

Chapter 6 - Biological fuel generation

- 61 Global warming and the significance of fossil fuels
 - A. Contrast CO₂ release from fossil fuel and recent plant material
- 62 Photosynthesis
 - A. Equation
 - B. Efficiency
 - 1. plants
 - C. Biomass
- 63 Biofuels from biomass
 - A. Definition
 - 1. forms
 - B. Crops & how use
 - C. European land
 - D. Conversion
 - 1. process
 - 2. end products
 - E. Cultivation
 - 1. source
 - a. examples
 - F. Org wastes
 - G. Technical processing
- 64 Bioethanol from biomass
 - A. Alcohol - equation
 - B. Current source
 - C. Benefits of bioethanol
 - 1. cheapest source
 - D. Brazil
 - E. Why industrial
 - F. Pretreatment of biomass
 - G. Biotech impact
 - 1. microorgs
 - 2. bioreactor design
 - H. Stillage
 - 1. definition
 - 2. how deal with
- 65 Biodiesel
 - A. Source
 - B. Method of production
 - C. Biomass sources
 - D. Differences from conv. diesel
 - E. Engine modifications
 - 1. results
 - F. Where used
 - G. Cost

- 66 Methane
 - A.What is it?
 - B.Sources
 - C.Is it a green house gas
 - D.Processing stages from organic mixtures
 - E.Rumen
 - F.Industrial production
 - 1.sewage
 - 2.agriculture & urban wastes
 - a. difficulties
 - G.Biogas
 - 1.definition
 - 2.composition
 - 3.biomethylation
 - a. process
 - 4.scale
 - a. where practiced
 - 5.marine algae
- 67 Hydrogen
 - A.Use
 - B.Competition
 - C.Source
- 68 The way ahead for biofuels
 - A.entry factors
 - B.goals
 - C.other costs
- 69 Contrasting views on climate change
 - A.Solar winds
 - B.Computer modeling
 - C.Fossil fuel supply