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(21) International Application Number: PCT/EP99/07670 (22) International Filing Date: 13 October 1999 (13.10.99) (30) Priority Data: TV98U000041 16 October 1998 (16.10.98) IT (71)(72) Applicant and Inventor: TRINCA, Renato [IT/IT]; Via Arditi, 117, I-31110 Bavaria Di Nervesa Della Battaglia (IT). (74) Agent: FORATTINI, Amelia; Internazionale Brevetti Ingg. Zini, Maranesi & C. s.r.l., Piazza Castello, 1, I-20121 Milano (IT).		(81) Designated States: AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: METHOD FOR PRODUCING FLAVORED POPCORN (57) Abstract A method for producing flavored popcorn includes the steps of heating corn to obtain popcorn; mixing the resultant popcorn into a composition containing at least one flavor and at least one coloring agent, keeping the resultant mixture at a selected temperature while stirring; pouring the mixture over a surface to let the mixture dry and separate, while stirring.		

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METHOD FOR PRODUCING FLAVORED POPCORNS

Technical Field

The present invention relates to a method for producing flavored popcorns.

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Background Art

As known, popcorns are produced by exposing to dry heat the kernels of corn, particularly Indian corn (*Zea mays everta*) that thereby pop or are everted by the explosion of the contained moisture and form a white starchy mass many times the size of the original kernel.

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Popcorns are often served with dressings such as salt, butter, and a variety of other flavors or dressings, that are generally sprinkled over the popcorns.

15 Disclosure of the Invention

An aim of the present invention is to provide a method for flavoring popcorns.

A further aim of the invention is to provide a method, for producing flavored popcorns, particularly useful in the food processing industry.

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A further aim of the invention is to provide a method for producing popcorns that retain the flavor over a period of time in the package.

The above aims, and other aims that will be more apparent hereinafter, are achieved by a method as claimed in the appended claims.

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Further characteristics and advantages of the invention will be more apparent by the following description of an embodiment of the invention.

30 Ways of carrying out the invention

The method according to the invention comprises the steps of heating corn, particularly Indian corn (*Zea mays everta*), and then placing the popcorns in a container containing a

sugar based composition comprising glucose syrup, vegetal fats, salt, flavors and coloring agents according to the desired final aspect and taste of the coated popcorns.

5 The sugar content of the composition may vary for example from 30% to 60% by weight of the total weight of the composition, depending on taste and on the treating temperature of the mixture. The treating time may vary from about 20 to 40 minutes, depending on the temperature.

10 Vegetal fats generally melt at 60°C to 80°C and an optimal composition is obtained by adding 40% to 50% by weight of glucose to the composition.

The above mixture of popcorns into the composition is then kept at a temperature in the range of 100°C to 150°C, according to the desired final product. The mixture is gently stirred to allow the popcorns to absorb the flavor and color. Treating time and temperature
15 are regulated according to the combination of flavor and coloring agent used, each having an optimal yield at a specific temperature range.

Then, the mixture is poured over a flat surface, such as a stainless steel plate, to allow the mixture to cool down while it is stirred by means of steel plates or breakers to separate the
20 popcorns.

The thus obtained product is then weighed and packaged in sealed plastic containers.

As said above, the composition contains flavors and coloring agents. According to an
25 aspect of the invention, a specific coloring agent is used with each flavor.

Examples of flavor/coloring agent combinations are the following:

cinnamon flavor with bright red color;
hazelnut flavor with hazelnut color;
30 coconut flavor with orange color;
caramel flavor with dark green or pale red color, blue or green;
mint-licorice flavor with dark brown-black color;

chestnut flavor with hazelnut color;
cheese flavor with yellow color;
lemon flavor with yellow color.

- 5 The method according to the invention may have numerous modifications and variations, within the scope of the claims and all the details may be replaced with technically equivalent elements.

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CLAIMS

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1. A method for producing flavored popcorns characterized in that it comprises the steps of heating corn to obtain popcorns; mixing the resultant popcorns into a composition containing at least one flavor and at least one coloring agent, keeping the resultant mixture at a selected temperature while stirring; pouring the mixture over a surface to let the mixture dry and separate.

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2. The method, according to claim 1, characterized in that said composition is a sugar based composition comprising glucose syrup, vegetal fats, salt, flavors and coloring agents.

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3. The method, according to claim 1 or 2, characterized in that said composition has a sugar content from 30% to 60% by weight of the total weight of the composition.

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4. The method, according to one or more of the preceding claims, characterized in that said resultant mixture is kept at said selected temperature for a treating time of 20 to 40 minutes.

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5. The method, according to one or more of the preceding claims, characterized in that said mixture of popcorns and composition is kept at a temperature of 100°C to 150°C during said treating time.

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6. The method, according to one or more of the preceding claims, characterized in that said surface where said mixture is poured is a flat stainless steel plate, wherein said mixture is allowed to cool down while it is stirred.

7. The method, according to one or more of the preceding claims, characterized in that said composition contains cinnamon flavor combined with a coloring agent yielding

a bright red color.

8. The method, according to one or more of the preceding claims, characterized in that said composition contains hazelnut flavor combined with a coloring agent yielding a hazelnut color.

9. The method, according to one or more of the preceding claims, characterized in that said composition contains coconut flavor combined with a coloring agent yielding an orange color.

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10. The method, according to one or more of the preceding claims, characterized in that said composition contains caramel flavor combined with a coloring agent yielding a blue, green, dark green or pale red color.

11. The method, according to one or more of the preceding claims, characterized in that said composition contains mint-licorice flavor combined with a coloring agent yielding a dark brown-black color.

12. The method, according to one or more of the preceding claims, characterized in that said composition contains chestnut flavor combined with a coloring agent yielding a hazelnut color.

13. The method, according to one or more of the preceding claims, characterized in that said composition contains cheese flavor combined with a coloring agent yielding a yellow color.

14. The method, according to one or more of the preceding claims, characterized in that said composition contains lemon flavor combined with a coloring agent yielding a yellow color.

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INTERNATIONAL SEARCH REPORT

In ternational Application No

PCT/EP 99/07670

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A23L1/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A23L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 3 505 076 A (MALONEY JOHN F ET AL) 7 April 1970 (1970-04-07) column 2, line 66 -column 5, line 26 claims 1,11 examples ----	1, 4, 9, 12
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
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Authorized officer

Vuillamy, V

INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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International Application No

PCT/EP 99/07670

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