LIQUID TOBACCO COMPOSITIONS

This disclosure relates to liquefied tobacco, particularly tobacco dissolved in an ionic liquid, and regeneration of liquefied tobacco into solid tobacco products.

Extensive research has been conducted on tobacco and tobacco constituents. In many cases, it has been determined that it is desirable to reduce the levels of certain constituents, such as tobacco-specific nitrosamines, in the final tobacco product. Current methods for reducing levels of such constituents of tobacco include incubating tobacco with a solvent in which the constituents are soluble to extract the constituents from the tobacco. However, such processes tend to be inefficient due, at least in part, to poor penetration of the solvent into the tobacco or the inability to fully extract constituents bound to non-soluble portions of the tobacco, such as cellulose. More efficient removal of constituents of tobacco, such as tobacco-specific nitrosamines, would be desirable.

However, increased efficiency or effectiveness of removal of such constituents may result in the removal of desired constituents of tobacco or may negatively affect desired physical or chemical properties of the tobacco. Accordingly, it may be desirable to produce tobacco or tobacco products having reduced amounts of selected constituents, while retaining desired constituents or characteristics.

In one aspect of the present disclosure, there is provided a method comprising dissolving tobacco in an ionic liquid to obtain a liquid tobacco composition, regenerating the tobacco to produce a regenerated tobacco material and separating the regenerated tobacco material from the liquid tobacco composition.

Another aspect relates to an article formed from regenerated tobacco material obtained from the disclosed methods.

Yet another aspect relates to a smoking article comprising the tobacco substrate as disclosed herein.

As described herein, tobacco is completely or partially dissolved in a solvent, such as an ionic liquid. Once the tobacco is dissolved, selected constituents of the tobacco may be removed. Once the selected constituents are removed, the tobacco may be regenerated. The constituents and characteristics of the regenerated tobacco material may be controlled to provide tobacco or a tobacco articles with desired characteristics.

Solutions or suspensions of fully or partially dissolved tobacco may provide one or more advantages relative to solid tobacco particles. For example and as described above, the ability to remove selected constituents of tobacco may be enhanced. Such solutions or suspensions may additionally or alternatively allow for more thorough chemical analysis of

tobacco constituents, which analysis is currently limited to solid particles through burning or extraction.

Regeneration of tobacco from such solutions or suspensions may also provide one or more advantages relative to tobacco that it not dissolved. By way of example, the physical or chemical properties of the resulting tobacco, such as size, shape, taste, etc., may be controlled through the regeneration process, allowing for the production of tobacco or tobacco articles with tailored properties.

Tobacco may be dissolved in any suitable solvent. It has been found that ionic liquids may serve as suitable solvents for complete or partial dissolution of tobacco,