

Title (en)  
HIGH-THROUGHPUT ELECTROPHYSIOLOGICAL MEASUREMENT SYSTEM

Title (de)  
ELEKTROPHYSIOLOGISCHES MESSSYSTEM MIT HOHEM DURCHSATZ

Title (fr)  
SYSTEME DE MESURE ELECTROPHYSIOLOGIQUE DE GRANDE CAPACITE

Publication  
**EP 1434850 A2 20040707 (EN)**

Application  
**EP 02780275 A 20020905**

Priority  

- US 0228398 W 20020905
- US 31711201 P 20010905
- US 0216122 W 20020521
- US 38319602 P 20020522

Abstract (en)  
[origin: WO03021230A2] Systems, including apparatus and methods, for performing electrophysiological measurements on membranous samples, including living cells, isolated cell fragments (such as organelles), and/or artificial membranes (such as vesicles). The apparatus may include a high-throughput electrophysiological measurement system, and components thereof. This measurement system may include, among others, (1) a fluidics head for transferring samples and/or other compounds to a perforated measurement substrate, (2) a pressure-regulated plenum system for positioning samples on the substrate and subsequently forming a high-resistance electrical seal, (3) an activation system (such as a computer-controlled pulsed UV illumination module) for activating caged compounds, (4) an electronics head for applying and/or measuring voltage and/or current, and/or (5) a computer-controlled analysis system for collecting and/or analyzing data. The methods may include methods for performing high-throughput electrophysiological measurements on transporters and/or voltage or ligand-gated ion channels, sequentially and/or simultaneously.

IPC 1-7  
**C12M 1/42; G01N 27/416**

IPC 8 full level  
**G01N 33/487** (2006.01); **G01N 35/00** (2006.01); **G01N 35/10** (2006.01)

CPC (source: EP)  
**G01N 33/48728** (2013.01); **G01N 2035/00237** (2013.01); **G01N 2035/1034** (2013.01)

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