



University of Hawai'i at Mānoa

## **Hawai'i Natural Energy Institute**

School of Ocean & Earth Science & Technology

# **Biodiesel Production from Heterotrophic Microalgal Oil**

This presentation by Dr. Qingyu Wu will include discussion of strategies for the production of biodiesel fuel from microalgal oil. Heterotrophic growth of *Chlorella protothecoides* can result in the accumulation of high lipid content (55%) in cells. A large amount of microalgal oil was efficiently extracted from these cells using the solvent n-hexane. Biodiesel fuel that is comparable to conventional diesel fuel was obtained by acidic transesterification. The results suggest that a feasible and effective method to produce high-quality biodiesel fuel from microalgal oil is possible.

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