Analytical Instrumentation, Methods & Materials

APPARATUS AND METHOD FOR DIRECT NITRATE SENSING IN SOIL

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Inventors: Joseph Andrews, Jingyi Huang, Aatresha Biswas

Overview

Nitrate is a nutrient that helps plants grow, but too much of it can be harmful. Nitrate monitoring can be used to reduce the amount of fertilizer needed, which is better for the environment and can save money in the long run.

The Invention

UW Madison researchers have developed a new type of sensor that can measure the amount of nitrate in soil. The sensor uses two electrodes and a nitrate-selective membrane. When the membrane interacts with nitrate ions in soil, it causes a change in potential across the electrodes. The sensor is specifically designed to work in wet soil environments, which is important for accurate measurements. The sensor has been tested in different types of soil and has been shown to be effective.

Additional Information

For More Information About the Inventors

- Joseph Andrews
- Jingyi Huang

Tech Fields

- Analytical Instrumentation, Methods & Materials : Sensors

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867