METHOD OF INFLUENCING TOBACCO SMOKE AROMA

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6 Claims

ABSTRACT OF THE DISCLOSURE

A method of influencing the smoke flavor or aroma of tobacco by adding to the unsmoked tobacco a flavoring compound having the general formula

\[ R_1 - C\equiv C - R_2 \]

in which \( R_1 \) is hydroxy or methoxy, \( R_2 \) is hydroxy or methoxy, or \( R_1 - R_2 \) represent the group

\[ O-CH_2-O \]

The present invention relates to methods of influencing the flavor of tobacco smoke. The invention is more particularly applicable to natural tobaccos such as cigarette tobaccos, but can also be used in the case of synthetic tobaccos such as sheet made from tobacco waste products, or from a carrier substance, preferably not produced from the tobacco plant, which is impregnated with selected material so as to have the flavor of a natural tobacco when smoked. In this case it is important the carrier substance should not burn to produce materials which would impair the smoking quality.

The German patent specification 1,131,580 makes the proposal of making synthetic or artificial tobacco flakes by selecting a suitable tobacco mixture, extracting it successively with water and alcohol, then producing a combined dry extract from the two extraction steps, and mixing the dry extract with a carrier substance such as cellulose or methyl-cellulose. The carrier substance is then made into fibers similar to those of natural tobacco.

In this way synthetic tobacco is produced which has aroma- and flavor-producing materials from the natural tobacco so that it can be enjoyed by smokers. It is free from certain woody or cellulose materials of natural tobacco.

However, this previous invention does not relate to the systematic adjustment of the smoking flavor of a natural tobacco by adding or removing substances, a topic which is dealt with by the U.S. Patent 3,174,485. This patent describes the addition to cigarette tobacco, the filter or wrapper of a controlled amount of specific flavor enhancers which may be derived from the volatile material distilled from a natural tobacco.

A further object of the invention is to provide a method of supplementing flavor-influencing substances already in a tobacco.

Yet a further object is to provide a method whereby more expensive components in a tobacco mixture may be decreased without the smoke flavor or aroma being impaired.

The present invention consists in a method of influencing the smoke flavor quality of a tobacco characterized by the step of adding to the unsmoked tobacco a flavoring material which occurs in the smoke of natural tobacco, the compound having the general formula

\[ O-CH_2-O \]

in which \( R_1 \) is hydroxy or methoxy, \( R_2 \) is hydroxy or methoxy, or \( R_1 - R_2 \) represent the group

\[ O-CH_2-O \]

Those compounds having the desired flavor occur in natural tobacco and can be separated therefrom by steam distillation. In addition, they can also be produced synthetically.

The quantity of the materials added to the tobacco can vary within wide limits, for instance, between 5 and 800 p.p.m. or between 5 and 500 p.p.m., as may be required to influence the aroma or flavour of the tobacco in the required manner.

In accordance with the invention, the flavoring substance added to the tobacco is a 3,4-vinylbenzene with substituents selected from the following group: hydroxy-, methoxy-, methylenedioxy-, Vinylbenzenes can be used in which the vinyl group has been hydrated to the corresponding secondary alcohol group. The following compounds can be used between 5 and 500 p.p.m. (preferably 10—100 p.p.m.)

1-hydroxy-2-methoxy-4-vinylbenzene
1-hydroxy-2-methoxy-5-vinylbenzene
1,2-dimethoxy-4-vinylbenzene
1,2-methylene-dioxy-4-vinylbenzene
4-hydroxy-5-methoxy-a-pheno-ethyl alcohol.

The quantity added to the tobacco can also be as low as to be between 2 and 120 p.p.m.

When tobacco is to be used as a source of the substances to be added, the isolation of the substances is preferably carried out by using steam distillation. The substances are then separated from the distillate using known methods. Such for example, as described in the journal "Helvatica Chimica Acta 50" 65, 628 ff.

What I claim is:

1. A method of influencing the smoke flavor of a tobacco characterized by the step of adding to the unsmoked tobacco a very small amount of a flavoring compound which occurs in the smoke of natural tobacco, the compound having the general formula

\[ O-CH_2-O \]

in which \( R_1 \) is hydroxy or methoxy, \( R_2 \) is hydroxy or methoxy, or \( R_1 - R_2 \) represent the group

\[ O-CH_2-O \]

2. A method in accordance with claim 1 in which 1-hydroxy-2-methoxy-4-vinylbenzene is used.

3. A method in accordance with claim 1 in which 1-hydroxy-2-methoxy-5-vinylbenzene is used.

4. A method in accordance with claim 1 in which 1,2-dimethoxy-4-vinylbenzene is used.

5. A method in accordance with claim 1 in which 1,2-methylene-dioxy-4-vinylbenzene is used.
6. The method in accordance with claim 1 in which the flavouring compound is isolated from a tobacco steam distillate.

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MELVIN D. REIN, Primary Examiner

U.S. Cl. X.R.