

# 1992 APPLICATION FOR FULL MEMBERSHIP IN THE AMERICAN SOCIETY FOR MICROBIOLOGY

1325 Massachusetts Avenue, NW • Washington, D.C. 20005 • (202) 737-3600 • FAX (202) 737-0368

**Eligibility** ASM welcomes to full membership anyone who is interested in its objectives and has a minimum of a bachelor's degree or equivalent in microbiology or a related field.

**Initiation** Memberships are initiated and renewed in January each year. **Unless there are directions to the contrary**, membership nominations received prior to September 1 are credited to the current year, and back issues of the selected publications for the current year are furnished, if available. **Nominations received after September 1 will become effective the following January.**

NAME (CIRCLE ONE) MISS DR. MS. MRS. MR.			
	FIRST	INITIAL	LAST
MAIL NAME	AS YOU WANT IT TO APPEAR ON YOUR MAILING LABEL		
ADDRESS	WHERE YOU WANT TO RECEIVE YOUR SUBSCRIPTIONS		
	STATE/PROVINCE	ZIP/POSTAL CODE	COUNTRY
PHONE ( ) ( )	OFFICE (01)	HOME (02)	YEAR OF BIRTH
SEX			
HIGHEST DEGREE	SUBJECT AREA		YEAR EARNED
EMPLOYER	PRESENT POSITION		
SIGNATURE OF APPLICANT			DATE
*NOMINATED BY			MEMBER #
SIGNATURE OF ASM MEMBER			

\*If you are not associated with an ASM nominating member, you can still apply for membership and we will contact you if there is a problem

**Member Information** How did you first learn about the ASM? (Check one):

<input type="checkbox"/> A colleague	<input type="checkbox"/> An advertisement in a journal	<input type="checkbox"/> Presenting a paper at an ASM meeting
<input type="checkbox"/> A professor	<input type="checkbox"/> Direct mail inquiry	<input type="checkbox"/> An ASM Branch
<input type="checkbox"/> An ASM journal	<input type="checkbox"/> A workshop, conference or meeting	<input type="checkbox"/> Student membership in ASM
		<input type="checkbox"/> None of the above

**Dues** Annual dues for 1992 are \$75. Dues include *ASM News* (monthly) and a \$51 credit which may be deducted from the total cost of the journal(s) you purchase at the special membership rates indicated below.

**Journals**  Enclosed is my dues payment (U.S. Dollars only) ..... \$75  
 Please send me the following ASM journal(s) at Member Price(s):

	U.S.	Canada	Non-U.S.		Amount	
			Air Drop	Airmail		
Antimicrobial Agents & Chemotherapy	\$49.00	\$52.00	\$84.00	\$224.00		AA
Applied & Environmental Microbiology	\$49.00	\$52.00	\$84.00	\$219.00		AE
Molecular & Cellular Biology	\$79.00	\$85.00	\$104.00	\$444.00		CB
Clinical Microbiology Reviews	\$20.00	\$21.00	\$34.00	\$74.00		CM
Infection & Immunity	\$51.00	\$55.00	\$89.00	\$289.00		IA
Int'l Journal of Systematic Bact.	\$35.00	\$37.00	\$44.00	\$84.00		IJ
Journal of Bacteriology	\$79.00	\$85.00	\$104.00	\$439.00		JB
Journal of Clinical Microbiology	\$46.00	\$49.00	\$77.00	\$222.00		JC
Journal of Virology	\$79.00	\$85.00	\$104.00	\$439.00		JV
Microbiology Reviews	\$20.00	\$21.00	\$34.00	\$74.00		MR
ASM News	\$0.00	\$0.00	\$0.00	\$80.00		

**In the past, members have been able to order free programs for the General Meeting and ICAAC Conference on the dues renewal form. Now, to receive a program for either of these meetings, you must register for the meeting. The cost of the program is included in the registration fee. For your information, abbreviated programs and advance information for each meeting will be included in *ASM News*.**

	<b>Total Journal Fees \$</b>	
Subtract your \$51 Member Journals Credit	<b>- \$51</b>	
<b>Subtotal</b> (if less than zero, enter zero) \$		
<b>Add your \$75 Membership Dues</b>	<b>+ \$75</b>	
<b>Total</b> (Dues plus Journals). If total is less than \$75.00, enter \$75 \$		

**PAYMENT IN U.S. DOLLARS MUST ACCOMPANY APPLICATION**

A membership card, voting division form, ASM Placement Service Information and the journal(s) of your choice will be sent within 90 days upon completion of processing. ASM dues are tax deductible to the extent permitted by law. ASM designates \$13 of your dues for *ASM News*. **Rates are for 1992 only.**

Applicants **must** remit in U.S. Dollars by check or draft payable to ASM through a U.S. bank located within the Continental U.S. Applicants from Canada may use check made out in U.S. Dollars and drawn on a Canadian bank or applicants may choose to pay with VISA, MasterCard, Eurocard, or American Express. If that is your preference, please fill in the box below.

<input type="checkbox"/> VISA #		EXPIRATION DATE: _____	
<input type="checkbox"/> MASTERCARD #		MO	YR
<input type="checkbox"/> AMEX #			
<input type="checkbox"/> EUROCARD #			
TODAY'S DATE	NAME	NAME AS IT APPEARS ON YOUR CREDIT CARD	
MONTH DAY YEAR			
SIGNATURE			

**INTRODUCING  
THE FAST WAY  
TO SEARCH  
ASM  
PUBLICATIONS  
ON YOUR  
OWN PC.**

**See reverse  
side for  
available titles  
and system  
specifications.**

Through a joint venture of the American Society for Microbiology and The William Byrd Press, selected ASM journals are now available on CD-ROM (Compact Disc-Read Only Memory).

Unlike other CD-ROM products, Byrd Electronic Publications for ASM include both the full text of the journal as well as high-resolution images of the original pages in which text and graphics are fully integrated. Everything on the original pages appears on your monitor, in place — from the table of contents to the indexes, charts, graphs, and photographs.

Using Byrd's retrieval software, you can conduct full word searches through thousands of pages to instantly find any search term, and then "turn" to the exact pages where the term occurred. Or, you can browse through a journal or book on screen just as you would with the printed publication in your hands. You can retrieve, display and print the page image on a laser printer or output ASCII text to a floppy disk or dot matrix printer.

Byrd's proprietary retrieval software was specifically designed for users of scientific publications. It gives you the flexible search functions you need to fully and quickly explore a unique publication database.

A growing number of ASM titles will be available on CD-ROM at affordable prices.

*Byrd*  
Electronic Publications  
for the American Society  
for Microbiology

*For pricing, ordering  
information, and special  
offers, send this card or call  
The William Byrd Press,  
CD-ROM Division.*

1-804-264-2711

1-804-264-0510

1-800-234-2973

Send me more information.  Please send an order form.

# Byrd Electronic Publications for the American Society for Microbiology

## Current Titles

Available in three-year sets of a single journal, usually three discs per set. Volumes in the set are 1989-1991. Volumes 1989 and 1990 will be shipped immediately after receipt of an order; 1991 will be shipped in late December. Prices range from \$229-\$269 for the three-year set with special offers available if you purchase multiple journals.

Antimicrobial Agents and  
Chemotherapy

Applied and Environmental  
Microbiology

Infection and Immunity

Journal of Bacteriology

Journal of Clinical Microbiology

Journal of Virology

Molecular and Cellular Biology

## Computer Systems Specifications

- IBM-compatible 286/386 personal computer
- High-resolution graphics monitor (VGA)
- CD-ROM drive
- User-friendly Byrd retrieval software
- Laser printer (optional) to print page images, including graphs, charts and photos
- Dot matrix printer to print text only

For technical support there is a toll-free number. Consultation available for hardware selection.

**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO.37 RICHMOND, VA

POSTAGE WILL BE PAID BY ADDRESSEE

**The William Byrd Press, Inc**  
CD-ROM Division  
P.O. Box 27481  
Richmond, Virginia 23261-9942

NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**Byrd**  
Electronic Publications  
for the American Society  
for Microbiology

*Write or call today  
for complete  
ordering information.*

**Call toll-free  
1-800-234-2973.**

# APPLIED AND ENVIRONMENTAL MICROBIOLOGY

VOLUME 58 • FEBRUARY 1992 • NUMBER 2

**Lars G. Ljungdahl**, *Editor in Chief* (1995)  
*University of Georgia*  
*Athens*

**Robert A. Bender**, *Editor* (1992)  
*University of Michigan*  
*Ann Arbor*

**Ronald L. Crawford**, *Editor* (1992)  
*University of Idaho*  
*Moscow*

**Jane Gibson**, *Editor* (1994)  
*Cornell University*  
*Ithaca, N.Y.*

**Robert J. Maier**, *Editor* (1995)  
*The Johns Hopkins University*  
*Baltimore, Md.*

**Kenneth W. Nickerson**, *Editor* (1992)  
*University of Nebraska*  
*Lincoln*

**Barrie F. Taylor**, *Editor* (1994)  
*University of Miami*  
*Miami, Fla.*

**Richard F. Unz**, *Editor* (1995)  
*Pennsylvania State University*  
*University Park*

## EDITORIAL BOARD

Donald G. Ahearn (1993)  
Jan R. Andreesen (1994)  
Ronald M. Atlas (1992)  
Tamar Barkay (1992)  
David R. Benson (1992)  
Claire M. Berg (1994)  
Kostia Bergman (1993)  
Deepak Bhatnager (1993)  
Linda F. Bisson (1992)  
Robert Blanchette (1992)  
Hans Blaschek (1992)  
David R. Boone (1993)  
Peter J. Bottomley (1992)  
Robert E. Brackett (1992)  
James Brierley (1994)  
Daniel R. Caldwell (1994)  
Douglas G. Capone (1993)  
Carl E. Cerniglia (1994)  
A. Keith Charnley (1992)  
Arun Chatterjee (1992)  
G. Rasul Chaudhry (1992)  
Tyrrell Conway (1994)  
Everly Conway de Macario (1994)  
Donald A. Cooksey (1994)  
Donald Crawford (1994)  
Kurt Dahlberg (1992)  
Edward F. DeLong (1993)  
Martin Dickman (1993)  
Harold Drake (1994)  
Gabriel Drapeau (1993)  
David W. Emerich (1992)  
Stanley L. Erlandsen (1993)  
Douglas Eveleigh (1994)

Scott Feighner (1994)  
Susan Fisher (1993)  
Gerald F. Fitzgerald (1994)  
Madilyn M. Fletcher (1993)  
James C. Fogleman (1993)  
Larry Forney (1993)  
Cecil W. Forsberg (1994)  
Shelby N. Freer (1994)  
Michael S. Gilmore (1993)  
Richard V. Greene (1992)  
D. Jay Grimes (1993)  
Charles N. Haas (1993)  
Bärbel Hahn-Hägerdal (1994)  
Caroline S. Harwood (1993)  
George Hegeman (1994)  
Walter E. Hill (1992)  
Alan Hooper (1993)  
Christon J. Hurst (1994)  
Robert W. Hutkins (1992)  
Lonnie O. Ingram (1992)  
Thomas W. Jeffries (1994)  
Michael G. Johnson (1992)  
Anna Johnson-Winegar (1994)  
Ronald D. Jones (1993)  
David M. Karl (1994)  
Jeffrey Karns (1994)  
Eva Kaskhet (1993)  
Gary M. King (1993)  
Staffan Kjelleberg (1994)  
Todd R. Klaenhammer (1992)  
Linda Kohn (1994)  
Allan E. Konopka (1994)  
Roger Korus (1992)

Rajiv K. Kulkarni (1994)  
Cletus Kurtzman (1994)  
R. Victor Lachica (1992)  
Thomas Langworthy (1992)  
Robert A. LaRossa (1994)  
Donald J. LeBlanc (1993)  
Jane A. Z. Leedle (1994)  
John Leslie (1994)  
Peter Lüthy (1992)  
Eugene L. Madsen (1992)  
Edward O. Mason, Jr. (1993)  
Thomas L. Mason (1993)  
Ann G. Matthysse (1992)  
Michael J. McInerney (1992)  
Richard D. Miller (1994)  
Aaron L. Mills (1993)  
Charles Moran (1993)  
David P. Nagle, Jr. (1994)  
Louise M. Nelson (1992)  
Walter G. Niehaus, Jr. (1994)  
Fergal O'Gara (1992)  
James D. Oliver (1993)  
Eric Olson (1994)  
Tairo Oshima (1993)  
Hans W. Paerl (1993)  
William J. Page (1992)  
Samuel A. Palumbo (1994)  
Bruce Paster (1994)  
Christine Paszko-Kolva (1994)  
Peter A. Pattee (1993)  
Ian L. Pepper (1994)  
James J. Pestka (1992)  
Allen T. Phillips (1992)  
Wesley O. Pipes (1992)

John I. Pitt (1993)  
Malcolm Potts (1993)  
Robert Ramaley (1992)  
John N. Reeve (1993)  
John L. Richard (1993)  
Donald C. Robertson (1993)  
Joseph A. Robinson (1993)  
John P. N. Rosazza (1994)  
Edward G. Ruby (1992)  
James B. Russell (1992)  
Michael Jay Sadovsky (1994)  
Peter M. Scott (1993)  
Barry F. Sherr (1994)  
C. Jeffrey Smith (1994)  
Jim Spain (1993)  
John B. Sutherland (1992)  
P. G. Thiel (1994)  
Linda S. Thomashow (1992)  
John Thompson (1994)  
Edward Topp (1992)  
Peter Van Berkum (1992)  
J. P. van Dijken (1992)  
Vincent H. Varel (1994)  
Ross A. Virginia (1994)  
Edward Voss (1993)  
Larry Wackett (1994)  
Judy D. Wall (1994)  
Carol L. Wells (1994)  
Bryan A. White (1993)  
David R. Wilcox (1992)  
Michael G. Wolfersberger (1994)  
Lily Young (1992)  
Stephen H. Zinder (1994)  
David A. Zuberer (1992)

**Barbara H. Iglewski**, *Chairman, Publications Board*

**John N. Bell**, *Production Editor*

**Linda M. Illig**, *Director, Journals*

*Applied and Environmental Microbiology*, a publication of the American Society for Microbiology (ASM), 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171, is devoted to the advancement and dissemination of applied knowledge as well as ecological knowledge, both applied and fundamental, concerning microorganisms. Instructions to authors are published in the January issue each year; reprints are available from the editors and the Journals Division. *Applied and Environmental Microbiology* is published monthly, one volume per year. The nonmember subscription prices are \$250 (U.S.), \$268 (Canada), and \$299 (other countries; air drop shipping) per year; single copies are \$42.80 (Canada) and \$40 (U.S. and other countries). The member subscription prices are \$49 (U.S.), \$52 (Canada), and \$84 (other countries; air drop shipping); single copies are \$10.70 (Canada) and \$10 (U.S. and other countries). Correspondence relating to subscriptions, defective copies, missing issues, and availability of back issues should be directed to the Subscriptions Department, ASM; correspondence relating to reprint orders should be directed to the Publication Sales Department, ASM; and correspondence relating to disposition of submitted manuscripts, proofs, and general editorial matters should be directed to the Journals Division, American Society for Microbiology, 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171. Phone: (202) 737-3600.

Claims for missing issues from residents of the United States, Canada, and Mexico must be submitted within 3 months after publication of the issues; residents of all other countries must submit claims within 6 months of publication of the issues. Claims for issues missing because of failure to report an address change or for issues "missing from files" will not be allowed.

Second-class postage paid at Washington, DC 20005, and at additional mailing offices.

POSTMASTER: Send address changes to *Applied and Environmental Microbiology*, ASM, 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171.

Made in the United States of America. Printed on acid-free paper.

Copyright © 1992, American Society for Microbiology.

All Rights Reserved.

ISSN: 0099-2240

CODEN: AEMIDF

日本：価格は外貨表示とは関係なく円建。

The code at the top of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal use or for personal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per-copy fee through the Copyright Clearance Center, Inc., 21 Congress St., Salem, MA 01970, for copying beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale.

# Author Index

- Aamand, Jens, 557  
Adams, Mark, 706  
Adams, R. H., 647  
Ahmad, D., 485  
Ahonen, Lasse, 600  
Amann, R. I., 614  
Aono, Rikizo, 520
- Bae, Ji-Hyun, 471  
Bernier-Cardou, Michèle, 545  
Blasco, R., 690  
Bonire, Josiah J., 758  
Bossé, Marc, 642  
Bottalico, Clementina, 769  
Brenner, V., 647  
Brousseau, Roland, 642  
Budacz, A. P., 747  
Burgess, J. Grant, 686
- Carlson, Russell W., 207  
Castillo, F., 690  
Chakraborty, Trinad, 765  
Champagne, Claude P., 545  
Chang, Cheng, 507  
Chen, S.-Y., 655  
Choi, Joon W., 593  
Chu, Fun Sun, 455  
Conway, Patricia L., 551  
Corstjens, P. L. A. M., 450  
Crawford, Ronald L., 727  
Cregan, Perry B., 720  
Crichlow, Michael, 713  
Cyr, W. H., 747
- Dai, Shu-Mei, 507  
Daub, Margaret E., 444  
Daya-Mishne, Naomi, 677  
Deibel, Don, 773  
Demizu, Kazuhiro, 703  
Devereux, R., 614  
de Vrind, J. P. M., 450  
de Vrind-de Jong, E. W., 450  
de Waard, Pieter, 536  
Dingman, D. W., 740  
Domann, Eugen, 765  
Doyle, Michael P., 664  
Doyle, Robyn, 706
- Eggink, Gerrit, 536  
Ehinmidu, Joseph O., 758  
Evans, Patrick J., 496
- Federici, Brian A., 507  
Feng, Guo Hong, 455  
Fevre, Michel, 578  
Focht, D. D., 647  
Foltz, William E., 717  
Freyssinet, Georges, 578  
Frutos, Roger, 507  
Fukuda, Hideo, 703
- Gerba, Charles P., 636, 724  
Gibson, Jane, 696  
Gibson, Katharine J., 696  
Gill, Sarjeet S., 507  
Goldschmidt, Bernard, 496  
Goto, Shingo, 734  
Governal, Robert A., 724  
Guthrie, Kelly, 737
- Hansen, Geir Høvik, 461  
Harsono, Kartika D., 709  
Hasegawa, Kazunari, 525  
Helleur, Robert, 773  
Heuvelman, Kees, 765  
Hewitt, Patricia, 706  
Higson, F. K., 647  
Hon-Nami, Koyu, 734  
Horikoshi, Koki, 520  
Howard, Patricia J., 709  
Huang, C.-M., 647  
Huijberts, Gern N. M., 536  
Huisman, Gjal W., 536
- Imamura, Norifumi, 562  
Ingledew, W. M., 713
- Jenns, Anne E., 444  
Johnson, Eric A., 624  
Johnson, Kenneth E., 731
- Key, R., 614  
Kjelleberg, Staffan, 551  
Klaenhammer, Todd R., 699  
Kohn, Shuhei, 703  
Kok, Jan, 572  
Koster, Margot, 630  
Kuester, R. K., 747
- Labeda, D. P., 532  
Lacis, Lynda S., 761  
Lajoie, C. A., 655  
Langholz, Ann C., 717  
Lanser, Janice, 706  
Lawford, Hugh G., 761  
Lee, Byungtae, 731  
Leimeister-Wächter, Michaela, 765  
Leonard, Thomas J., 455  
Leong, John, 630  
Lillehaug, Dag, 750  
Ling, William, 496  
Livasy, C. A., 740  
Luchansky, John B., 709  
Lucivero, Giacomo, 769  
Lyons, A. J., 532  
Lytle, C. D., 747
- Madsen, Torben, 557  
Marchessault, Robert H., 744  
Masson, Luke, 642
- Matsuda, Osamu, 562  
Matsunaga, Tadashi, 686  
McKay, Larry L., 476  
McKenzie, Cynthia H., 773  
Miller, Karen J., 471  
Minervini, Fiorenza, 769  
Miura, Isao, 703  
Moar, William J., 642  
Morin, Nicole, 545  
Morris, J. Glenn, Jr., 737  
Morris, John, 630  
Myers, Charles R., 439
- Nakamura, Noriyuki, 686  
Nakasono, Satoshi, 686  
Nealson, Kenneth H., 439  
Nes, Ingolf F., 750  
Nissen-Meyer, Jon, 750  
Nörtemann, Bernd, 671  
Notermans, Serve, 765
- O'Gara, Fergal, 630  
Ogawa, Takahira, 703  
Oh, K.-C., 655  
Ohtsubo, Sadami, 703  
Okuma, Emiko, 734  
Olafsen, Jan A., 461  
Oliver, James D., 737  
Olson, Betty H., 754  
Olsson, J. Christer, 551  
Olurinola, Philip F., 758  
Orser, Cindy S., 502  
O'Sullivan, Daniel J., 630  
Owens, James R., 513
- Pepper, Ian L., 636  
Peters, Francesc, 593  
Polzin, Kayla M., 476  
Pometto, Anthony L., III, 731  
Preyer, Janet, 737
- Rajendran, Narasimalu, 562  
Ramsay, Bruce A., 744  
Ramsay, Juliana A., 744  
Riou, Christine, 578  
Ritter, Edward R., 496  
Rohlfing, Stephen R., 717  
Romero, Dennis A., 699
- Sadowsky, Michael J., 720  
Saiki, Takashi, 734  
Salminen, Seppo O., 607  
Sangster, Norma, 706  
Saracovan, Ilie, 744  
Sato, Kanji, 734  
Sato, Masakazu, 520  
Schmukler, R. E., 747  
Schoeni, Jean L., 664  
Sekine, Kenji, 734  
Shabtai, Yossef, 677
- Shadman, Farhang, 724  
Shiga, Yasuhiro, 525  
Siebeling, Ronald, 737  
Sieracki, Michael E., 584  
Simpson, Linda M., 737  
Sode, Koji, 686  
Solfrizzo, Michele, 769  
Sollod, Cynthia Cooperman, 444  
Sondossi, M., 485  
Stahl, D. A., 614  
Stahly, D. P., 740  
Stormo, Keith E., 727  
Straub, Timothy M., 636  
Streeter, John G., 607  
Strøm, Ellen, 461  
Strom, P. F., 655  
Stromley, J., 614  
Stylvestre, M., 485
- Takagi, Yoshio, 734  
Takamuku, Toshihiro, 686  
Takefman, D. M., 740  
Tondreau, S. C., 747  
Topp, Edward, 502  
Truscott, W., 747  
Tsai, Yu-Li, 754  
Tsuboi, Akio, 525  
Tuovinen, Olli H., 600
- Udaka, Shigezo, 525  
Urushigawa, Yoshikuni, 562
- van Belkum, Marco J., 572  
van Frankenhuyzen, Kees, 642  
Venegas, L., 747  
Venema, Gerard, 572  
Vesley, Donald, 717  
Viles, Charles L., 584  
Visconti, Angelo, 769
- Wang, Lih-Ling, 624  
Weisbeek, Peter J., 630  
Wernars, Karel, 765  
Westbroek, P., 450  
Westerdahl, Allan, 551  
White, James F., Jr., 513  
Whiting, Michael, 713  
Whitmoyer, Robert E., 607  
Witholt, Bernard, 536  
Wright, Anita, 737
- Xun, Luying, 502
- Yahya, Moyasar T., 724  
Yamagata, Hideo, 525  
Yamamoto, Mami, 520  
Yonemura, Sotaro, 734  
Young, L. Y., 496
- Ziola, Barry, 713

**ANNOUNCING...**

# WATER QUALITY INTERNATIONAL '92

*16th Biennial Conference and Exposition*

*of the*

*International Association on Water Pollution Research and Control*

**Washington, DC  
24-30 May 1992**



## Highlights Include.....

■ *International specialized symposia on major current issues in water quality*

- Anaerobic Processes
- Aquatic Microbiology
- Biofilm Processes
- Chemical, Petrochemical and Pulp and Paper Waste Treatment
- Chesapeake Bay Estuarine Water Quality Management
- Computing in Water Pollution Control
- Mgmt. & Institutional Affairs
- Toxic and Hazardous Wastes Mgmt. & Hazard Assessment
- Waste Stabilization Ponds and Macrophytes
- Wastewater Reclamation & Reuse
- Wastewater Treatment Processes, Design and Instrumentation
- Water Resources & River Basin Management
- Water Pollution Research and Control

■ *Up to 200 poster presentations, with prizes for the best posters.*

■ *An International Exposition featuring innovative, low-cost energy-efficient technological advances.*

■ *Nine Specialty Courses presented by leading international authorities on water quality and wastewater treatment.*

■ *A social program offering a unique flavor of the USA including An All American Picnic and A Night at the Smithsonian.*

---

## REPLY FORM

I am interested in attending WATER QUALITY INTERNATIONAL '92. Please send me:

\_\_\_ Invitation to Register

\_\_\_ Exposition Prospectus

\_\_\_ Specialty Course Information

Name \_\_\_\_\_

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Country and Code \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

**Fax or Mail to:**

IAWPRC	or	Water Quality International '92
1 Queen Anne's Gate		c/o CAPS, Ltd.
London SW1H 9BT		50 Green Bay Road
ENGLAND		P.O. Box 406
Fax: 44(71) 233-1197		Lake Bluff, IL 60044 USA
Phone: 44(71) 222-3848		Fax: (708) 234-2874
		Phone: (708) 234-2353