

Title (en)

ELECTROLYTIC REACTOR SUCH AS FUEL CELL WITH ZEOLITE MEMBRANE

Title (de)

ELEKTROLYTISCHER REAKTOR, WIE BRENNSTOFFZELLE MIT ZEOLITHMEMBRAN

Title (fr)

REACTEUR ELECTROLYTIQUE, TEL QU'UNE PILE A COMBUSTIBLE, DOTE D'UNE MEMBRANE EN ZEOLITE

Publication

**EP 0986832 A1 20000322 (EN)**

Application

**EP 98921610 A 19980514**

Priority

- GB 9801380 W 19980514
- GB 9709742 A 19970514
- GB 9723840 A 19971113

Abstract (en)

[origin: WO9852243A1] An electrochemical reactor such as a fuel cell has a zeolite membrane (7) separating the anode (4) and cathode (5) compartments which allows the passage of ions through the membrane to carry an electric current, but prevents the passage of fuel molecules etc. through the membrane which might poison the catalyst used in the fuel cell. It is useful in methanol fuel cells using a basic electrolyte such as a carbonate salt and there can be a second zeolite membrane which prevents escape of methanol into the atmosphere which enables the fuel cell to operate at higher temperatures and hence be more efficient.

IPC 1-7

**H01M 8/08**; **H01M 8/10**; **H01M 8/02**; **C25B 5/00**

IPC 8 full level

**C25B 5/00** (2006.01); **C25B 13/04** (2006.01); **H01M 4/92** (2006.01); **H01M 8/02** (2006.01); **H01M 8/08** (2006.01); **H01M 8/10** (2006.01)

CPC (source: EP KR)

**C25B 5/00** (2013.01 - EP KR); **C25B 9/19** (2021.01 - KR); **C25B 13/04** (2013.01 - EP KR); **H01M 8/0293** (2013.01 - EP KR); **H01M 8/08** (2013.01 - EP KR); **H01M 8/1009** (2013.01 - EP KR); **H01M 8/1016** (2013.01 - EP KR); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

See references of WO 9852243A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 9852243 A1 19981119**; AU 741520 B2 20011206; AU 7439998 A 19981208; CA 2289607 A1 19981119; CN 1255248 A 20000531; EP 0986832 A1 20000322; JP 2002500806 A 20020108; KR 20010012525 A 20010215

DOCDB simple family (application)

**GB 9801380 W 19980514**; AU 7439998 A 19980514; CA 2289607 A 19980514; CN 98804972 A 19980514; EP 98921610 A 19980514; JP 54893098 A 19980514; KR 19997010480 A 19991112