

Title (en)
Chemical microanalyser.

Title (de)
Chemischer Mikro-Analysator.

Title (fr)
Microanalysateur chimique.

Publication
EP 0668500 A3 19980617 (DE)

Application
EP 95101811 A 19950210

Priority
DE 4405004 A 19940217

Abstract (en)
[origin: EP0668500A2] Chemical microanalyser for the dynamic multi-ion detection according to the difference measuring principle is claimed, in which the fluid to be analysed is reacted with carrier or calibrating fluids and the mixed and pure phases are ionometrically detected separately. The analyser consists of a chemical microsensor (12), microcapillaries (1) for fluid transport, and devices for handling the active fluid. The novelty is that, for fluid handling (moving, dosing), microfluid manipulators are arranged and consist of microdrop emitters connected via a closed chamber to a microfluid diode. Microfluid manipulators, pref., 2, are connected to each microsensor as injectors.

IPC 1-7
G01N 27/00; G01N 33/48; G01N 27/414; G01N 1/10; G01N 1/18

IPC 8 full level
B01L 3/00 (2006.01); **G01N 27/403** (2006.01); **G01N 33/483** (2006.01); **G01N 33/487** (2006.01); **B01L 3/02** (2006.01)

CPC (source: EP)
B01L 3/502715 (2013.01); **B01L 3/502738** (2013.01); **B01L 3/0268** (2013.01); **B01L 3/5025** (2013.01); **B01L 2200/027** (2013.01); **B01L 2200/148** (2013.01); **B01L 2300/0816** (2013.01); **B01L 2400/0406** (2013.01); **B01L 2400/0439** (2013.01)

Citation (search report)

- [A] US 5121132 A 19920609 - PAN ALFRED I [US], et al
- [A] EP 0025005 A1 19810311 - SCHALDACH MAX [DE]
- [DA] VAN DER SCHOOT B H ET AL: "A SILICON INTEGRATED MINIATURE CHEMICAL ANALYSIS SYSTEM", SENSORS AND ACTUATORS B, vol. B06, no. 1 / 03, 1 January 1992 (1992-01-01), pages 57 - 60, XP000276297
- [DA] EFFENHAUSER C S ET AL: "GLASS CHIPS FOR HIGH-SPEED CAPILLARY ELECTROPHORESIS SEPARATIONS WITH SUBMICROMETER PLATE HEIGHTS", ANALYTICAL CHEMISTRY, vol. 65, no. 19, 1 October 1993 (1993-10-01), pages 2637 - 2642, XP000413548
- [DA] MANZ A ET AL: "Miniaturized total chemical analysis systems: a novel concept for chemical sensing", 5TH INTERNATIONAL CONFERENCE ON SOLID-STATE SENSORS AND ACTUATORS AND EUROSensors III, MONTREUX, SWITZERLAND, 25-30 JUNE 1989, vol. B1, no. 1-6, ISSN 0925-4005, SENSORS AND ACTUATORS B (CHEMICAL), JAN. 1990, SWITZERLAND, pages 244 - 248, XP002062625

Cited by
EP0892678A4; EP0875755A1; US2012170608A1; US9016936B2; GB2416039A; GB2416039B; NL1008315C2; US6213735B1; WO9701085A1; US6649078B2; US6192768B1; US7619265B2; US8080152B2; WO9823376A1; WO9721381A3; WO2005048350A3; WO2004083843A1; WO9941606A1

Designated contracting state (EPC)
AT BE CH DE DK FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0668500 A2 19950823; **EP 0668500 A3 19980617**; DE 4405004 A1 19950824

DOCDB simple family (application)
EP 95101811 A 19950210; DE 4405004 A 19940217