

Simple Process to Remove Almost All Traces of Oil in Produced Water

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- Civil Engineering
- Green Technology

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- Civil Engineering
- Green Technology
- Water Treatment

Produced water is a byproduct that results from the oil refinery and extraction process. Produced water handling is a major challenge in the oil refinery industry due to the contaminants it is deemed unusable for household and commercial use by the Environmental Protection Agency (EPA). Several different commercial produced water treatments are available but they are expensive, do not remove all traces of oil and other contaminants from the water, and can be energy intensive.

Researchers at Purdue University have developed a process which removes almost all traces of oil in produced water. The process uses activated charcoal foam and subjects it to solar light. The heat generates steam at the surface of the foam. The distillate met all EPA standards for clean water from industrial sources and had a total organic carbon of 7.5 mg/L. This simple, clean, and inexpensive treatment process for produced water had higher recovery capacity than conventional methods in laboratory experiments.

Advantages:

- Inexpensive process
- Removes almost all traces of oil
- Simple water treatment process

Potential Applications:

- Treatment of produced water
- Oil spills

Tags: Green Technology, Civil Engineering, Water Treatment

People:

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