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(71) Applicant (*for all designated States except US*): **ADVANCED MEDICAL APPLICATIONS, INC.** [US/US];  
6570 Edenvale Blvd., Eden Prairie, MN 55346 (US).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **BABAEV, Eilaz**  
[US/US]; 5564 Bimini Drive, Minnetonka, MN 55343  
(US).

(74) Agents: **DIPPERT, William, H.** et al.; Cowan, Liebowitz  
& Latman, P.C., 1133 Avenue of the Americas, New York,  
NY 10036-3799 (US).

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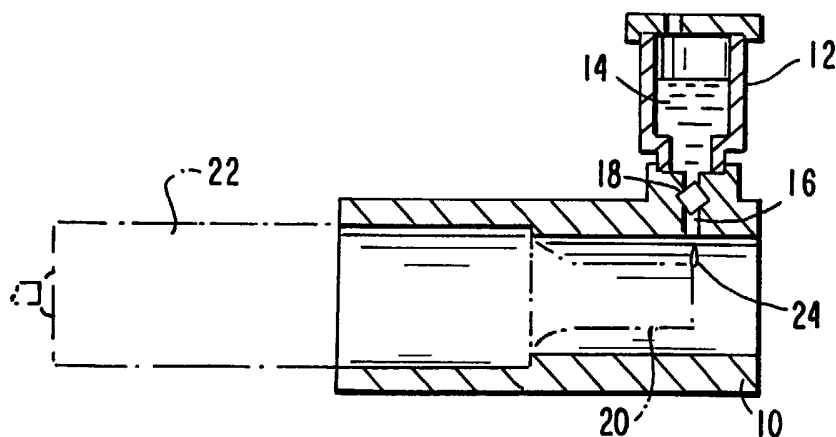
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[Continued on next page]

(54) Title: NOZZLE FOR ULTRASOUND AND WOUND TREATMENT



(57) Abstract: A nozzle for ultrasound wound treatment comprising a main body 810 with proximal and distal ends, a reservoir 12 and valve 18. The proximal end of the nozzle being removably attached to an ultrasound transducer. The distal end of the nozzle being marginally close and coaxial to the free distal end of the ultrasound transducer. The body 10 of the nozzle connected with liquid reservoir 12, which holds the wound treatment solution and delivers same to the free end of ultrasound tip 20) directly or through a tube 16). The nozzle is provided with valve 18) for controlling flow rate of wound treatment solution. The nozzle can mix different liquids or a liquid with a gas and deliver same to the wound surface. The nozzle can also be provided with trigger system 30) for one hand use. The present invention is a device, using ultrasonic waves to create, direct and deliver liquid treatment spray to a wound surface.



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**Previous Correction:**

see PCT Gazette No. 41/2002 of 10 October 2002, Section II

*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

International application No.

PCT/US01/31226

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 17/20

US CL : 604/22

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)

U.S. : 604/20-22; 128/200.14, 200.16; 606/41-42, 45-50; 607/100, 103, 104

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 practicable, search terms used)

BRS: ultrasound, reservoir, drug, transducer

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,076,266 A (BABAIEV) 31 December 1991, see entire patent.	1-11, 13-25, 31, 33-36, 38-43
A	US 6,104,952 A (Tu et al.) 15 August 2000, see entire patent.	1-43
A,P	US 6,296,630 B1 (Altman et al.) 02 October 2001, see entire patent.	1-43
Y	US 4,726,525 A (Yonekawa et al.) 23 February 1988, see entire patent.	1-43

☐ Further documents are listed in the continuation of Box C.

☐ See patent family 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 application or patent published on or after the international filing date

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"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 when the document is taken alone

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"&" document member of the same patent family

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Box PCT

Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Michael Thompson

Telephone No. (703) 308-0858