BOOK REVIEWS

New Books Received


Application of Biotechnology to Mitigation of Global Warming: Proceedings of the St. Michaels II Workshop, April 2003


The rapid increase in atmospheric concentrations of CO₂ and other greenhouse gases (GHGs) with a warming has increased scientific and public interest in identifying mitigation options. Two principal categories of technologies include (i) reducing emissions or preventative measures, and (ii) sequestering emissions or adaptive responses. Mitigation options involving emissions improves energy use efficiency and finding alternatives to fossil fuel. Sequestration involves capturing and storing CO₂ through techniques and biotic options. Engineering techniques on capturing emissions at the smokestack or tailpipe, purifying CO₂, compressing it, transporting it, and then injecting it into geologic strata (old coal mines, oil wells, or geological strata) has little or no adverse ecological effects, and is also a cost-effective option. This volume, which focuses on biological and non-biological options to be covered in the first volume, was published in 1999.

The purpose of this 10-chapter volume is to detail the human dimensions, and environmental consequences for using biomass, wood products, and soils, and convert biomass into liquid fuels and plastics; (iv) increasing energy efficiency. The study was conducted at the Pacific Northwest Laboratory (PNNL).