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(54) **Title:** METHODS AND DEVICES FOR THE ISOLATION OF SUBCELLULAR COMPONENTS

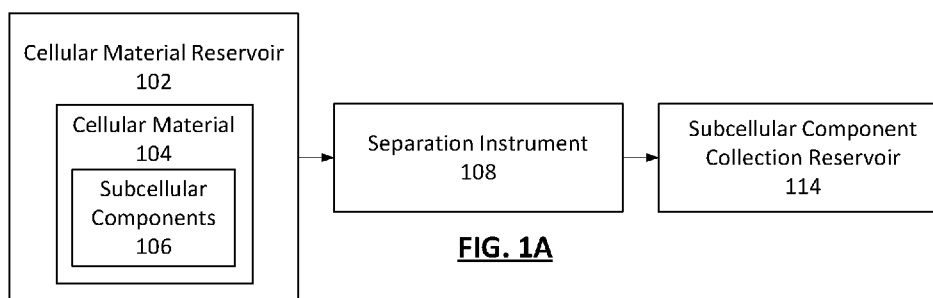


FIG. 1A

(57) **Abstract:** One aspect of the invention provides an apparatus for isolating one or more subcellular components including a cell disruption reservoir that generates at least one of a phase change, a thermal change, a physical contact force, an ultrasonic frequency, an osmotic change, a pressure change, a photothermal pulse, a magnetic field, an electromagnetic field, an electric field, and an electrical pulse through the reservoir and a separation instrument configured to specifically isolate the subcellular components based on one or more parameters selected from at least one of density, charge/pH, dielectric polarization, magnetic attraction, spectral dispersion, spectral refraction, spectral diffraction, hydrophobicity, hydrophilicity, structure (presence or absence of a structural feature), function (migration), affinity or binding, and pressure.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - A61N 7/02 (2019.01)
 CPC - A61B 17/320068, A61B 2017/320078, A61B 2018/00291

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History Document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History Document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History Document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 2006/0266715 A1 (Loewy) 30 November 2006 (30.11.2006) entire document especially Abstract, para[0015],[0063],[0064],[0066],[0077],[0079],[0137],[0202]	1, 3-11 ----- 2
Y	US 2016/0017340 A1 (The Regents of the University of California) 21 January 2016 (21.01.2016) entire document especially Abstract, para[0083],[0086]	2
A	Altendorf et al. "Osmotic Stress", EcoSal Plus 2009 3(2) August 2009, Abstract	4
A	US 6,214,617 B1 (Herman) 10 April 2001 (10.04.2001) entire document especially Abstract	1-11

Further documents are listed in the continuation of Box C. See patent family annex.

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