15. Apparatus as set forth in claim 14, wherein:

each continuously monitoring means comprises a specific conductivity monitor for monitoring the specific conductivity of a portion of the corresponding fluid sample stream, and, in response thereto, generating corresponding specific conductivity signals;

said cation chromatograph means comprises sample volume control means responsive to a cation chromatograph sample volume control means actuation signal;

said control means calculates a sample volume of the selected fluid sample stream selectively supplied to said ion chromatograph to be prepared for monitoring by said cation chromatograph sample volume control means in accordance with the monitored specific conductivity of the corresponding selected fluid sample stream and a predetermined equation relating specific conductivity to ion concentration in a fluid sample and generates the cation chromatograph sample volume control means actuator signal in accordance with the calculated sample volume;

said anion and organic acid chromatograph means each comprises sample volume control means responsive to corresponding anion and organic acid chromatograph sample volume control means actuator signals; and

said control means calculates a sample volume of the corresponding, altered fluid stream selectively supplied to said ion chromatograph and selectively provided to one of said anion and organic acid chromatograph means to be prepared for monitoring by said anion and organic acid chromatograph sample volume control means in accordance with the monitored cation conductivity of the corresponding altered fluid stream and a predetermined equation relating cation conductivity to ion concentration in a fluid sample and generates said anion and organic acid chromatograph sample volume control means actuator signals in accordance with the calculated sample volume.

16. Apparatus as set forth in claim 13, wherein each means for continuously monitoring comprises monitors for monitoring chemical characteristics of a portion of the fluid sample stream, the chemical characteristics being selected from the group of sodium, dissolved oxygen, hydrazine, ammonia, pH, and specific conductivity, and, in response thereto, generating corespondding continyous monitor signals.

17. Apparatus as set forth in claim 13, wherein said control means compares the monitored cation conductivity of each altered fluid sample stream with a cation conductivity alarm value and interrupts said predetermined sampling sequence if any of said monitored cation conductivities exceeds said cation conductivity alarm value to supply the altered fluid sample stream having a monitored cation conductivity exceeding said cation conductivity alarm value and the corresponding influent fluid sample stream to said ion chromatograph means.

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