

Title (en)
COULOMETRIC TITRATION CELL

Title (de)
COULOMETRISCHE TITRATIONSZELLE

Title (fr)
CELLULE DE TITRAGE COULOMÉTRIQUE

Publication
EP 3036536 A1 20160629 (DE)

Application
EP 14747947 A 20140807

Priority

- EP 13180899 A 20130819
- EP 2014066953 W 20140807
- EP 14747947 A 20140807

Abstract (en)
[origin: WO2015024787A1] Coulometric titration cell and a measurement arrangement comprising a coulometric titration cell, comprising a first electrochemical half-cell having a first electrode (205, 801, 7, 407, 507, 607, 907); a second housing (1, 401, 501, 601, 801, 901) comprising a second electrochemical half-cell having a second electrode (3, 403, 503, 603, 803, 903) and an electrolyte (2, 302, 402, 502, 602, 802, 902) into which the second electrode (3, 403, 503, 603, 803, 903) is immersed; a redox system having at least one first and second redox partner; at least one diaphragm (4, 604, 804) arranged between the first and second electrochemical half-cell; and a circuit (11, 411, 511) incorporating the first and second electrochemical half-cell; wherein, in operation, at least the diaphragm (4, 604, 804) and the first electrode (7, 407, 507, 607, 907) are in contact with the sample (14); characterized in that the second housing (1, 401, 501, 601, 801, 901) is closed, such that charge and mass transfer is possible only via the diaphragm (4, 604, 804); in that the electrolyte (2, 302, 402, 502, 602, 802, 902) is solid or consolidated and comprises a first redox partner, and in that the first and second redox partner of the redox system are chosen such that evolution of gas within the coulometric titration cell in operation is very substantially suppressed.

IPC 8 full level
G01N 27/44 (2006.01); **G01N 27/42** (2006.01); **G01N 31/16** (2006.01)

CPC (source: EP US)
G01N 27/44 (2013.01 - EP US); **G01N 27/44704** (2013.01 - US); **G01N 27/44756** (2013.01 - US); **G01N 31/164** (2013.01 - EP US)

Citation (search report)
See references of WO 2015024787A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2840390 A1 20150225; CN 105474009 A 20160406; CN 105474009 B 20190329; EP 3036536 A1 20160629; JP 2016528507 A 20160915;
JP 6420343 B2 20181107; US 10352896 B2 20190716; US 2016161447 A1 20160609; WO 2015024787 A1 20150226

DOCDB simple family (application)
EP 13180899 A 20130819; CN 201480045758 A 20140807; EP 14747947 A 20140807; EP 2014066953 W 20140807;
JP 2016535400 A 20140807; US 201615046083 A 20160217