

# Isolation of native Clostridia for utilization of agroindustrial cherry waste into butanol

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The use of butanol synthesized from organic waste has been widely studied, but the lack of native strains of Clostridium and the use of a synthetic medium for its growth remain important barriers to extend its use. In this work, it was possible to isolate and characterize three strains of Clostridium sp. native using the Cherry Waste (ChW) as a culture medium, contained 106 g L<sup>-1</sup> of total carbohydrates equivalent glucose, and a synthetic medium (P2) as control containing 20 g L<sup>-1</sup> of glucose, which demonstrated that isolated natives strains are producers butanol, used ChW as culture medium. The work done is a contribution in the field of bioenergy science to increase the bioconversion of agroindustrial waste energy and thus reduce the costs of biofuel production. © 2019 John Wiley & Sons, Ltd.

ABE fermentation

agro-industrial waste

butanol

Clostridium

native strain

Butenes

Clostridium

Glucose

Abe fermentations

Agro-industrial wastes

Bio-energy

Biofuel production

Culture medium

Organic wastes

Synthetic medium

Total carbohydrates

Strain