

Title (en)
AUTOMATED CHEMICAL PROCESS CONTROL SYSTEM

Title (de)
AUTOMATISIERTES ANALYSESYSTEM FÜR CHEMISCHE PROZESSE

Title (fr)
SYSTEME AUTOMATISE DE COMMANDE DE PROCEDES CHIMIQUES

Publication
EP 1068373 A1 20010117 (EN)

Application
EP 99916615 A 19990409

Priority

- US 9907918 W 19990409
- US 8124098 P 19980409

Abstract (en)
[origin: WO9953121A1] A chemical delivery system for a liquid chemical having predetermined chemical constituents employs an analyser for determining the proportion of one of the predetermined chemical constituents in the liquid chemical to be delivered. Precise quanta of samples of the liquid chemical are delivered to the analyzer by a precision analyzer sample delivery arrangement in the form of an automated sample syringe. Information relative to the determination by the analyzer of the proportion of at least one of the predetermined chemical constituents in the liquid chemical to be delivered is stored in a controller, which may be implemented in a microcomputer. The controller then controls a replenisher that issues a precisely controlled quantity of the predetermined chemical constituent to the source of the liquid chemical. Analyses are repeated and subjected to checks on values and trends to ensure the result is accurate, reasonable, and repeatable. During titration analysis, multiple phases of operation are implemented to control the titration particularly near the end point to ensure accuracy. After each analysis, a cleanup procedure is implemented using a purge gas, such as air, and a rinse solvent, which forcibly clears out the prior sample. The sample syringe is repeatedly cycled until it too clears out the prior sample.

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C23F 1/08; **G01N 31/16**; **G05D 21/02**

IPC 8 full level
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Citation (search report)
See references of WO 9953121A1

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