



Petrogel absorbs petroleum

## Technology Summary

The investigators have developed and patented a new polyolefin-based hydrocarbon super-absorbent polymer (Petrogel®) that can effectively transform a maritime oil spill into a floating solid (oil-swelled gel), ready for collection (recovery by skimmer) and refining as regular crude oil, with no special disposal requirements and no residual waste in natural resources.

## Application & Market Utility

Three standard methods are commonly deployed to combat an oil spill on the open sea today, including booms and skimmers, dispersants, and in situ burning. These methods are either ineffective or have deleterious environmental consequences. Most of the spilled oil is wasted, becoming pollutants in the air and water. Small fractions that are recovered generate a large quantity of solid and liquid waste. The technology provides a system for collection and reuse or recycling of spilled hydrocarbons.

## Next Steps

Seeking research collaboration and licensing opportunities.

### TECHNOLOGY READINESS LEVEL

4-7

#### Seeking

Investment | Licensing | Research

#### Keywords

- oil recovery
- super-absorbent
- petrogel

#### Researchers

**T.C. Mike Chung, PhD**

Professor of Polymer Science

[Online Bio](#)

#### Originating College

College of Earth and Mineral Sciences

#### Office of Technology Management Contact

Swope, Bradley  
bas101@psu.edu  
814-863-5987