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Curriculum Units by Fellows of the National Initiative
2006 Volume V: The Science of Global Warming

The Case for Biodiesel with Selected Experiments

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by Matthew N. VanKouwenberg

This unit is designed primarily for high school chemistry, biology, or physics classes. Additionally there are many parts that could very easily be used in a mathematics or social studies class. The bulk of the content is chemistry, but the energy balances and transfers fit nicely in a physics curriculum. Also the way in which the different biological components fit together and the beginning ecological issues go well in a biology class. But why global warming? While the actual consequences of global warming will be discussed later, suffice it to say they are disastrous. Unfortunately many people are not aware of the stakes. We need to empower people and help them realize that they can make a difference in the world, even on problems that are global in scale. We will look at the advantages of biodiesel over petroleum, mostly from a scientific perspective, but with some conversation of the economic and geo-political ramifications.

(Developed for Biology and Chemistry, grade 9; recommended for Biology and Chemistry, grades 9-12)

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