SUMMARY REPORT

TEACHING OF UNDERGRADUATE MASS AND ENERGY BALANCES

A Mini-Session Presented at the Annual Meeting

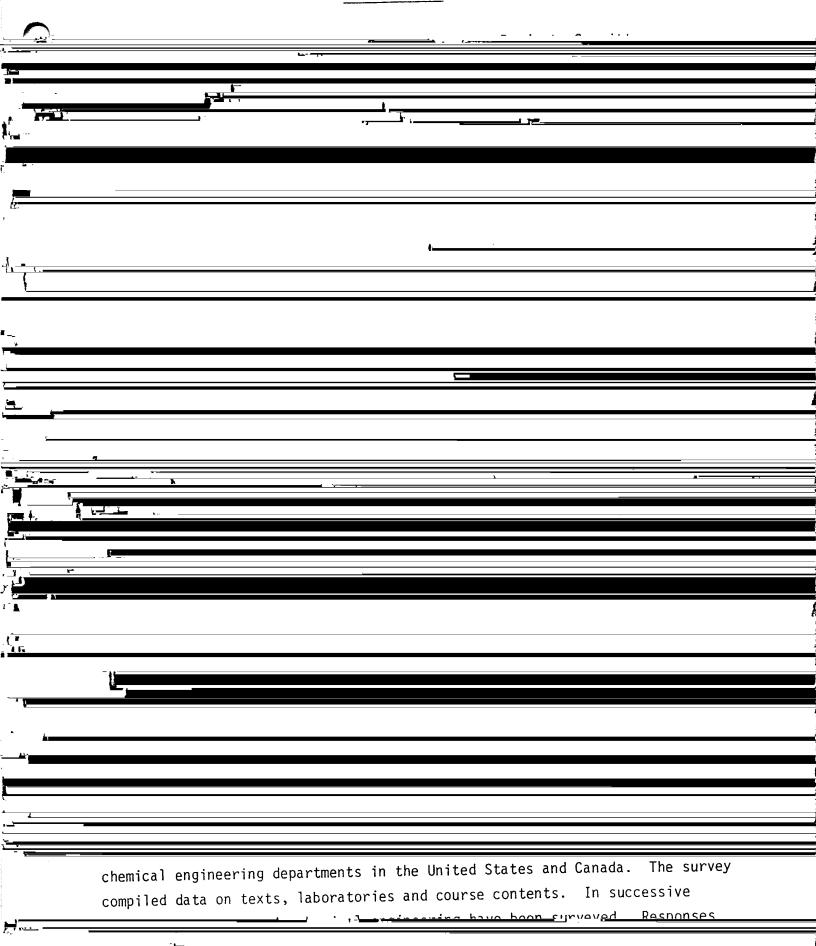
American Institute of Chemical Engineers

New Orleans, Louisiana

November 9, 1981

Edwin O. Eisen

INTRODUCTION



COURSE LEVEL

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COMPUTERS IN MASS AND ENERGY BALANCES

computer are summarized below: Number of Colleges % of Assignments

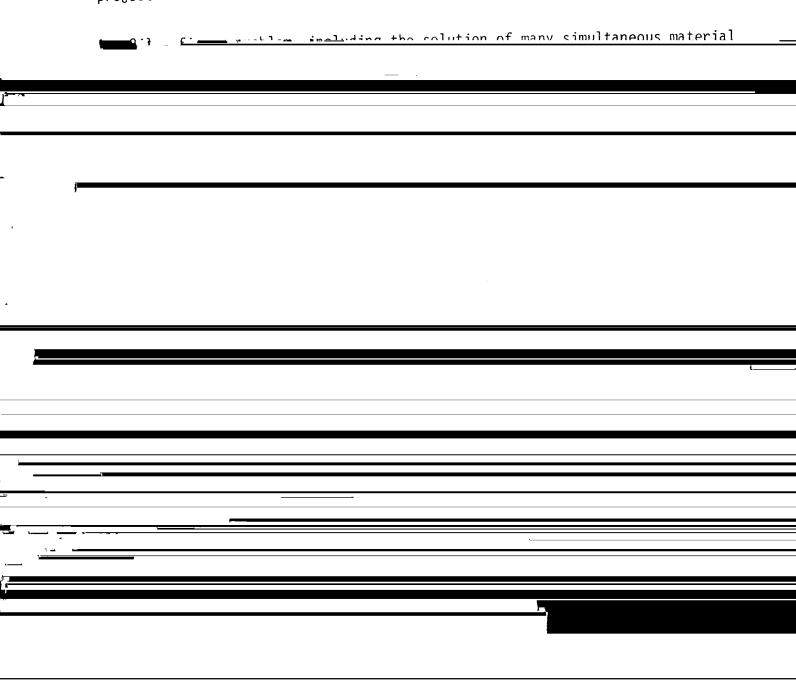
0-10%

77

PROJECTS

<u>Projects lasting one month or longer were assigned in 16% of the courses.</u>
On the average, there project involves groups of 3 to 4 students. The project grade was 10% to 30% of the total course grade.

The following comments were made about the nature and purpose of the project.



TEXTBOOK

<u>C</u>	In previous surveys, there has almost always been a text which was
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	Sic texts, plus personal notes, were mentioned. The text by Felder and
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	No ather text was used in more than two courses.

29% of the courses. No other text was used in more than two courses

<u>AUTHOR</u>

NUMBER OF SCHOOLS

Felder & Rousseau

64

Himmolhlau

29

TEXTBOOK COMMENTS

The compilation of comments on the textbook involves some subjective judgement. Over 80% of the questionnaires included comments on the texts. The comments listed below were mentioned on over 20% of the replies.

Many problems Well organized Good examples Clearly written

Deficiencies

Shortage of example problems
Problems not difficult enough
Depth of treatment is not enough
Needs more computer problems
More development of unsteady-state processes

Himmelblau
Strengths
Excellent examples
Challenging problems

Deficiencies

Some topics require more explanation Errors in many examples More problems requiring computer solutions