



(12) Patent specification

(10) SE 540 063 C2

(21) Patent application number:	1650348-4	(51) Int.Cl.:	
(45) Grant of patent:	2018-03-13	A61N 1/30	(2006.01)
(41) Available to the public:	2017-09-16	G01N 33/487	(2006.01)
(22) Filing date:	2016-03-15	B01L 3/00	(2006.01)
(24) Effective date:	2016-03-15		
(30) Priority data:	---		

- (73) Patentee: OBOE IPR AB, Box 1891, 581 18 Linköping SE
 (72) Inventor: Amanda Jonsson, Norrköping SE
 Theresia Arbring Sjöström, Linköping SE
 Daniel Simon, Linköping SE
 Magnus Berggren, Norrköping SE
 (74) Agent: Awapatent AB, Junkersgatan 1, 582 35, LINKÖPING SE
 (54) Title: Ion conductive drug delivery device with controlled delivery electrode
 (56) Cited documents: ---
 (57) Abstract:

A device (100) comprising a first electrode (104) provided at or in a source electrolyte (101), and at least one ion conductive channel (103), wherein said first electrolyte (101) is arranged at a first portion (201) of the ion conductive channel (103), and a second electrode (105) provided in a target electrolyte (102), wherein said target electrolyte (102) is arranged at a second portion (202) of the ion conductive channel (103), and wherein said first and second electrodes provides an electrical control of an ion flow through the ion conductive channel (103), wherein the device further comprises at least one controlled delivery electrode (114) arranged adjacent to or in the second portion of the ion conductive channel (103), wherein said first and second electrodes further are arranged to provide an electrical control of an ion flow through the controlled delivery electrode (114) to the target electrolyte (102), and wherein said controlled delivery electrode (114) is adapted to deliver ions from said ion conductive channel (103) to said target electrolyte (102), and wherein said controlled delivery electrode (114) comprising an electronically and ionically conductive material (107) and an electrical contact (106), wherein said controlled delivery electrode (114) is arranged in ionic contact with, and between, said ion conductive channel (103) and the target electrolyte (102), wherein said electrical contact (106) provides for an electrical control potential (V_{CDE}) over the controlled delivery electrode (114) to control an ion flow between the controlled delivery electrode (114) and the target electrolyte (102).

