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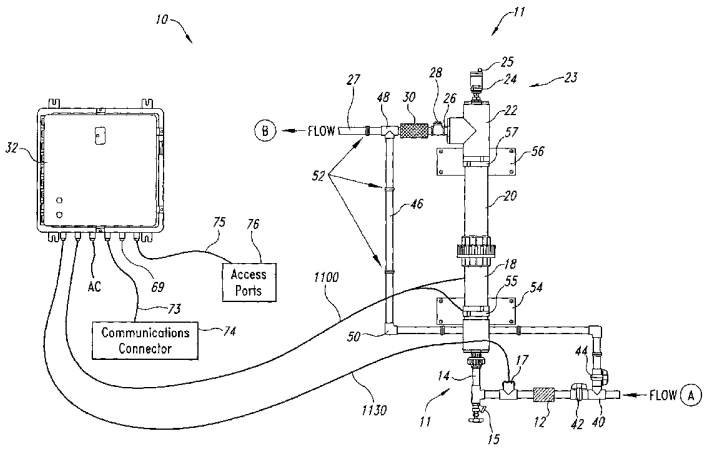
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**Published:**
— *with international search report*

(88) Date of publication of the international search report:
27 February 2003

*[Continued on next page]*

(54) Title: METHOD AND APPARATUS FOR WATER TREATMENT SYSTEM FOR LIVESTOCK AND POULTRY USE




(57) Abstract: A water treatment system for treating water for use with livestock and poultry. The system includes a water treatment filter, a flow meter that coordinates with a flow switch and an electrocatalytic cell coupled to a holding chamber that is attached to an outlet of the cell. An electric current flows across conductive plates in the cell through the water, breaking some of the water molecules into their component parts of hydrogen gas and oxygen gas. A vertical length of the chamber is selected to provide sufficient time to allow a majority of the gaseous oxygen to transition to dissolved oxygen. A control unit provides modification of the current density in the conductive plates of the electrocatalytic cell based on the value of the flow rate measured by the flow meter. The control unit may further include a memory unit allowing recordation of information for a given amount of time. Access to the control and memory unit may be provided via a modem link, alternatively, a direct link at the control unit may also provide access to the memory unit.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

Int nal Application No
PCT/US 01/24733

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C02F9/00 C02F1/461 A01K39/02

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 C02F A01K

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)
WPI Data, EPO-Internal, BIOSIS, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| | -/-- | |

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"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)

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"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

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"&" document member of the same patent family

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 24 October 2002 | 04. 11. 2002 |

| Name and mailing address of the ISA | Authorized officer |
|---|---|
| European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Devisme, F |

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Form PCT/ISA/210 (second sheet) (July 1992)

# INTERNATIONAL SEARCH REPORT

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PCT/US 01/24733

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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| A | DATABASE WPI<br>Section PQ, Week 199343<br>Derwent Publications Ltd., London, GB;<br>Class P14, AN 1993-343745<br>XP002191431<br>& SU 1 769 824 A (POULTRY RES TECHN INST),<br>23 October 1992 (1992-10-23)<br>abstract | 1,7 |
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# INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/24733

## 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:

see additional sheet

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.:

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6,7

TREATING WATER FOR POULTRY BY ELECTROCATALYSIS

2. Claims: 8-17

APPARATUS FOR TESTING WATER

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Interna[illegible]al Application No
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