filter generally has a high water absorption and retention property that can result in a dry harsh taste in the mainstream smoke.

It would be desirable to provide smoking articles that include filter elements formed of sheets of paper that can maintain the sensory perception of conventional cellulose acetate tow filter elements. It would be desirable to provide a smoking article that included filter elements formed of sheets of paper that did not readily absorb water or moisture found in the mainstream smoke or aerosol passing through the smoking article. It would also be desirable that the paper filter element not affect the taste of the smoke or aerosol generated by the smoking article.

According to a first aspect, a smoking article includes a smokable material and a filter comprising filtration material that is downstream of the smokable material. The filtration material comprises a hydrophobic cellulosic material with hydrophobic groups covalently bonded to the cellulosic material. The hydrophobic cellulosic material has a water contact angle of at least about 90 degrees or at least about 100 degrees and a Cobb measurement value (at 60 seconds) of about 40 g/m2 or less, or about 35 g/m2 or less.

In another aspect, a filter for a smoking article comprises layers of a crimped hydrophobic cellulosic material that are packed to form a cylindrical filter element.

In another aspect, there is disclosed a filter for a smoking article comprising: a continuous sheet of hydrophobic cellulosic material distributed through a cross-section of a cylindrical filter element, the continuous sheet of hydrophobic cellulosic material has a water contact angle of at least about 90 degrees or at least about 100 degrees and a Cobb measurement value (at 60 seconds) of about 40 g/m^2 or less, or about 35 g/m^2 or less.

In a further aspect, the filter for a smoking article is formed by a process comprising the steps of: applying a liquid composition comprising a fatty acid halide to a surface of the sheet of cellulosic material, and maintaining the surface at a temperature of about 120°C to about 180°C. The fatty acid halide reacts in-situ with protogenic groups on the sheet of cellulosic material resulting in the formation of fatty acid esters and a hydrophobic sheet of cellulosic material. Then the hydrophobic sheet of cellulosic material is crimped and formed into a filter element and incorporated into a smoking article.

Smoking articles that include a sheet of hydrophobic cellulosic material can reduce wetting or absorption of water or moisture from mainstream smoke or aerosol that is passing through the filter. As a result, the filtration material does not negatively affect the taste of the mainstream smoke or aerosol as perceived by a consumer consuming the smoking article. Smoking article filters formed of these sheets of hydrophobic cellulosic material can degrade more rapidly than the cellulose acetate tow that is currently utilized in cigarette filters.

Smoking articles in accordance with the present disclosure may be filter cigarettes or other smoking articles in which tobacco material forming a tobacco substrate or tobacco rod is combusted to form mainstream smoke. A tipping wrapper joins a filter to the tobacco substrate or rod. The term “smoking article” is used here indicates cigarettes, cigars, cigarillos and other