

Title (en)

METHODS, DEVICES AND SYSTEMS FOR MONITORING TIME DEPENDENT REACTIONS

Title (de)

VERFAHREN, EINRICHTUNGEN UND SYSTEME ZUR ÜBERWACHUNG ZEITABHÄNGIGER REAKTIONEN

Title (fr)

PROCEDES, DISPOSITIFS ET SYSTEMES DESTINES A SURVEILLER DES REACTIONS DEPENDANTES DU TEMPS

Publication

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Application

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Abstract (en)

[origin: WO0157509A1] Methods for monitoring time dependent reactions that comprise providing a flow channel, typically microscale in dimension, flowing at least two reagents into the flow channel and varying the flow rate of the mixture through the flow channel. By increasing and/or decreasing the flow rate of the reagent mixture from the point of mixing to the point of detection, one alters the amount of reaction time, allowing monitoring reaction kinetics over time.

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Citation (search report)

- [X] WO 9967639 A1 19991229 - CALIPER TECHN CORP [US], et al
- [PX] WO 0051720 A2 20000908 - SYMYX TECHNOLOGIES INC [US]
- [X] KOPP M U ET AL: "CHEMICAL AMPLIFICATION: CONTINUOUS-FLOW PCR ON A CHIP", SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 280, May 1998 (1998-05-01), pages 1046 - 1048, XP002930052, ISSN: 0036-8075
- [X] SRINIVASAN R ET AL: "MICROMACHINED REACTORS FOR CATALYTIC PARTIAL OXIDATION REACTIONS", AICHE JOURNAL, NEW YORK, NY, US, vol. 43, no. 11, November 1997 (1997-11-01), pages 3059 - 3069, XP000905069, ISSN: 0001-1541
- [X] RAMACHANDRA SHAstry MC, LUCK SD, RODER H: "A Continuous-Flow Capillary Mixing Method to Monitor Reactions on the Microsecond Time Scale", BIOPHYSICAL JOURNAL, vol. 74, May 1998 (1998-05-01), pages 2714 - 2721, XP002391155
- See references of WO 0157509A1

Citation (examination)

- RIOS A, DE CASTRO MD, VALCARCEL M.: "Injection analysis with flow-gradient systems: a new approach to unsegmented flow techniques", TALANTA, vol. 32, no. 9, 1 September 1985 (1985-09-01), pages 845 - 850
- MURAKAMI Y ET AL: "INTEGRATION OF ENZYME-IMMOBILIZED COLUMN WITH ELECTROCHEMICAL FLOW CELL USING MICROMACHINING TECHNIQUES FOR A GLUCOSE DETECTION SYSTEM", ANALYTICAL LETTERS, TAYLOR & FRANCIS INC, US, vol. 65, 15 October 1993 (1993-10-15), pages 2731 - 2735, XP008001129, ISSN: 0003-2719
- ROBERT R HUDGINS ET AL: "A simple tubular reactor experiment", CHEMICAL EDUCATION ENGINEERING - LABORATORY, 31 December 1981 (1981-12-31), pages 26 - 28, XP055275807, Retrieved from the Internet <URL:http://ufdcimages.uflib.ufl.edu/AA/00/00/03/83/00069/AA00000383_00069_026.pdf> [retrieved on 20160527]

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