

**61.** An apparatus according to claim 60, wherein said mass calibration compounds form ions in said mixture which serve as an internal calibration standard when mass analyzing said mixture.

**62.** An apparatus for analyzing chemical species comprising:

- a. an ion source operated substantially at atmospheric pressure which produces ions from sample bearing solutions,
- b. at least two probes from which at least two solutions are introduced into said ion source;
- c. at least two means for delivering said solutions to said probes;
- d. at least one means for producing ions from at least two of said solutions;
- e. means for mixing said ions produced from least two of said solutions; and
- f. a means for mass analyzing said ions produced.

**63.** An apparatus according to claim 62, wherein said means for delivering said solution includes a liquid chromatography system.

**65.** An apparatus according to claim 62, wherein said at least two means for delivering said solutions includes at least two liquid chromatography systems.

**66.** An apparatus according to claim 62, wherein said means for delivering said solution includes a capillary electrophoresis system.

**67.** An apparatus according to claim 62, wherein said at least two means for delivering said solutions includes at least two capillary electrophoresis systems.

**68.** An apparatus according to claim 62, wherein said means for delivering said solution includes a liquid pump.

**69.** An apparatus according to claim 62, wherein said means for delivering said solution includes an Electrospray microtip.

**70.** An apparatus according to claim 62, wherein said means for delivering said solution includes a solution reservoir.

**71.** An apparatus according to claim 62, wherein said means for delivering said solution includes a pressurized solvent reservoir.

**72.** An apparatus according to claim 62, wherein said means for delivering said solution includes at least one liquid delivery system with injector valve.

**73.** An apparatus according to claim 62, wherein said at least two means for delivering said solutions includes at least two liquid delivery system each with injector valve.

**74.** An apparatus according to claim 62, wherein said at least two means for delivering said solutions includes at least one liquid delivery system with injector valve and at least one liquid chromatography system.

**75.** An apparatus for analyzing chemical species comprising:

- a. an ion source which produces ions from sample bearing solutions;
- b. at least two probes from which at least two solutions are introduced into said ion source;
- c. At least two means for delivering at least two of said solutions to said probes;

d. At least one said means comprising a chemical separation system for delivering at least one said solution;

e. at least one means for producing ions from at least two solutions delivered into said ion source; and

f. a means for mass analyzing said ions produced.

**76.** An apparatus according to claim 75, wherein said chemical separation system is a liquid chromatography system.

**77.** An apparatus according to claim 75, wherein said chemical separation system is a capillary electrophoresis system.

**78.** An apparatus according to claim 75, wherein said chemical separation system is a capillary electrophoresis chromatography system.

**79.** An apparatus according to claim 75, wherein said means comprising a chemical separation system comprises a liquid chromatography system and a capillary electrophoresis system.

**80.** An apparatus according to claim 75, wherein said means for producing ions comprises an Electrospray means.

**81.** An apparatus according to claim 75, wherein said means for producing ions comprises an Electrospray with nebulization assist means.

**82.** An apparatus according to claim 75, wherein said means for producing ions comprises an Atmospheric Pressure Chemical Ionization means.

**83.** An apparatus according to claim 75, wherein said means for producing ions comprises both an Electrospray and an Atmospheric Pressure Chemical Ionization means.

**84.** An apparatus according to claim 75, wherein said means for producing ions comprises an Inductively Coupled Plasma means.

**85.** An apparatus according to claim 75, wherein said means for delivering said solution includes at least one liquid delivery system with injector valve.

**86.** An apparatus according to claim 75, wherein said at least two means for delivering said solutions includes at least two liquid delivery system each with injector valve.

**87.** An apparatus according to claim 75, wherein said at least two means for delivering said solutions includes at least one liquid delivery system with injector valve and at least one liquid chromatography system.

**88.** An apparatus for analyzing chemical species comprising:

a. an ion source operated substantially at atmospheric pressure which produces ions from sample bearing solutions;

b. at least two probes from which at least two solutions are introduced into said ion source;

c. At least two means each comprising a chemical separation system each delivering solution to said probes;

d. at least one means for producing ions from at least two solutions delivered into said ion source; and

e. a means for mass analyzing said ions produced.

**89.** An apparatus according to claim 88, wherein said chemical separation system is a liquid chromatography system.

**90.** An apparatus according to claim 88, wherein said chemical separation system is a capillary electrophoresis system.