



Cells And Methods For Producing Methyl Ketones

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The Invention

Recombinant cells and methods for producing methyl ketones, such as medium-chain methyl ketones. The recombinant cells include recombinant acyl-ACP thioesterase genes, recombinant β -ketoacyl-CoA thioesterase genes, and recombinant acyl-CoA synthetase genes, in addition to other modifications. The methods include culturing the recombinant cells to produce the methyl ketones and isolating the produced methyl ketones.

Applications

- Modified microorganisms that produce higher titer medium-chain methyl ketones
- Medium-chain methyl ketones have current uses as chemical intermediates, flavors, and fragrances, and their compatibility with diesel fuels shows their potential as liquid fuels

Key Benefits

- High titer production from E. coli
- Potential as biorenewable liquid fuel
- Production of medium-chain methyl ketones which can be condensed to long-chain fuels
- Production likely further applicable to other medium-chain oleochemicals

Additional Information

For More Information About the Inventors

- [Brian Pfleger](#)

Tech Fields

- [Clean Technology: Biobased & renewable chemicals & fuels](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854