

Title (en)  
ANALYSIS OF FRAGMENTED GENOMIC DNA IN DROPLETS

Title (de)  
ANALYSE FRAGMENTIERTER GENOMISCHER DNA IN TRÖPFCHEN

Title (fr)  
ANALYSE D'ADN GÉNOMIQUE FRAGMENTÉ DANS DES GOUTTELETTES

Publication  
**EP 2635708 A4 20141029 (EN)**

Application  
**EP 11838712 A 20111101**

Priority

- US 97682710 A 20101222
- US 40910610 P 20101101
- US 2011058854 W 20111101

Abstract (en)  
[origin: WO2012061442A1] Method of analyzing genomic DNA. Genomic DNA including a target may be obtained. The genomic DNA may be fragmented volitionally to produce fragmented DNA. The fragmented DNA may be passed through a droplet generator to generate aqueous droplets containing the fragmented DNA. An assay may be performed on the droplets to determine a level of the target. In some embodiments, the droplets may contain the genomic DNA at a concentration of at least about five nanograms per microliter, the droplets may be generated at a droplet generation frequency of at least about 50 droplets per second, the droplets may have an average volume of less than about 10 nanoliters per droplet, the droplets may be generated at a flow rate of greater than about 50 nanoliters per second, or any combination thereof.

IPC 8 full level  
**C12Q 1/68** (2006.01)

CPC (source: EP)  
**C12Q 1/686** (2013.01)

Citation (search report)

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- [Y] RYAN TEWHEY ET AL: "Microdroplet-based PCR enrichment for large-scale targeted sequencing", NATURE BIOTECHNOLOGY, vol. 27, no. 11, 1 November 2009 (2009-11-01), pages 1025 - 1031, XP055103848, ISSN: 1087-0156, DOI: 10.1038/nbt.1583
- [Y] "Application Note: Targeted Sequencing of 4000 Exons Using the RainDance Technologies Sequence Enrichment Assay", APPLICATION NOTE FROM RAINDANCE, 2009, XP055138343
- [A] ZHISHAN HUA ET AL: "Multiplexed Real-Time Polymerase Chain Reaction on a Digital Microfluidic Platform", ANALYTICAL CHEMISTRY, vol. 82, no. 6, 15 March 2010 (2010-03-15), pages 2310 - 2316, XP055138297, ISSN: 0003-2700, DOI: 10.1021/ac902510u
- See references of WO 2012061442A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
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DOCDB simple family (application)  
**US 2011058854 W 20111101**; AU 2011323507 A 20111101; CA 2816702 A 20111101; CN 201180052831 A 20111101; EP 11838712 A 20111101; JP 2013537769 A 20111101; SG 2013033238 A 20111101