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Manufacture of Chemicals by Fermentation  
Vienna, 1 - 5 December 1969

## SUMMARY

### MICROBIAL PRODUCTION OF THERAPEUTIC AGENTS ✓

by

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#### INTRODUCTION

#### ANTIBIOTICS

Currently Available Antibiotics

The Need for New Antibiotics

Production of Antibiotics - General Considerations

Fermentation Improvement

Microbial Genetics

Role of the Environment

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## PENICILLIN

- Strain Selection
- Fermentation Media
- Fermentation and Recovery
- Course of Fermentation
- Role of Precursors
- Biosynthesis
- Semi-Synthetic Penicillins

## OTHER ANTIBIOTICS

### SEARCH FOR NEW ANTIBIOTICS

- Primary Screen (in vitro)
- Secondary Screen

## MICROBIAL TRANSFORMATIONS OF STEROIDS

- SOURCES OF STEROIDS

- PREPARATION OF CORTICOIDS

- PREPARATION OF ESTROGENS

- TYPES OF TRANSFORMATIONS

### MICROBIAL TRANSFORMATION PROCESSES

- Conventional Method

- Spore Process

- Production of Spores

- Transformation with Spores

OTHER MICROBIAL METABOLITES OF THERAPEUTIC VALUE

ALKALOIDS

Microbial Production

Microbial Transformations

POLYSACCHARIDES

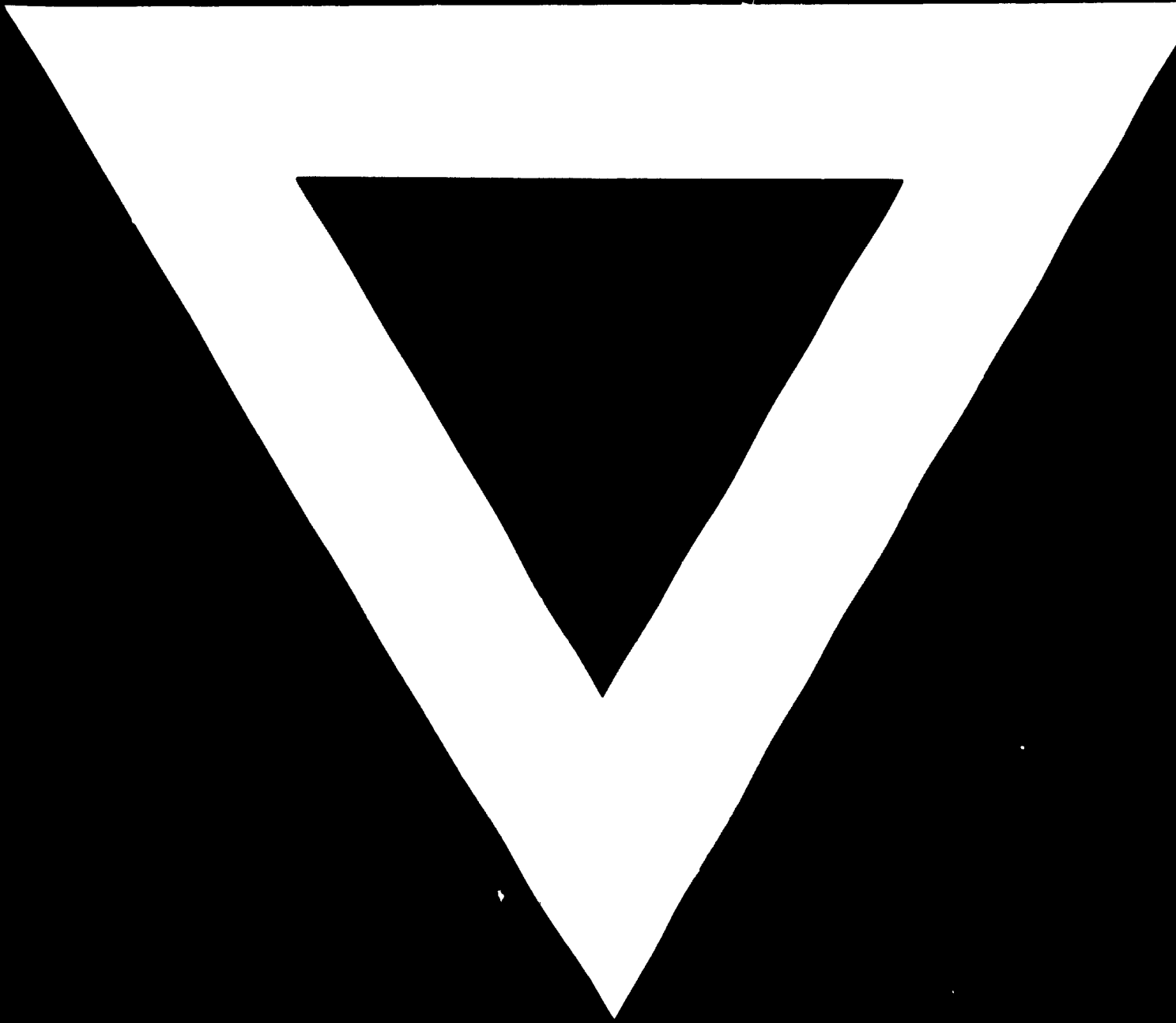
ENZYMES

Fibrinolytic Enzymes

L-Asparaginase

REFERENCES (250)





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