

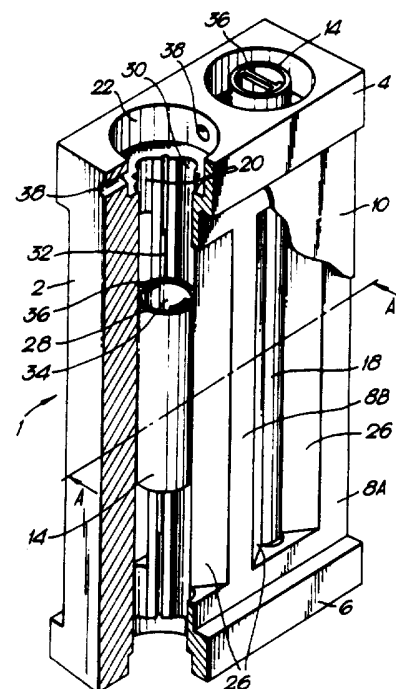


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : C25B 9/00, 1/00	A3	(11) International Publication Number: WO 93/11281 (43) International Publication Date: 10 June 1993 (10.06.93)
(21) International Application Number: PCT/GB92/02157 (22) International Filing Date: 20 November 1992 (20.11.92) (30) Priority data: 9125680.0 3 December 1991 (03.12.91) GB (71) Applicant: IMPERIAL CHEMICAL INDUSTRIES PLC [GB/GB]; Imperial Chemical House, Millbank, London SW1P 3JF (GB). (72) Inventor: BULLEN, Shaun ; 7a Beswicks Road, Winning- ton, Northwich, Cheshire CW8 1AP (GB). (74) Agents: COLLINGWOOD, Anthony, Robert et al.; ICI Group Patents Services Dept., P.O. Box 6, Shire Park, Welwyn Garden City, Hertfordshire AL7 1HD (GB).		(81) Designated States: AU, CA, FI, JP, KR, NO, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i> (88) Date of publication of the international search report: 8 July 1993 (08.07.93)

(54) Title: ELECTROCHEMICAL CELL**(57) Abstract**

An electrolytic cell having first (14) and second (10) electrode structures in which the first electrode structure has a surface area (28) which is in heat transfer relation with the electrolyte and part only of said surface area (18) is electrolytically active. The first electrode structure may be an anode structure suitable for use in the production of ozone and the remaining part (28) of the surface area of the anode structure may be rendered electrolytically inactive by masking this part from the cathode structure. The masked surface of the anode structure is maintained in heat transfer relation with the electrolyte.



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INTERNATIONAL SEARCH REPORT

International Application No PCT/GB 92/02157

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC Int.C1.5 C 25 B 9/00 C 25 B 1/00		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.C1.5	C 25 B	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category ^o	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	DE,A,4008612 (FABER PETER) 19 September 1991 see column 2, line 45 - column 3, line 9; figures 1,2 ---	1, 3, 5, 6 , 27, 32, 33
X	DE,A,2023751 (MITSUBISHI JUKOGYO K.K.) 7 January 1971 see page 2, line 30 - line 33; page 9, line 16 - page 10, line 12; figures 13-16 ---	1-4, 15, 19
A	PATENT ABSTRACTS OF JAPAN vol. 013, no. 367 (C-626)15 August 1989 & JP,A,11 23 086 (JAPAN STORAGE BATTERY CO LTD) 16 May 1989 see abstract ---	26, 27
A	US,A,3575839 (MELNIKOV-EIKHENVALD) 20 April 1971 see column 2, line 26 - line 29; figure 5 -----	22
^o Special categories of cited documents : ¹⁰ "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search		Date of Mailing of this International Search Report
09-03-1993		10. 06. 93
International Searching Authority		Signature of Authorized Officer
EUROPEAN PATENT OFFICE		Mme Dagmar FRANK

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB92/02157

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

For further information, please see form PCT/ISA/206 dated 01.04.1993.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-27, 29, 31-33

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

GB 9202157

SA 66888

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 19/05/93
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE-A- 4008612	19-09-91	None	
DE-A- 2023751	07-01-71	FR-A- 2042622	12-02-71
		GB-A- 1267314	15-03-72
		NL-A- 7006401	17-11-70
		US-A- 3645880	29-02-72
US-A- 3575839	20-04-71	None	