

1990

## Table of Contents

Academy Editors

Follow this and additional works at: <https://scholarworks.uark.edu/jaas>

---

### Recommended Citation

Editors, Academy (1990) "Table of Contents," *Journal of the Arkansas Academy of Science*: Vol. 44 , Article 2.

Available at: <https://scholarworks.uark.edu/jaas/vol44/iss1/2>

This article is available for use under the Creative Commons license: Attribution-NoDerivatives 4.0 International (CC BY-ND 4.0). Users are able to read, download, copy, print, distribute, search, link to the full texts of these articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.

This Front Matter is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of the Arkansas Academy of Science by an authorized editor of ScholarWorks@UARK. For more information, please contact [scholar@uark.edu](mailto:scholar@uark.edu), [ccmiddle@uark.edu](mailto:ccmiddle@uark.edu).

## TABLE OF CONTENTS

Secretary's Report and Financial Statement Program	1
Secretary's Report and Financial Statement Program	7
<b>FEATURE ARTICLES</b>	
KENNETH M. BALL and LEO CARSON DAVIS: Efficiency in Collecting Fossils	13
WILLIAM R. BOWEN, CHRISTOPHER C. HEMANN, ARTHUR A. JOHNSON and BARRY H. GOOD: Mermithid Nematodes: SEM Observations Comparing Hexamethyldisilazane and Critical Point Drying Methods	16
W.J. BRAITHWAITE: Rotational Symmetries of Nuclear States: Spin Determinations in Advanced Laboratory	19
BETTY G. COCHRAN and GEORGE L. HARP: The Aquatic Macroinvertebrates of the St. Francis Sunken Lands in Northeast Arkansas	23
CHARLES F. COLE, JR., ROBERT A. SIMS, and ALOIS J. ADAMS: An On-Line Process Fiber Optic Refractometer for Measuring Edible Oil Hydrogenation	28
ROBERT L. COOK, RICHARD D. BENTON, and ROBERT A. GREEN: University Based Multidisciplinary Organizations - Promises and Challenges	30
M. DRAGANJAC, DAVID MINICK, and E.M. HOLT: Comparison of the Molecular Structures of Monovalent Cation Salts of N,N-Dimethyldithiocarbamate. Novel Synthesis and Crystal Structure of $(\text{PO}_4)(\text{S}_2\text{CN}(\text{CH}_3)_2)_2\text{H}_2\text{O}$	35
R.J. EICHENBERGER: A Preliminary Study to Determine the Effect of Microwaves on Green Wood	38
THOMAS L. FOTI: The Vegetation of Saratoga Landing Blackland Prairie	40
KAMESH V. GADEPALLY, KEVIN B. TENNAL, ROGER M. HAWK, AL ROBLES and JAMES A. GRIBEL: Study of Deposition Methods for Silicon Powder	44
ROBERT A. GREEN: Engineering: Art, Science, or Trade	49
MARK GROSS, STAN NEAL, BELINDA EDERINGTON, and ROBERT MULDOON: A Comparison of Pressurized and Gravity Distribution Systems for Wastewater Treatment	53
RAO P. GULLAPALLI, TERESA T. EVANS, and ROGER M. HAWK: Principles and Clinical Applications of Magnetic Resonance	56
THERESA L. HINES, NEELA R. PATEL, DAOUD ABU-DIAB, MICHAEL SIKES, and ALVAN K. KARLIN: A Comparison of Methods for Purification of DNA From Rice	65
M. KEITH HUDSON, WILLIAM G. HOOD, and ROBERT HENSON: A Data Acquisition and Control Program for Chromatographic and Spectroscopic Studies	67
DUANE JACKSON: Photoacoustic Detection of Carbonaceous Atmospheric Aerosols	71
ARTHUR A. JOHNSON: Hematozoa of Common Grackles ( <i>Quiscalus quiscula versicolor</i> , Vieillot) in Central Arkansas	75
SIRIPONG MALASRI and ROGER R. EASSON: Educational Software Development Using Hypertext and Expert System Software Concepts	79
THOMAS A. NELSON and MICHAEL W. JOHNSON: Fecundity of Male White-Tailed Deer on Holla Bend National Wildlife Refuge	83
DONNA PORTER and SAM BISHOP: Soil and Lithostratigraphy Below the Loveland/Sicily Island Silt, Crowley's Ridge, Arkansas	86
MAZO PRICE, MD. JALALUDDIN, and R.H. DILDAY: Screening Rice ( <i>Oryza sativa</i> L.) Genotypes for Drought Tolerance Under Field Conditions	91
S. RAMAPRASAD: Conformational and Circular Dichroism Studies on N-Acetyl-L-Prolyl-D-Alanyl-Methylamide	94
DENNIS J. RICHARDSON, ROBERT D. WRIGHT, and SHANNON WALKER: Sexual Dimorphism and Intersexual Differences in Resource Allocations of a Dioecious Shrub, <i>Lindera melissifolia</i> (Walt.) Blume.	100
SUBHENDRA NATH SARKAR: Design of a Viscometer Using Magnetostriction of Ferromagnetic Probes	104
STANLEY E. TRAUTH, ROBERT L. COX, BRIAN P. BUTTERFIELD, DAVID A. SAUGEY, and WALTER E. MESHAKA: Reproductive Phenophases and Clutch Characteristics of Selected Arkansas Amphibians	107
RENN TUMLISON and V. RICK McDANIELS: Analysis of the Fall and Winter Diet of the Bobcat in Eastern Arkansas	114
ROBERT D. WRIGHT: Photosynthetic Competence of an Endangered Shrub, <i>Lindera melissifolia</i>	118
<b>GENERAL NOTES</b>	
ROBERT M. CRISP, JR. and BARRY C. WELLS: Image Enhancement of Faded Historic Documents	121
ROBERT L. DOUGLAS: The Impact of Microprocessor Protected Mode Programming on Undergraduate Education in Engineering Technology	123
C.E. EPPERSON and N.R. RHODES: Characterization of Radioactivity in Hot Springs National Park, Arkansas	125
JACK GAISER and HAROLD PRAY: Status of the Accelerator Project at U.C.A.	127
PHOEBE A. HARP and GEORGE L. HARP: A Synopsis of the Belostomatidae of Arkansas	129
MICHAEL J. HARVEY and SAM W. BARKLEY: Management of the Ozark Big-Eared Bat, <i>Plecotus townsendii ingens</i> , in Arkansas	131
NORMAN LAVERS: Pellet Analysis of Winter-Roosting Long-Eared Owls ( <i>Asio otus</i> ) in Arkansas	132
PAUL J. PALAZOLO and PATRICIA BRACKIN: Enhancing an Engineering Learning Environment	132
ROBERT WRIGHT, STEPHEN RUBLE, and GASTON GRIGGS: Time Course of Photoreactivation of UV Induced Damage in G1 Phase <i>Xenopus</i> Cells That Leads to Chromosome Breaks Observable by Premature Chromosome Condensation	134

7 187FRY XL  
11/94 2476-352173  
SERIALS  
ACQUISITION  
DIVISION

V. 44