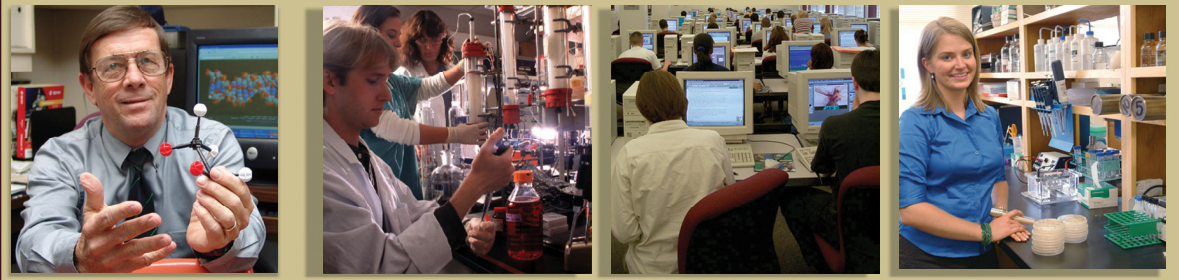




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Technology Opportunity

Portable Sterilization System

This sterilization system offers a portable, faster, more effective way to sterilize almost anything. A plasma reactor converts water into hydrogen peroxide and other oxidative/reductive species through a high voltage electrical discharge in the plasma region. The reactor utilizes water and an AC power supply to make it suitable for small and medium scale use.

Applications

- Sterilization of food, hospital equipment, and other items
- Destruction of harmful pollutants in gases and water

Advantages

- Fast and effective on-site sterilization
- Self-contained unit allows for portability
- Requires only electricity and water and gas supply



The Inventors

Bruce R. Locke is professor and chairman in the Department of Chemical and Biomedical Engineering at Florida State University. He has a PhD from North Carolina State University and a masters degree from the University of Houston in chemical engineering, and a bachelor degree from Vanderbilt University in chemical engineering and environmental and water resources engineering. His research interests are in the development and analysis of electrical discharge plasma reactors for initiating chemical reactions in air and water pollution control, green chemistry, and disinfection. He also studies networks of chemical reactions coupled with diffusion and convection in bioreactors, tissue engineering, and other bioengineering applications. He has published 100 peer reviewed journal papers and is a member of the AIChE, American Chemical Society, and IEEE.



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