
Eco
Latté

Stably transformed Coffea arabica plant cells, derived from protoplasts and capable of regeneration, are disclosed.

Problem this patent is trying to solve:

- lengthy time for fruit development and 2-4 year bean-to-bean generation time (lengthy + costly)
- traditional breeding techniques have been unsuccessful because C. arabica is tetraploid, while other species are diploid
- Stable genetic modifications

EXPIRED IN 2011- FEE RELATED

tion is transmitted to progeny.

SUMMARY OF THE INVENTION

The present invention arose out of the discovery that a genetically modified protoplast of the genus Coffea could be produced from which a whole plant can be regenerated which stably incorporates a genetic change induced in the protoplast. A means for introducing DNA which genetically modifies such a protoplast is electroporation.

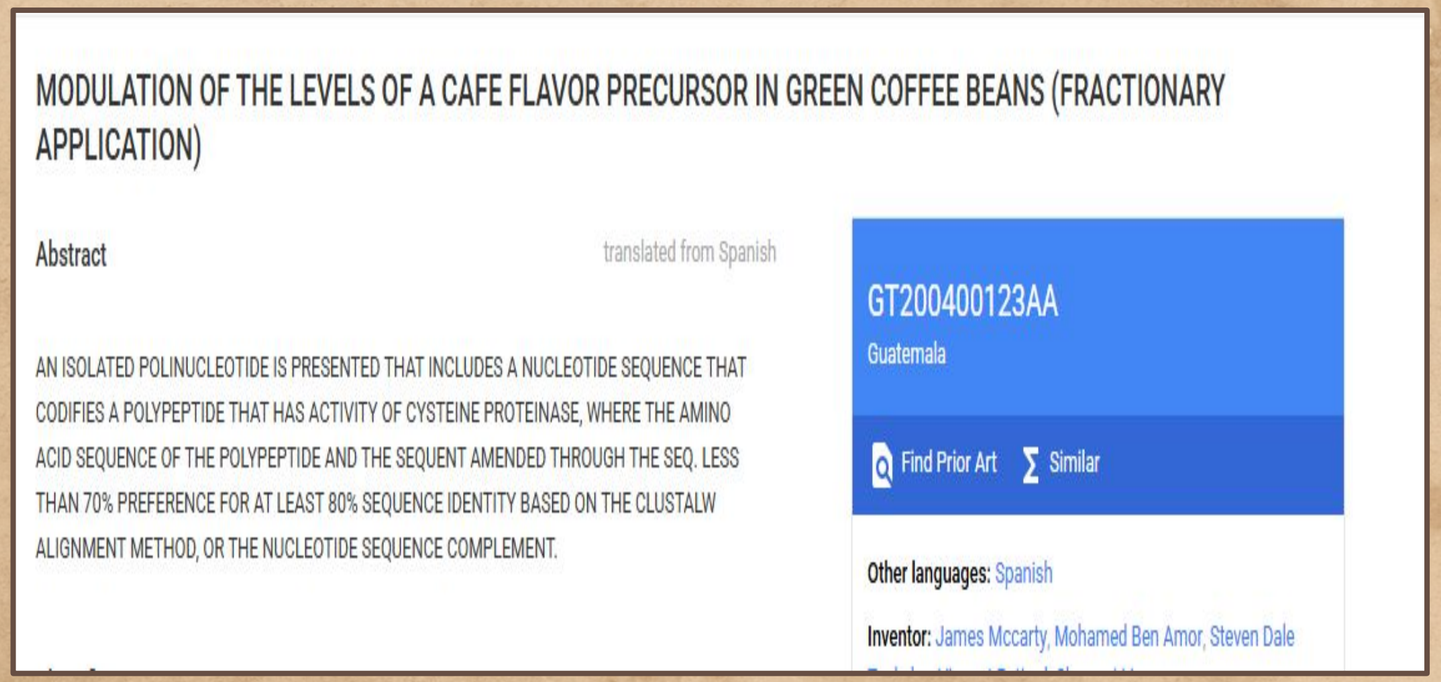
Accordingly, the present invention relates to (1) genetically modified protoplasts of the genus Coffea from which whole plants can be regenerated, (2) plants regenerated from these protoplasts which stably incorporate a genetic change induced in the protoplasts, (3) seeds produced by these plants or their progeny, and (4) tissue derived from these plants or their progeny. The present invention utilizes cell culture technology to isolate, charactarize, and develop genetically modified protoplasts which genetically transmit a genetic modification to their progeny.

Various other objects, features and attendant advantages of the present invention will be more fully appreciated as the same becomes better understood from the following detailed description in connection with the accompanying examples.

DETAILED DESCRIPTION OF THE

MODULATION OF THE LEVELS OF A CAFE FLAVOR PRECURSOR IN GREEN COFFEE BEANS (FRACTIONARY APPLICATION)

published in Guatemala in 2009



MODULATION OF THE LEVELS OF A CAFE FLAVOR PRECURSOR IN GREEN COFFEE BEANS (FRACTIONARY APPLICATION)

Abstract

translated from Spanish

AN ISOLATED POLINUCLEOTIDE IS PRESENTED THAT INCLUDES A NUCLEOTIDE SEQUENCE THAT CODIFIES A POLYPEPTIDE THAT HAS ACTIVITY OF CYSTEINE PROTEINASE, WHERE THE AMINO ACID SEQUENCE OF THE POLYPEPTIDE AND THE SEQUENT AMENDED THROUGH THE SEQ. LESS THAN 70% PREFERENCE FOR AT LEAST 80% SEQUENCE IDENTITY BASED ON THE CLUSTALW ALIGNMENT METHOD, OR THE NUCLEOTIDE SEQUENCE COMPLEMENT.

GT200400123AA

Guatemala

Find Prior Art Similar

Other languages: Spanish

Inventor: James Mccarty, Mohamed Ben Amor, Steven Dale

Coffee composition having stable flavor characteristics and method

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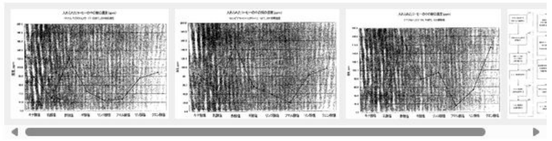
Back to results (modified coffee plants);

Coffee composition having stable flavor characteristics and method

Abstract

A method for altering a coffee source component profile of an aged coffee source to mimic a target coffee component profile of a non-aged coffee source, wherein the aged coffee source and the non-aged coffee each comprise multiple taste contributing acids.

Images (4)



Classifications

A23F5/243 Liquid, semi-liquid or non-dried semi-solid coffee extract preparations; Coffee gels; Liquid coffee in solid capsules

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JP4654308B2
Japan

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Other languages: Japanese

Inventor: クレイグ ハーデスティー ダグラス, ダグラス ヤング ジェリー

Worldwide applications

2002 · ~~OA~~ ~~EP~~ CN WO ~~DE~~ ~~AU~~ ~~US~~ JP ~~AT~~ ~~BR~~ 2005 · ~~US~~ 2009 · ~~JP~~

Application JP2009201935A events

2009-09-01	Application filed by ザ フォルジャーズ コーヒー カンパニー
2009-12-03	Publication of JP2009279010A
2011-03-16	Application granted
2011-03-16	Publication of JP4654308B2
2022-02-13	Anticipated expiration
Status	Expired - Fee Related

Info: Patent citations (54), Cited by (13), Legal events, Similar documents, Priority and Related Applications

External links: Espacenet, Global Dossier, Discuss

Description translated from Japanese

Claims (13) Hide Dependent translated from Japanese

A method for changing the coffee source component characteristics of an aged coffee source to mimic the target coffee component characteristics of a non-aged coffee source, where the aged coffee source and the non-aged coffee source each contribute to the taste Contains multiple acids,

The method

a) determining the target coffee component characteristics of the non-aged coffee source by measuring the concentration of two or more acids that contribute to the taste in the non-aged coffee source;

b) determining the coffee source component characteristics relative to the aged coffee source by measuring the concentration of two or more acids that contribute to the taste in the aged coffee source;

Here, the two or more acids contributing to the respective tastes in the non-aged coffee source and the aged coffee source are acetic acid, lactic acid, malic acid, formic acid, citric acid, phosphoric acid, and salts thereof, and Selected from the group consisting of

c) Contrast the subject coffee ingredient characteristics with the coffee source ingredient characteristics to identify acids that contribute to the main taste and one or more acids that contribute related tastes other than the acids that contribute to the main taste. A process,

The acid that contributes to the main taste is the acid or salt thereof that has the greatest change in the ratio of the two or more acids in the unaged coffee source and the two or more acids in the aged coffee source to the total concentration of the corresponding acid. ,

d) adjusting the acid concentration contributing to the main taste in the aged coffee source to within a range of 50% to 150% of the acid concentration contributing to the main taste in the non-aged coffee source; and,

e) Adjusting the concentration of acid contributing to each relevant taste in the aged coffee source to the value of R_{CS}, thereby changing the coffee source component characteristics and the target coffee component characteristics of the non-aged coffee source Is a process of imitating

R_{CS} is within the range represented by the following equation:

$$(0.5)\ (P_{TC} / R_{TC}) \leq (P_{CS} / R_{CS}) \leq (1.5)\ (P_{TC} / R_{TC})$$

P_{TC} is the acid concentration that contributes to the main taste in the non-aged coffee source,

R_{TC} is the concentration of acid that contributes to the relevant taste in the non-aged coffee source,

P_{CS} is a process that is the concentration of acid that contributes to the main