E. coli Strain Demonstrating Enhanced Solvent Tolerance

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Invention

Biofuels research is becoming increasingly popular as gasoline prices increase and availability of fossil fuels diminishes. Butanol is a better alternative to ethanol since it is nearly as efficient as gasoline and can share the same existing infrastructure as petroleum-based fuels. However, biobutanol is difficult to efficiently mass produce since the bacteria being used demonstrate a low tolerance to the solvent they're producing. This technology presents a strain of *E. coli* with an increased tolerance to butanol concentration.

Technology

A strain of *E. coli*, BT01, has been engineered to demonstrate an increased tolerance to butanol concentration. The strain is tolerant to up to 2.4% butanol by volume and can be readily engineered to produce butanol.

Applications

- Biofuel can be readily modified to produce butanol or other solvents with increased yield
- Remediation- can be modified to remove contaminants more effectively

Advantages

- Exhibits an increased tolerance to butanol
- Strain is more robust

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