CLAIMS

1. A smoking article comprising:
a smokable material; and
a filter downstream of the smokable material and comprising filtration material, the filtration material comprising a sheet of hydrophobic cellulosic material comprising hydrophobic groups covalently bonded to the cellulosic material.

2. The smoking article according to claim 1, wherein the sheet of hydrophobic cellulosic material is crimped along a longitudinal direction of the sheet and gathered transversely to form a cylindrical filter element.

3. The smoking article according to claim 1 or 2, wherein the crimped sheet of hydrophobic cellulosic material comprises parallel and co-extensive ridges and valleys along a longitudinal length of the crimped sheet, wherein the pitch measured in a transverse direction that is perpendicular to the direction of travel is about 1 mm.

4. The smoking article according any of the preceding claims, wherein the width of the sheet of hydrophobic cellulosic material is about 150 mm to about 250 mm.

5. The smoking article according any of the preceding claims, wherein diameter of the filter is about 4.5 mm to about 9.5 mm.

6. The smoking article according to any of the preceding claims, wherein the sheet of hydrophobic cellulosic material has a water contact angle of at least about 90 degrees, or at least about 100 degrees.

7. The smoking article according to any of the preceding claims, wherein the sheet of hydrophobic cellulosic material exhibits a Cobb water absorption measurement value (at 60 seconds) of about 40 g/m^2 or less, or about 35 g/m^2 or less.

8. The smoking article according to any of the preceding claims, wherein the sheet of hydrophobic cellulosic material has a basis weight in a range from about 20 to about 60 g/m^2 or from about 30 to about 45 g/m^2, and the hydrophobic groups have a basis weight in a range from about 0.1 to about 5 g/m^2, or from about 0.1 to about 3 g/m^2.

9. The smoking article according to any of the preceding claims, wherein the hydrophobic group comprises a fatty acid or fatty acid ester.

10. The smoking article according to any of the preceding claims, wherein the sheet of hydrophobic cellulosic material comprises fatty acid esters of cellulose.

11. The smoking article according to any of preceding claims, wherein the hydrophobic group is covalently bonded to the cellulosic material on the sheet of hydrophobic cellulosic material.

12. The smoking article according to claim 11, wherein the hydrophobic group is covalently bonded to the cellulosic material by diffusion of a fatty acid halide on its surface without using a solvent.

13. The smoking article according to claim 12, wherein the fatty acid halide comprises palmitoyl chloride, stearoyl chloride, behenoyl chloride, or a mixture of palmitoyl chloride and stearoyl chloride.

14. A filter for a smoking article comprising:

a continuous sheet of hydrophobic cellulosic material distributed through a cross-section of a cylindrical filter element, wherein the continuous sheet of hydrophobic cellulosic material has hydrophobic groups covalently bonded to protogenic groups on the cellulosic material.

15. The filter according to claim 14, wherein 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.

16. The filter according to claim 14 or 15, wherein the continuous sheet of hydrophobic cellulosic material is crimped is arranged in layers that are packed to form a cylindrical filter element.