

CALL FOR PAPERS

April 11-12-13, 2008



THEME:

ENERGY CONTEXT: Powering Ohio's Future

Hosted by

THE UNIVERSITY OF TOLEDO

for details see <http://www.ohiosci.org>

Abstract Deadline: Postmarked by **November 5, 2007**



About the Annual Meeting

THE OHIO ACADEMY OF SCIENCE'S Annual Meeting is for academic, governmental, and industrial scientists and engineers, university and pre-college educators, and pre-college, undergraduate, and graduate students, and interested lay citizens in the Ohio region. Annually the several hundred scientific presentations are complemented by workshops, symposia, an All-Academy Lecture, and field trips on local geology and plant sciences.

Call for Papers

WHATEVER YOUR SCIENTIFIC INTERESTS this Call for Papers is your invitation to participate in the 117th Annual Meeting of The Ohio Academy of Science to be hosted by The University of Toledo on April 11-12-13, 2008. Poster and podium sessions will be on Saturday, April 12. Two basic options are available to present papers: (1) professionals, college students of all levels, and pre-college students who have completed research may submit an abstract; (2) college undergraduates only, may submit an Undergraduate Research-in-Progress Summary. Undergraduates also may submit an abstract if research *results* are included. **All abstracts and summaries will be peer-reviewed.** Acceptable abstracts and summaries will be published in the Program Abstracts issue of *The Ohio Journal of Science* to assure that researchers across Ohio, elsewhere in the United States, and in dozens of foreign countries will have access to your work. The *Journal* also will publish Undergraduate Research-in-Progress Summaries. Symposia, workshops and field trips may be

arranged by special permission. Research papers are welcome in ALL FIELDS of science, engineering, technology, education and their applications.

On the Web

Please use this brochure or retrieve forms and instructions from: <http://www.ohiosci.org>

Our Host

THE UNIVERSITY OF TOLEDO is one of 13 state universities in Ohio. It was established in 1872 and became a member of the state university system in 1967. The University of Toledo and the Medical University of Ohio merged over a year ago to form the third-largest public university operating budget in the state.

UT is a community built around eleven academic colleges and professional programs matched only by a handful of public universities nationwide, including The Ohio State University and the University of Michigan. UT's main campus, located along the banks of the Ottawa River in a residential section of the city, includes historic buildings, modern facilities, contemporary residence halls and abundant green space. The University of Toledo Health Science Campus is home to UT Medical Center hospitals and clinics and many of UT's health-science research and education programs that are teaching the next generation of physicians, nurses and other health care professionals.

PLEASE COMPLETE AND RETURN THE SUBMISSION FORM
POSTMARKED BY MONDAY, NOVEMBER 5, 2007.

HOW TO PREPARE AN **ABSTRACT** FOR PEER REVIEW

AN ABSTRACT MUST BE PREPARED FOR EACH PAPER to be presented at the Annual Meeting. An abstract is a **concise summary** of the educational, scientific, engineering, or technological **research contents of the paper**, and not merely a general description of what the paper is about. Tell what the specific facts are, not what they are going to be when you talk.

Quality abstracts are highly structured and contain all of the following elements: (1) background or introduction including goals, objectives, purpose, and hypothesis, (2) methods and materials, (3) results, data or observations, and (4) discussion or conclusion(s). **Phrases like "will discuss, will review, will talk about, or will present" are unacceptable in an abstract.** All important facts should be stated with brevity, but not such sparing use of words as to leave ambiguity. Abstracts should be

250 words or fewer. Tables and graphs should not be included. New techniques or new apparatus and their functions should be mentioned. New constants, critical data or formulae should be included. Names of new species should not be listed in the abstract; use full scientific names for all organisms. Use the term "significant" only if you state the statistical test(s) used. Always define the sample(s), population or trials ($N=?$). The value of abstracts is real and considerable, not only for those in attendance, but also for others unable to attend. All abstracts will be **peer-reviewed**. Acceptable final abstracts --**to be submitted by Email when requested**--will be published in the program abstracts issue of *The Ohio Journal of Science* and **shall be presented by the first author**. It is the responsibility of the first author of multi-authored abstracts to obtain permission from all authors to submit the content of the abstract.

HOW TO PREPARE A COLLEGE UNDERGRADUATE RESEARCH-IN-PROGRESS SUMMARY

IN ORDER TO ACCELERATE THE ENTRY OF COLLEGE undergraduate students into the professional world of education, science, engineering, technology, or their applications, The Ohio Academy of Science has adopted the following policy and procedures to accept and publish summaries of college undergraduate research-in-progress in lieu of abstracts for the Annual Meeting. Papers, based on the student's research, may be presented in either podium or poster format. Undergraduates whose research is unfinished by the abstract submission deadline may submit an Undergraduate Research-in-Progress Summary in lieu of an abstract. This summary is a statement following the general typing and submission instructions for an abstract.

The summary shall contain the following elements: (1) background or introduction including goals, objectives, purpose, and hypothesis, (2) methods and materials, and (3) if available, initial observations. **Phrases like "will discuss, will review, will talk about, or will present" are unacceptable in a summary.** All important facts should be stated with brevity, but not such sparing use of words as to leave ambiguity. Summaries should be 250 words or fewer. Tables and graphs should not be included. New techniques or new apparatus and their functions should be mentioned. New constants, initial critical data,

if available, or formulae should be included. Names of new species should not be listed in the summary; use full scientific names for all organisms. **State the statistical test(s) you plan to use and always define the expected sample(s), population or trials ($N=?$).** The value of summary is real and considerable, not only for those in attendance, but also for others unable to attend. **Summaries shall be presented by the college undergraduate first author.** It is the responsibility of the first author of multi-authored summaries to obtain permission from all authors and research advisor(s) to submit the content of the summary. Undergraduate Research-in-Progress Summaries shall be reviewed for conformity to general format but ***shall not be considered a peer-reviewed scientific publication.*** Summaries shall not be accepted for publication without a signed statement from the advisor(s) whose name(s) appear in the summary, vouching for the accuracy of the summary and, barring some compelling reason, assuring that the undergraduate will present the work, including results, analysis of results, and any conclusions available, at the Academy's Annual Meeting. Acceptable final summaries--**to be submitted by Email when requested by the Academy**-- will be published in the Program Abstracts issue of *The Ohio Journal of Science* and shall be identified as a summary by (including the advisor's name in parentheses).

PLEASE COMPLETE AND RETURN THE SUBMISSION FORM
POSTMARKED BY MONDAY, NOVEMBER 5, 2007.

FORMATTING INSTRUCTIONS

Content of

Abstract:

Please include one or two sentences on each of the following:

- background or introduction including goals, objectives, purposes, and hypothesis;
- methods & materials;
- results, data or observations; and
- discussion or conclusion(s).

TYPE TITLE IN CAPITAL LETTERS. Continue typing on the same line with name(s) of presenter(s) typed First, Middle Initial, and Last in UPPER/lower case. Do not type your last name in all capital letters. Follow each authors name with Email address. Then, on the same line, add the **complete and accurate** mailing address and ZIP code for the first author/presenter. Only the first author/presenter should have a complete mailing address. All others should be listed with their affiliation if different. All may have emails listed. **DO NOT CENTER THE LINES OF YOUR ADDRESS.** Type flush left, ragged right. Do not indent.

Skip one line and type abstract DOUBLE spaced to make it easier for peer reviewers and the Editor. DO NOT EXCEED 250 words. DO NOT EXCEED ONE PAGE. Abstract must be one paragraph. Use 12 point Times New Roman type. LASER PRINT IS PREFERRED. **DO NOT FOLD YOUR ORIGINAL OR COPIES.** Mail FLAT with cardboard protection. **PLEASE COMPLETE AND INCLUDE THE SUBMISSION FORM.**

**Mail FIRST CLASS
(postmarked) by Monday, November 5, 2007 to:**

The Ohio Academy of Science
PO Box 12519
Columbus OH 43212-0519



CHECKLIST:

PLEASE INCLUDE THE FOLLOWING:

1. Completed submission form for the **first** author who will present. EACH SUMMARY MUST HAVE A SEPARATE SUBMISSION FORM. **Enclose one additional copy.**
2. Submission and membership fee (check payable to The Ohio Academy of Science). The submission fee includes the registration fee for the first author ONLY and is non-transferrable.
3. Original summary or abstract typed double spaced within 1" or wider margins on **8.5" x 11" WHITE PAPER** plus **one** identical xerographic copy.
4. Signed **Consent & Release Form.**
<http://www.ohiosci.org/consent.pdf>
5. Please include a self-addressed, stamped postcard to acknowledge receipt of your summary . Only one postcard per envelope is needed.

- First authors must be members to submit and present at the Academy's Annual Meeting
- Submission and Membership Form plus one copy
- Submission Fee
- Original submission plus one copy
- Signed **Consent & Release Form** available at <http://www.ohiosci.org/consent.pdf>
- To acknowledge receipt of your summary include a self-addressed, stamped postcard. Only one postcard per envelope is needed.

QUESTIONS? 614/488-2228 or outside 614, toll free, 1-800-OHIOScience

Content of Undergraduate Research-in- Progress Summary:

Please include one or two sentences on each of the following:

- background or introduction including goals, objectives, purposes, and hypothesis;
- methods & materials;
- initial observations, if available.

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POSTMARKED BY MONDAY, NOVEMBER 5, 2007.**

SUBMISSION AND MEMBERSHIP FORM

***IMPORTANT:** Please read and **SIGN**.

*First Author's Signature **REQUIRED** here:

Name _____ Date _____

First authors must be members to submit and present at the Annual Meeting of The Ohio Academy of Science. The submission fee includes the meeting registration fee **ONLY** for the first author. Registration information will be sent only to the first author. All meeting attendees, including second authors, must register. The first author, who will be the presenter of each paper, must return this form with the submission and payment to The Ohio Academy of Science. Please use a separate form for each submission. A signed consent and release form (<http://www.ohiosci.org/consent.pdf>) also is required. *As a first author I understand that by submitting this abstract or summary I will present my research at the meeting. If I am unable to attend, then I understand that whoever presents it for me will be required to pay the full meeting registration fee.*

FIRST AUTHOR INFORMATION:

Type: ___ ABSTRACT or ___ *Undergrad Research-in-Progress Summary
 Check: ___ Professional ___ College student ___ Pre-college student
 Check: ___ Ms. ___ Mrs. ___ Mr. ___ Dr. ___ Prof.
 Full Name _____
 Job Title _____
 Employer, organization, school, or institution _____

Preferred mailing address (College students **must use current residence address** and NOT departmental address; report address change promptly.)

City _____ State _____ Zip _____
 Ohio County _____
 Office Phone (____) _____
 Home Phone (____) _____
 FAX Number (____) _____
 E-MAIL _____

FIELD OF SUBMISSION: _____
 SUBMISSION TITLE (first 5-10 words) _____

Presentation method ___ poster **or** ___ podium.
 Podium presentations are limited to 15 minutes. **If no method is selected, podium will be assigned.** Pre-college students are limited to poster.

Is this your **FIRST** time to present a scientific paper?
 ___ YES ___ NO
 Are you interested in volunteering to chair a session?
 ___ YES ___ NO

***ATTENTION: Advisors**

*College Undergraduate Research-in-Progress Summaries shall not be accepted for publication without the following signed statement from the advisor **whose name appears in the summary:** *I vouch for the accuracy of the College Undergraduate Research-in-Progress Summary being submitted with this form and barring some compelling reason, assure that the undergraduate will present the work, including results, analysis of results, and any conclusions available, at the Academy's Annual Meeting.*

Advisor's Signature _____
 Printed Name _____
 Email _____

First authors must be members to submit and present at the Annual Meeting of The Ohio Academy of Science.

Please JOIN or RENEW TODAY!

REQUIRED SUBMISSION FEE:

___ \$55 Submission fee. **One fee per submission; fee includes the registration fee ONLY for the first author. Fee is non-refundable**

REQUIRED ACADEMY MEMBERSHIP:

- ___ **NEW** or ___ **RENEWAL**
- ___ \$1,000 **LIFE** (installment plan available)
- ___ \$1,000 Sponsor of the Academy
- ___ \$750 Sustainer of the Academy
- ___ \$500 Advocate of the Academy
- ___ \$500 Corporate Member
- ___ \$250 Supporter of the Academy
- ___ \$100 Institution, Organization or Agency Member
- ___ \$100 Friend of the Academy
- ___ \$85 Family (maximum of 3 persons)
- ___ \$75 Regular Member
- ___ \$40 Retired (age 59 & over) Member with Journal
- ___ \$40 College Student with Journal
- ___ \$40 Pre-college Student (age 17 & under) w/ Journal
- ___ \$25 Retired Member without Journal
- ___ \$25 Pre-College Student without Journal

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*Please charge my credit card \$_____ **Please PRINT your name** below as it appears on your card.

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Billing address phone No. (____) _____

Signature _____

***ONLINE PAYMENT:** <http://www.merchantamerica.com/ohiosci/>

MAIL FIRST CLASS (POSTMARKED) BY Nov. 5, 2007

1. Submission and Membership Form plus one copy,
2. Submission (abstract or summary) plus one copy
3. Combined Abstract and Meeting Registration Fee (non-refundable)
4. Membership Fee (renewal or joining) as needed
5. Consent & release form
5. Self-Addressed, stamped acknowledgement postcard to:
 The Ohio Academy of Science
 PO Box 12519
 Columbus OH 43212-0519
 Phone 614/488-2228 or toll-free, outside (614), 1-800-OHIOSCI