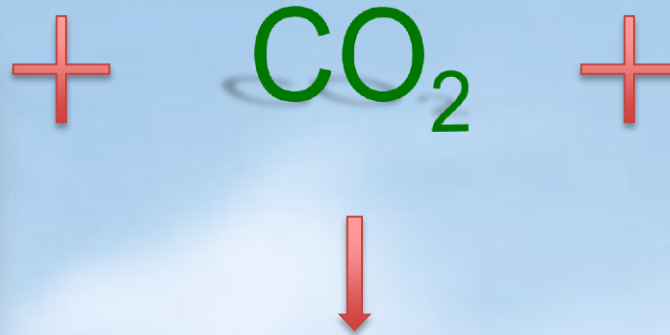
MINERALISATION
for
inorganic species
production
i.e. calcium carbonate,
ammonium carbonate

Carboxylic acids production by *Acetivobacillus succinogenes* during fed batch fermentation



DECC 'CCS Innovation Programme'

genetically modified
microalgae



high-value chemicals

novel bioreactor



Key features:

- Enhanced CO₂ fixation (microalgae species identified)
- Use of flue stack gases
- Reduced operating footprint
- Self-harvesting of carbonate solids and biomass
- Reduced capex and operating costs

Summary

- CO₂ flow streams provide many opportunities for industry, i.e. the creation of wealth in addition to carbon abatement.
- Our R & D projects are selected based on commercial imperative, creating value for our partners today.
- We have completed successful collaborative projects delivering saleable products.
- We invite you to talk to our team!

Thank you.

Contacts

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