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Albert [NL/NL]; Oude Bovendwarsweg 31, NL-8084 JD 't Harde (NL).

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(74) Agents: VAN KAN, J., J., H. et al.; Algemeen Octrooibureau, World Trade Center, Pastoor Petersstraat 160, NL-5612 LV Eindhoven (NL).

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(71) Applicant (*for all designated States except US*):
ZILVOLD-TIELEMAN HYDROTECHNIEK B.V.
[NL/NL]; Broekhuizerweg 4, NL-6983 BM Doesburg (NL).

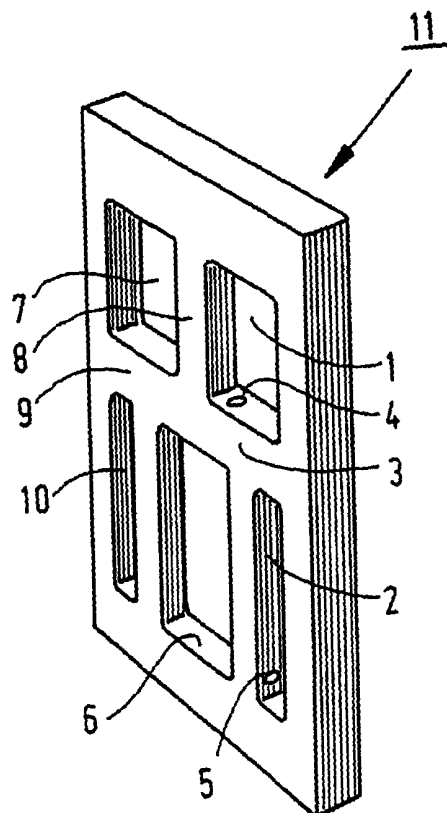
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(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **ZILVOLD, Gerrit,**

[Continued on next page]

(54) Title: A CELL ELEMENT FOR ELECTROLYTIC CELL, ELECTROLYTIC CELL AND ELECTROLYTIC PROCESS



(57) Abstract: The present invention relates to a cell element (11) for use in a device for subjecting a chloride compound to an electrolytic process, wherein several electrolytic cells are electrically connected in series, said cells consisting of said cell element, a bipolar electrode and a diaphragm or a semi-permeable membrane, wherein said cell element includes an electrolyte space (1, 2) and an electrode space. The invention is characterized in that the electrolyte space (1, 2) and the electrode space (6) are in direct communication with each other, wherein the electrolyte space is subdivided into a first and a second electrolyte chamber by a dividing element (3).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C25B9/00

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)

IPC 7 C25B

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 371 433 A (E. N. BALKO) 1 February 1983 (1983-02-01) column 3, line 8 - line 48 figure 2 ---	1,3-6,8, 9,11,12, 17
Y	WO 98 32900 A (ZILVOLD-TIELEMAN HYDROTECHNIEK B.V.) 30 July 1998 (1998-07-30) cited in the application page 9 -page 11; claims 1-20 figure 1 ---	1,3-6,8, 9,11,12, 17
A	GB 761 823 A (PINTSCH BAMAG AKTIENGESELLSCHAFT) 21 November 1956 (1956-11-21) page 2, line 23 -page 3, line 17 -----	1



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P. B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel: (+31-70) 340-2040. Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Groseiller, P

INTERNATIONAL SEARCH REPORT

Information on patent family members

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PC 1/NL 00/00846

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4371433 A	01-02-1983	DE 3140347 A	02-09-1982
		FR 2491957 A	16-04-1982
		GB 2085475 A,B	28-04-1982
		IT 1139980 B	24-09-1986
		JP 1047555 B	16-10-1989
		JP 1564443 C	12-06-1990
		JP 57094581 A	12-06-1982
		US 4533455 A	06-08-1985
WO 9832900 A	30-07-1998	NL 1005081 C	27-07-1998
		AU 5682198 A	18-08-1998
		EP 0958407 A	24-11-1999
GB 761823 A		NONE	