

SPECIAL ABSTRACT FORM FOR SECTION PROGRAMS FOR 1975

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Important: Read all instructions before typing abstract.

This paper is intended
for which section?

- Anthropology
- Botany
- Cell Biology
- Chemistry, Inorg.,
Anal., Phys.
- Chemistry, Org.,
& Biological
- Conservation
- Economics
- Engineering
- Geology
- Mathematics
- Physics
- Physiology
- Psychology
- Science Tchg.
- Zoology
- Undergraduate
- Joint Session:

POSTER SESSION?

Yes No

(See reverse.)

Instructions for Typing Abstract: (See other side for examples.)

1. Use a typewriter with elite type, preferably electric with a carbon ribbon.
2. Single space. The abstract should be a single paragraph. Leave no top or left margin within the rectangle. Leave 5 spaces before starting title. See examples on other side.
3. Use a short specific title. Use standard abbreviations.
4. Any special symbols such as Greek letters which are not on your typewriter must be drawn by hand in BLACK ink.
5. DO NOT ERASE. Your abstract will be printed by photo offset exactly as you submit it; any erasures, smudges, misspellings, poor hyphenation, etc., will be glaringly apparent in the printed abstract. Faint copy will not reproduce - please use a carbon ribbon and clean type.
6. Abstract should contain (a) sentence statement of the study's specific objective, unless given by the title; (b) a brief statement of methods, if pertinent; (c) a summary of the results; (d) conclusions.
7. Your ENTIRE abstract must be within the rectangle outlined above but need not fill it vertically.
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Complete the following and enclose a stamped, self-addressed envelope if you want acknowledgement of your abstract.

Acknowledgement

Author(s) _____

The title and abstract of your paper for the section checked below have been received and will be forwarded to the appropriate section chairman.

You will receive a "Notice of Scheduling" about March 15 if the paper is accepted for the program.

- | | | |
|---------------------------------|------------------|----------------|
| Undergraduate | Engineering | |
| Anthropology-Archaeology | Geology | |
| Botany | Mathematics | |
| Cell Biology | Physics | |
| Chemistry, Inorg., Anal., Phys. | Physiology | |
| Chemistry, Organic and Biol. | Psychology | |
| Conservation | Science Teaching | Joint Session: |
| Economics | Zoology | |

SEE OTHER SIDE FOR
EXAMPLES OF STYLE

AND

MORE DETAILS ABOUT
THE POSSIBILITY OF
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THAN READING IT.

EXAMPLES OF STYLE: (Important: The 5 space indentation is absolutely necessary to allow space for a number that will be typed in later.)

5 space
indentation

GROWTH AND FLOWERING IN SAGITTARIA: EFFECTS OF LIGHT INTENSITY.
Clifford E. LaMotte and Jean Wooten,* Ames.

Effects of light intensity on growth and flowering of the heterophyllous hydrophyte, Sagittaria graminea var. Chapmani, were studied in a controlled environment chamber. Both light quality and quantity were measured as a function of water depth above the plants. Whether emerged leaves are required for flower initiation was tested by excising them at an early stage of the development. Flowering occurred at all light intensities sufficiently high to elicit the prerequisite vegetative growth. Although flowering is usually associated with emerged leaves, plants without them flowered at the highest tested light intensity. Changes in light quality with depth were small and probably played no role in flower initiation.

CRYSTAL AND MOLECULAR STRUCTURE OF 2,2,3,3,4,4-HEXAFLUOROCYCLOBUTYLIDENETRIPHENYLPHOSPHORANE. N. C. Baenziger, D. J. Burton, M. A. Howells, and R. D. Howells, Iowa City.

The 2,2,3,3,4,4-hexafluorocyclobutylidenetriphenylphosphorane $(C_6H_5)_3P=C_4F_6$ crystallizes in the triclinic space group PT (Ci^1 ; No.2) with cell parameters, $a = 9.559$ (10), $b = 10.446$ (10), $c = 11.156$ (10), $\alpha = 115.9$ (2)°, $\beta = 91.9$ (2)°, $\gamma = 95.6$ (2)°, $Z = 2$. The observed and calculated densities are, respectively, 1.29 (4) and 1.371 g cm⁻³. A single-crystal structural analysis, based on complete three-dimensional data ($\sin_{MAX} = .5$ MoK radiation) collected with a Picker four-circle automatic diffractometer, is now being completed. The structure was determined by the symbolic addition method. Present refinement by block diagonal least squares results in $R_H = [\sum W (AF)^2 / \sum W (F_{OBS})^2]^{1/2} = .0746$ for 2558 independent reflections.

THE EFFECT OF VARIOUS CHEMISTRY APPROACHES ON THE ATTITUDE OF STUDENTS.
Paul A. Charter, Adair.

The research was conducted to analyze if one mode and media used in chemistry contributed more to the development of positive attitudes toward science than another combination of mode and media. The traditional approach was compared to an individualized, self-pacing approach (PACE). A questionnaire was administered to ninety-six eleventh graders. To analyze the data collected from the questionnaire, the pairs were matched according to ITED scores for the comparison of mean responses to the various statements on the questionnaire. The entire group was used for the statistical evaluation because of the absence of correlated means. The statistical evaluation suggested a significant difference in the student's attitude toward science in general and the science method in particular. The comparison of mean responses to various items on the questionnaire were more positively skewed for the PACE group.

(Visuals should be limited to 2 x 2 slides or overhead projection transparencies.)

POSTER SESSION

The foyer of Carver Hall will be used on Saturday, April 19, for the exhibit of papers by posters and exhibits for a small number of authors who would like this opportunity for more personal interaction with interested parties. The display area is accessible and comfortable, but only flat posters and non-electrical table displays will be permitted. You will have to provide all materials and equipment and be responsible for everything, including put up and take down late Saturday afternoon.

If you are interested in this means of presentation, please check the box on the front of this form and further information and instructions will be sent at once.