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Expert Group Meeting on the Manufacture
of Proteins from Hydrocarbons

Vienna, Austria, 8 - 12 October 1973

SUMMARY

PETRO-PROTEINS

by

OMV Vienna/CHEMIE Lins

Funds made available in 1972 by OIAG - the Austrian State Holding - have made it possible to continue laboratory and pilot trials already carried out by OMV and VOGELBUSCH for some years ago to develop and improve a process for the production of proteins by fermentation of special hydrocarbon fractions.

The aim of the actual project is to optimize such a process and the proteins produced to defined standard quality by investigating the influences of -

- raw material composition using intermediate products from a commercial Urea Dewaxing unit in production at Schwechat refinery after purification
- variation of fermentation parameters making use of new VOGELBUSCH self priming aeration system (rotating system) in lab scale (3-5 l) pilot 1-2 m³ 50 kg/d) and pilot testruns with 10-40 m³ reactor (600-1000 kg/day) in batch, semicontinuous and continuous production considering energy input, fermentation temperature, nitrogen source, pH, cell density, mineral salt balance, aseptic conditions
- harvesting and processing to final yeast products

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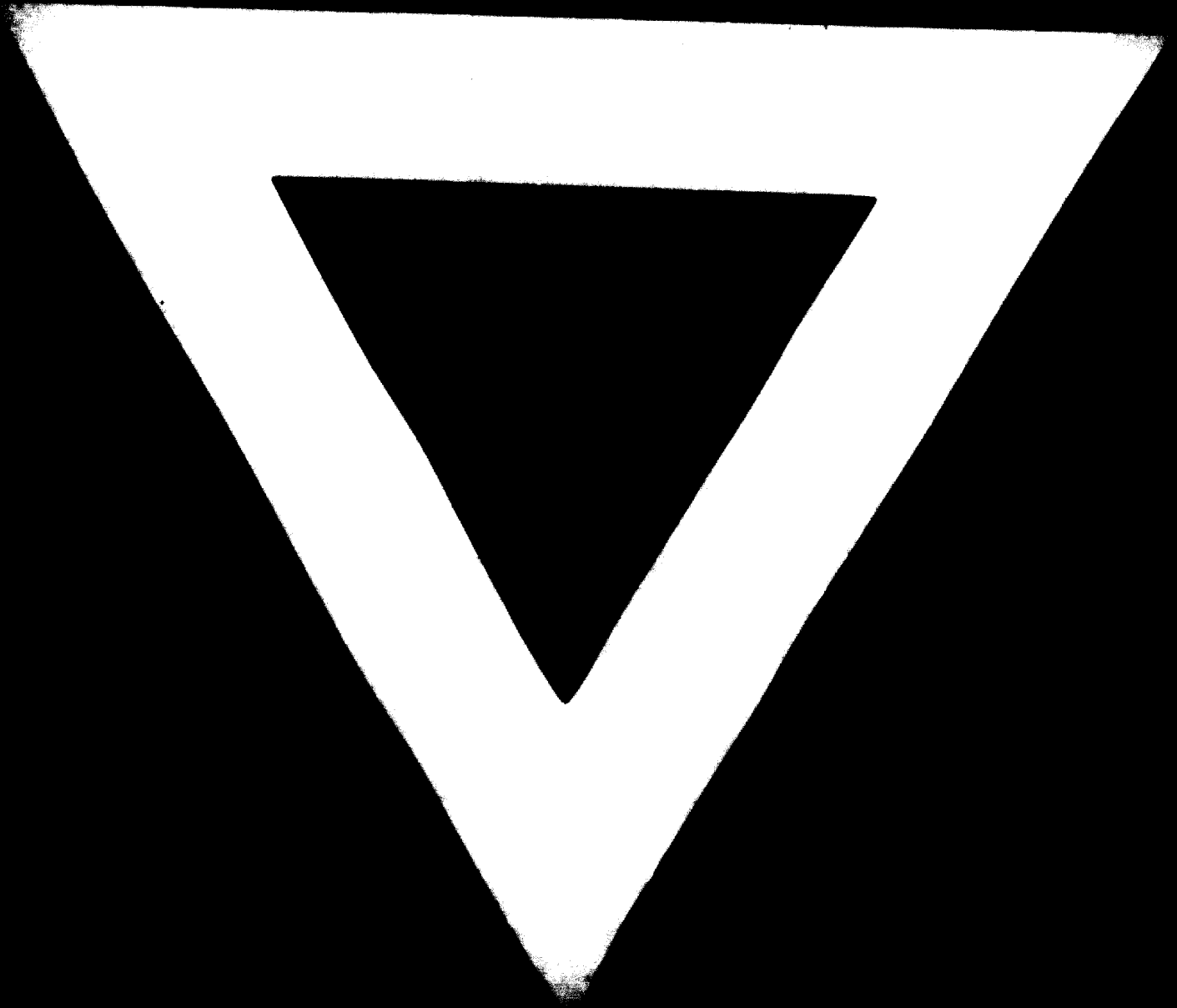
We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

The AUSTRIAN project makes use of certain selected strains of yeast (first with a broad range of laboratory test), which later will be extended to an already existing pilot installation.

It is expected, that during the coming year sufficient quantities of yeast of constant quality will be available to carry out the indispensable feed trials.

Although the Austrian feed market, as can be seen from statistics is of certain importance, we believe, that a plant of size big enough to be economic could not be considered in this country before the end of this decade despite an actual shortage on the world protein market, which certainly will influence positively the final economic consideration of such a plant. Based on the actual trials, however we believe that we shall have collected until 1975 the necessary experimental information for the decision on the expedience to start a protein production from hydrocarbon feedstocks.





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