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(54) **RECOMBINANT MICROORGANISMS AND USES THEREFOR**

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(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

The invention provides, inter alia, methods for the production of acetone, isopropanol and/or precursors of acetone and/or isopropanol by microbial fermentation of substrates comprising CO, genetically modified microorganisms of use in such methods, nucleic acids suitable for preparation of genetically modified microorganisms, a novel alcohol dehydrogenase and nucleic acids encoding same.

21 Claims, 59 Drawing Sheets