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- d) concurrently electrophoretically separating constituents of said solution by means of differential voltage.
- 10. The method of claim 9 wherein said pressure differential is adjusted during said separating step.
- 11. The method of claim 9 further including the step of 5 detecting spatial separation of said constituents.
- 12. A capillary electrophoresis system comprising:
 - a) a capillary tube having an inlet end for introducing a sample solution and an outlet end, in which the internal diameter of the capillary ranges from 0.010 to 0.150 10 mm and the double-layer thickness ranges from 0.2 to 10 nm, such that a ratio between an internal radius of the capillary and a double-layer thickness is at least 500;
 - b) means for inducing electroosmotic flow of a solution 15 within said capillary tube;

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- c) means for adjusting the electroosmotic flow;
- d) forward and reverse bulk flow driver effective for selectively driving the bulk flow in both a forward and reverse direction across the length of said capillary through application of differential pressure selectively in a forward and in a reverse bulk flow direction between said inlet end and said outlet end;
- e) means for adjusting said pressure differential;
- f) means for concurrently applying a potential gradient across the length of said capillary tube to induce spatial separation by electrophoretic migration of constituents of said sample solution; and
- g) means for detecting spatial separation of said constituents.

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