

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

92. An apparatus according to claim 88, wherein said at least two means for each comprising a chemical separation system comprises a liquid chromatography system and a capillary electrophoresis system.

93. An apparatus according to claim 88, wherein said means for producing ions comprises an Electrospray means.

94. An apparatus according to claim 88, wherein said means for producing ions comprises an Electrospray with nebulization assist means.

95. An apparatus according to claim 88, wherein said means for producing ions comprises an Atmospheric Pressure Chemical Ionization means.

96. An apparatus according to claim 88, wherein said means for producing ions comprises both an Electrospray and an Atmospheric Pressure Chemical Ionization means.

97. An apparatus according to claim 88, wherein said means for producing ions comprises an Inductively Coupled Plasma means.

98. A method for producing ions from solution comprising:

- a. utilizing an ion source operating substantially at atmospheric pressure, at least two probes configured in said ion source, and a vacuum system;
- b. introducing at least two solutions into said ion source through at least two probes;
- c. producing ions from at least two said solutions introduced through said at least two probes;
- d. mixing said ions produced; and
- e. delivering said mixture of ions produced into said vacuum system.

99. A method according to claim 98, wherein said ions are produced using Electrospray ionization.

100. A method according to claim 98, wherein said ions are produced using Electrospray ionization with nebulization assist.

101. A method according to claim 98, wherein said ions are produced using Atmospheric Pressure Chemical Ionization.

102. A method according to claim 98, wherein said ions are produced using both Electrospray and Atmospheric Pressure Chemical ionization.

103. A method according to claim 98, wherein said ions are produced using Inductively Coupled Plasma ionization.

104. A method according to claim 98, wherein said ions are mixed substantially at atmospheric pressure.

105. A method for analyzing chemical species comprising:

- a. utilizing an ion source operating substantially at atmospheric pressure, at least two probes configured in said ion source, and a mass analyzer;
- b. introducing at least two solutions into said ion source through at least two probes;
- c. producing ions from at least two said solutions introduced through said at least two probes;
- d. mixing said ions produced; and

e. mass analyzing said mixture of ions produced with said mass analyzer.

106. A method according to claim 105, wherein said ions are produced using Electrospray ionization.

107. A method according to claim 105, wherein said ions are produced using Electrospray ionization with nebulization assist.

108. A method according to claim 105, wherein said ions are produced using Atmospheric Pressure Chemical Ionization.

109. A method according to claim 105, wherein said ions are produced using both Electrospray and Atmospheric Pressure Chemical ionization.

110. A method according to claim 105, wherein said ions are produced using Inductively Coupled Plasma ionization.

111. A method according to claim 105, wherein said ions are mixed substantially at atmospheric pressure.

112. A method according to claim 105, wherein said ions are mass analyzed using, a Time-Of-Flight mass spectrometer.

113. A method according to claim 105, wherein said ions are mass analyzed using a Quadrupole mass spectrometer.

114. A method according to claim 105, wherein said ions are mass analyzed using an Ion Trap mass spectrometer.

115. A method according to claim 105, wherein said ions are mass analyzed using a Fourier Transform mass spectrometer.

116. A method according to claim 105, wherein said ions are mass analyzed using a Magnetic Sector mass spectrometer.

117. A method according to claim 105, wherein said ions are mass analyzed using a hybrid mass spectrometer.

118. A method according to claim 106, wherein said ions are Electrosprayed using a microtip.

119. A method for producing ions from solution comprising:

- a. utilizing an ion source operating substantially at atmospheric pressure, at least two probes configured in said ion source, and a vacuum system;
- b. introducing at least two solutions into said ion source through at least two probes;
- c. producing ions from at least two said solutions introduced into said ion source;
- d. fixing the position of said at least two probes when said ions are being produced from at least two of said solutions; and
- e. delivering said mixture of ions produced into said vacuum system.

120. A method according to claim 119, wherein said ions are produced using Electrospray ionization.

121. A method according to claim 119, wherein said ions are produced using Electrospray ionization with nebulization assist.

122. A method according to claim 119, wherein said ions are produced using Atmospheric Pressure Chemical Ionization.

123. A method according to claim 119, wherein said ions are produced using both Electrospray and Atmospheric Pressure Chemical ionization.

124. A method according to claim 119, wherein said ions are produced using Inductively Coupled Plasma ionization.