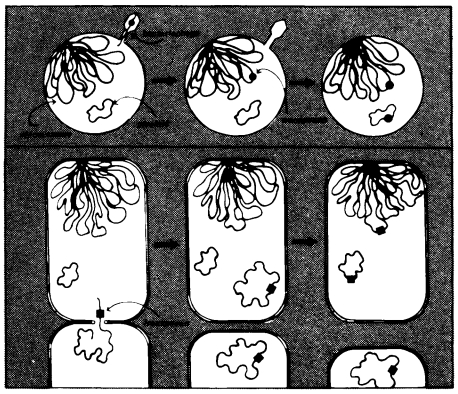
ENGINEERED ORGANISMS IN THE ENVIRONMENT: SCIENTIFIC ISSUES

Proceedings of a Cross-Disciplinary Symposium Held in Philadelphia, Pennsylvania, 10–13 June 1985

Editors:

Harlyn O. Halvorson
David Pramer
Marvin Rogul



The development of recombinant DNA and other genetic techniques, along with an increased awareness of the impact of humanity on the environment, has led to debate on the benefits and risks of releasing the living products of these techniques into the environment.

How can such organisms be designed for maximum benefit and minimum risk? How can these qualities be predicted and assessed?

These issues were addressed by distinguished scientists from a variety of fields—ecology, genetics, microbiology, molecular biology—at a symposium organized by ASM in collaboration with seven other scientific societies. Their contributions are presented in *Engineered Organisms in the Environment: Scientific Issues.*

Focus on Design and Risk-Benefit Analysis

Case history presentations cover the development of several projects that are close to practical application. The ecology of the introduction of organisms into a new environment is examined from many perspectives. Papers and discussions focus on assessment techniques and risk analysis.

The volume follows the symposium sessions:

- State of the Art: Case Histories
- Genetic Variation and Gene Transfer
- Other Introductions into the Environment
- Biological Responses to Perturbation: Genome to Ecosystem
- Future Trends: Toward a Predictive Capability

Essential Reading for Scientists and Laymen

Nonscientists involved in public policy on biotechnology will be interested in the lay summary of the book, written by Bernard Dixon, as well as the session summaries and the floor discussions.

Genetically engineered organisms, their development and their wise use, are the concern of many fields ranging from macroecology to molecular biology. A free flow of information among related scientific disciplines is essential. *Engineered Organisms in the Environment: Scientific Issues* is a significant contribution to this important, ongoing dialogue.

Publication date: December 1985
239 pages, illustrated, index
Paperback (ISBN 0-914826-83-2), including lay summary: $18.00
Lay summary only: $3.00

Yes, please send me *Engineered Organisms in the Environment: Scientific Issues*

Publication date: December 1985
239 pages, illustrated, index

☐ Payment enclosed
☐ MasterCard
☐ VISA

Allow 4–6 weeks for delivery.
Prices are subject to change without notice.

Quantity		Check price
_____	Paperback (ISBN 0-914826-83-2), including lay summary	$18.00 ___
_____	Lay summary only	3.00 ___

ASM American Society for Microbiology
Publication Sales
1913 I Street, N.W.
Washington, DC 20006 USA

Card number _____

Expiration date _____

Signature _____

Ship to:
Name _____

Institution _____

Address _____

City _____

State/Province _____ Zip/Postal code _____

Country _____

AEM 5/86

Developing a successful commercial product

THE ONE BOOK THAT TELLS YOU HOW IT'S DONE

MANUAL OF INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY

Editors: Arnold L. Demain and Nadine A. Solomon

A comprehensive guide to product development

Developing a commercially successful biological product requires insight, patience, fortitude—and technical knowledge. ASM's new *Manual of Industrial Microbiology and Biotechnology* provides a complete, one-volume reference of the biological and engineering methodology needed to develop a successful industrial process, from isolating the culture to recovering the final product.

The new manual is structured to follow the steps of industrial development through all its phases. Written by leading experts in industry and academia, the manual discusses the following:

- Culturing
- Fermentation
- Culture enhancement
- Immobilization and cell culture techniques
- Biochemical engineering
- Assays and product recovery
- Legal and safety issues

Students, researchers, and technicians in both academia and industry will find the *Manual of Industrial Microbiology and Biotechnology* an invaluable sourcebook.

Your guide to developing a successful biotechnological process.
Order the *Manual* today.

Please send me the *Manual of Industrial Microbiology and Biotechnology*.
Publication date: February 1986
466 pages, illustrated, index

Quantity		Check price
_____	Softcover (ISBN 0-914826-73-5)	
	Member price:	$37.00 _____
	Nonmember price:	$43.00 _____
_____	Hardcover (ISBN 0-914826-72-7)	
	Member price	$45.00 _____
	Nonmember price	$55.00 _____

Allow 4-6 weeks for delivery. Prices are subject to change without notice. Limit of 3 copies at the member price. If ordering at the member price, give member number:

_____

Check one

☐ Payment enclosed ☐ MasterCard ☐ VISA

Card number _____

Expiration date _____

Signature _____

Ship to:

Name _____

Institution _____

Address _____

City _____ State/Province _____

Zip/Postal code _____

Country _____

ASM
American Society for Microbiology
Finance Department
1913 I Street, N.W.
Washington, DC 20006 USA

AEM 5 86

An up-to-date resource book for microbiologists in academic research and applied microbiology—

MICROBIAL GROWTH ON C_1 COMPOUNDS

EDITORS: **Ronald L. Crawford and R. S. Hanson**

Proceedings of the 4th International Symposium

Microorganisms that grow on C_1 compounds offer great potential for use in applied microbiology. They are useful as biocatalysts, for certain biotransformations, for production of fine and bulk chemicals by fermentation, and for production of cloned gene products and single cell protein.

Recent advances in the biochemistry and genetics of these microorganisms enhance their potential for use in several processes. This book contains high-quality, full-length invited papers from recognized authorities on all aspects of the microorganisms that utilize C_1 compounds.

Sections:

- **Physiology and Biochemistry of Autotrophs**
- **Physiology and Biochemistry of Methylotrophs and Methanotrophs**
- **Physiology and Biochemistry of Methanogens**
- **Genetics of Microbes that Utilize C_1 Compounds**
- **Taxonomy and Ecology of Microbes that Grow on C_1 Compounds**
- **Applied Aspects of Microbes that Grow on C_1 Compounds**
- **New Directions in C_1 Metabolism**

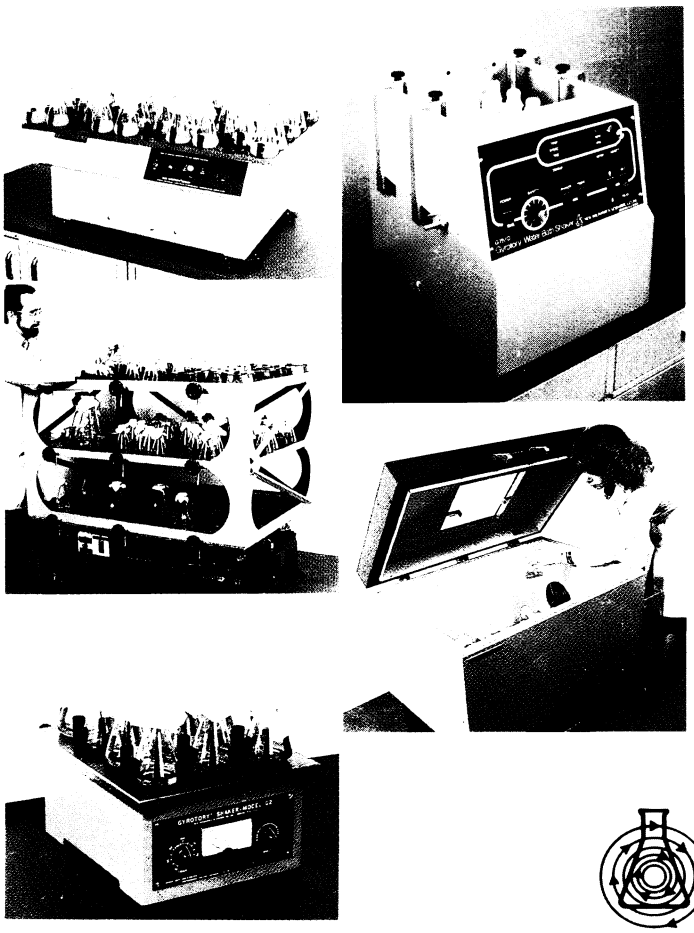
ORDERING INFORMATION

Publication Date: May 1984. 343 pages.
Clothbound. ISBN: 0-914826-59-X.
Member: $39.00. Nonmember: $47.00.
Prices are subject to change.
To order, complete the coupon and mail it to the publisher.

ASM American Society for Microbiology
1913 I Street, NW
Washington, DC 20006
USA

Please send _____ copy(ies) of *Microbial Growth on C_1 Compounds* at (check appropriate price)
__ $47.00 (Nonmember) __ $39.00 (ASM Member)
__ Payment enclosed.
__ Charge to my __ MasterCard __ VISA
Card Number _____
Expiration Date _____
Signature _____
Name _____
Address _____
_____
City State Zip _____ AEM 5 86

INTRODUCING A 2-YEAR WARRANTY* FOR NBS SHAKERS



. . . because the going is tough and NBS shakers keep going

NBS shakers have earned an outstanding reputation for long-term dependability during the past 40 years. But don't take our word for it. Look around at the thousands of NBS shakers still running after 15, 20, and 25 years.

In a search for the oldest incubator shaker, we came across more than 80 Model G25's that were still operating after 20 years, including two that have been shaking now for the past three decades; one at the University of Wisconsin Medical School and the other at Tulane University.

Unlike other shaker warranties, our new warranty covers both parts and labor for the entire two years. And for a nominal fee, you can add a third year. We have a national network of sales and service representatives throughout the U.S.A. and Canada, including three Regional Service Centers, should you need them . . . now, or 25 years from now.

Write or call for our 44-page Biological Shaker catalog. New Brunswick Scientific Co., Inc., P.O. Box 4005, Edison, NJ 08818-4005. (201) 287-1200.

*Warranty applicable in the U.S.A. and Canada only.

Call 1-800-631-5417

NEW BRUNSWICK SCIENTIFIC

At NBS Advanced Technology is a Way of Life