

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 2003/103387 A3

(51) International Patent Classification⁷: **A01M 1/20**,
A61L 9/03

(21) International Application Number:
PCT/US2003/017767

(22) International Filing Date: 5 June 2003 (05.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/386,998 6 June 2002 (06.06.2002) US

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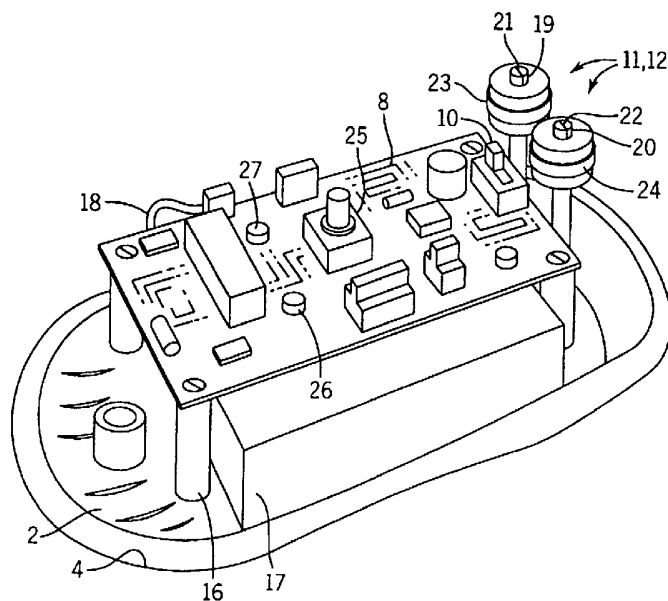
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: LOCALIZED SURFACE VOLATILIZATION DEVICE



(57) Abstract: The present invention relates to an apparatus and method for rapid flash-like volatilization of high and low vapor pressure components from liquid or solid emanators (11,12) which is in contact with a point or localized heat source (21, 22). Vaporization is promoted by a geometrically small electrically resistive heating element (21, 22) with variable activation for pulsed or cyclic heating of an emanating surface (19, 20) containing the volatile components. The apparatus is primarily directed towards the treatment of residential air for fragrancing, odor elimination, treatment of insects or pests, air sanitization, air and surface antibacterial or antimicrobial treatment, or other ambient air or surface modification by way of gas or vapor distribution.

WO 2003/103387 A3



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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.

(88) Date of publication of the international search report:

3 June 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/17767

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A01M1/20 A61L9/03

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 A01M A61L

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)

EPO-Internal

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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Y	page 7, line 21 -page 16, line 14 figure 1	5-7
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A	column 2, line 62 -column 5, line 55 ----- -/--	37

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

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- "&" document member of the same patent family

Date of the actual completion of the international search

31 March 2004

Date of mailing of the international search report

14. 04. 2004

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 5 484 086 A (PU KUAN H) 16 January 1996 (1996-01-16) column 3, line 22 -column 4, line 9 figures 1-3 ---	1,2, 8-10, 12-14, 17,19 11,18, 21-32, 34,35, 37-48, 50-53,58
Y A	EP 1 175 833 A (ZOBEL IND CHIM) 30 January 2002 (2002-01-30) column 3, line 39 - line 45 claims 7-9 figures 1-3 ---	11,31,45 1,8,9, 37,44
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International Application No

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C.(Continuation) 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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A	column 1, line 58 -column 2, line 33 figures 2-4	37
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/17767

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: 1-7, 17

Composition of a volatile substance.

2. Claims: 8-11, 37-58

Refill unit.

3. Claim : 12

Improved wick.

4. Claims: 13-16, 18-20, 21-36

Improved heating device.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/17767

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