1. Name of conveying party(ies): Yuan Liu Hironobu Yamamoto Akihiro Tagaya Additional name(s) of conveying party(ies) attached?  3. Nature of conveyance:x_ Assignment Merger Security Agreement Change of Name Other Execution Date: 04/22/99; 03/16/99; 03/26/99  4. Application number (s) or patent number (s): Serial No. 09/269,43 If this document is being filed together with a executed application, the A. Patent Application No. Additional numbers  5. Name and address of party to whom correspondence concerning document should be mailed: Name: Richard M. Beck	Patent and Trademark  Second the attached original documents or copy thereof  2. Name and address of receiving party (ies):  Name: Aventis Research & Technologies GmbH & Collinternal Address: 65926 Frankfurt Germany  Street Address:  City: State: Zip  Additional name(s) address(es) attached? Yes _X_ No  Resecution date of the application is: 04/22/99; 03/16/99; 03/26/
To the Honorable Commissioner of Commissioner C	2. Name and address of receiving party (ies):  Name: Aventis Research & Technologies GmbH & Co Internal Address: 65926 Frankfurt Germany  Street Address:  City: State: Zip  Additional name(s) address(es) attached? Yes _X No  1. PCT/EP97/05361)
1. Name of conveying party(ies): Yuan Liu Hironobu Yamamoto Akihiro Tagaya Additional name(s) of conveying party(ies) attached?  3. Nature of conveyance:	2. Name and address of receiving party (ies):  Name: Aventis Research & Technologies GmbH & Co Internal Address: 65926 Frankfurt Germany  Street Address:  City: State: Zip  Additional name(s) address(es) attached? Yes _X No  1. PCT/EP97/05361)
	City: State: Zip  Additional name(s) address(es) attached? Yes _X No  33 (PCT/EP97/05361)
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Internal Address: CONNOLLY BOVE LODGE & HUTZ LLP  Street Address: P.O. BOX 2207	7. Total Fee (37 CFR 3.41) \$40.00  _x_ Enclosed Authorized to be charged to deposit account
City: WILMINGTON State: DE Zip: 19899	Deposit account number: 03-2775 (If any additional fee is required.)  (Attach duplicate copy of this page if paying by deposit account)
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## ASSIGNMENT

For valuable consideration, the receipt and adequacy of which is hereby acknowledged,

- 1) Dr. Yuan LIU, 534 Mapletree Drive, Knoxville, TN 37922, USA
- 2) Hironobu YAMAMOTO, 3-6-2-402 Higashi-Mitsuki, Sayama-shi Saitama 350-1302,
- 3) Akihiro TAGAYA, A-2 Terrace, 6 Kounan-dai, 6-23-5, Kounan-dai, Kounanku, Yokohama-shi, Kanagawa, 234-0054, Japan

Citizenship: 1) Chinese, 2) + 3) Japanese

hereby sell, assign, and transfer unto Aventis Research & Technologies GmbH & Co KG

a corporation organized under the laws of Germany located at 65926 Frankfurt, Germany,

the entire right, title and interest in and to my/our application for Letters Patent of the United States, executed concurrently herewith /

Ser.-No.:

filed:

entitled: Optical sensor for detecting chemical substances dissolved or dispersed in water

and my/our entire right, title, and interest in and to all my/our inventions disclosed in said application for Letters Patent, and in and to all divisional or continuation applications that may be filed for United States Letters Patent for any of said inventions, and in and to all patents that may be granted on the foregoing applications, and I/we hereby agree, whenever requested, to communicate to said assignee, its successors and assigns, any facts known to me/us respecting said inventions, to testify in any legal proceeding, and to execute all applications or papers necessary to obtain and maintain proper patent protection on said inventions in the United States.

Inventor(s):

1st: Gent Date: April 22, 1989

2nd: Hirmolne Jamonnoto Date: March 16, 1999

3rd: Akihiro Tagaya Date: March 26, 1999

RECORDED: 10/04/1999

PATENT REEL: 010330 FRAME: 0826