

***AQUATIC  
TOXICOLOGY  
AND HAZARD  
ASSESSMENT***

*Sixth Symposium*

*BISHOP/CARDWELL/HEIDOLPH,  
editors*



# AQUATIC TOXICOLOGY AND HAZARD ASSESSMENT: SIXTH SYMPOSIUM

A symposium  
sponsored by  
ASTM Committee E-47  
on Biological Effects  
and Environmental Fate  
St. Louis, Mo., 13-14 Oct. 1981

ASTM SPECIAL TECHNICAL PUBLICATION 802  
W. E. Bishop, Procter & Gamble Co.,  
R. D. Cardwell, Envirosphere Co., and  
B. B. Heidolph, Monsanto Chemical Co.,  
editors

ASTM Publication Code Number (PCN)  
04-802000-16



1916 Race Street, Philadelphia, Pa. 19103

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Library of Congress Catalog Card Number: 82-73772

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Printed in Baltimore, Md. (b)  
May 1983

## Foreword

The papers in this publication, *Aquatic Toxicology and Hazard Assessment: Sixth Symposium*, are taken from the sixth in a series of annual symposia on Aquatic Toxicology sponsored by ASTM. This sixth symposium, held 13-14 Oct. 1981 in St. Louis, Mo., was sponsored by ASTM Committee E-47 on Biological Effects and Environmental Fate. The five previous symposia in this series were sponsored by ASTM Committee E-35 on Pesticides.

Chairing the symposium were William E. Bishop, Procter & Gamble Co., Rick D. Cardwell, EnviroSphere Co., and Barbara Bufe Heidolph, Monsanto Chemical Co., all of whom also served as editors of this publication.

## Related ASTM Publications

Aquatic Toxicology and Hazard Assessment (Fifth Symposium), STP 766  
(1982), 04-766000-16

Aquatic Toxicology and Hazard Assessment (Fourth Symposium), STP 737  
(1981), 04-737000-16

Aquatic Toxicology (Third Symposium), STP 707 (1980), 04-707000-16

Aquatic Toxicology (Second Symposium), STP 667 (1979), 04-667000-16

Aquatic Toxicology and Hazard Evaluation (First Symposium), STP 634  
(1977), 04-634000-16

Ecological Assessments of Effluent Impacts on Communities of Indigenous  
Aquatic Organisms, STP 730 (1981), 04-730000-16

Analysis of Waters Associated with Alternative Fuel Production, STP 720  
(1981), 04-720000-16

Aquatic Invertebrate Bioassays, STP 715 (1980), 04-715000-16

## A Note of Appreciation to Reviewers

The quality of the papers that appear in this publication reflects not only the obvious efforts of the authors but also the unheralded, though essential, work of the reviewers. On behalf of ASTM we acknowledge with appreciation their dedication to high professional standards and their sacrifice of time and effort.

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