

CONTENTS

J. HOLLÓ	
Opening Address	XI
I. LÁNG	
Welcome Address	XVII

GENERAL TOPICS

U.P. KRALOVÁNSZKY	
Biotechnologies and their perspectives in food industry	3
P.A. BIACS, I. VARSÁNYI, M. HARKAY	
Biotechnology in the agro-biomass utilization	11
G.Z. MENG	
Brief survey of China's enzyme technology related to food industry	19
H. CHAVERON	
Analyse et biotechnologie en agroalimentaire	27
H.J. VAZQUEZ	
An integration of system analysis and knowledge base expert system approaches to the management of quality in food manufacturing systems	43
J.M. GOPO, R. MELIS, E. FILIPSKA, J. FILIPSKI, J.L. VENDEUVRE, G. BERNARDI	
Development of a Salmonella-specific DNA probe for rapid routine identification and diagnosis of Salmonellae spp. in food	53

T. TÖRÖK, J. LEHOCZKI, T. DEÁK
Services for biotechnology: microbial strain
databank and industrial patent depository 55

M. PÉCS, L. NYESTE, J. HOLLÓ
On-line application of cyclic analyzers for food
industrial fermentations 61

GENETIC ENGINEERING, PHYSIOLOGY

L. TAMÁS, I. FARKAS, D. LÁSZTITY, R. LÁSZTITY
Expression of polylysine molecule in
Escherichia coli 75

F. KEVEI, J. SZAMOS, Á. HOSCHKE, S. RISCH, L. FERENCZY
Hybridization of important Aspergilli via
protoplast fusion 81

J. POLAK, E. GALAS, H. BRZESKI
Cloning of Bacillus subtilis alpha-amylase gene in
Escherichia coli using plasmid and cosmid vector
systems 93

M. SIPICZKI, Zs. BÓDI, E. ZELIZI, I. MIKLÓS
Selection of wine and distillery yeasts for genetic
improvement 107

M. JENEY-KIRÁLY, M. KÁLLAY, V. FEKETE, E.K. NOVÁK
Wine improvement by microbes 115

G. SADDEKNI, A. MARÁZ, T. DEÁK
Breeding of wine yeasts having different
physiological properties 123

CHEN BI-CHENG
Studies on mutant strain for overproduction of
glucoamylase and its properties 135

A. MARÁZ, J. REZESSY-SZABÓ
Improvement of brewer's yeast characteristics 137

B. NOVÁK, E. LÁSZLÓ
Regulation of the cell cycle of yeast 147

D.C. BRUYER, M. VANBELLE, A. BAUDICHAU
Hydrolysis of 2-hydroxy-4-(methylthio) butanoic
acid dimer in simulated intestinal fluid 163

ENZYMES, MICROORGANISMS

- A. ZAMORANI, P. SPETTOLI, A. CURIONI, A. CRAPISI
Enzymes in dairy products 175
- XU JIALI, XIE SHUNZHEN, WANG MEIYING
The production of lipase by Candida lipolytica
AS 2.1405 181
- S. BHATNAGAR, B.N. JOHRI
Lipases of thermophilous moulds 195
- WANG JUN-YING, HU ZHI-XIANG
Application of microbial amylases in food industry 211
- CUI FU-MIAN, LIU HAN, ZHANG SHU-ZHENG
Preparation of pectinase and its application in
food technology 225
- G. LANZARINI, P.G. PIFFERI
Immobilization of pectic enzymes on oxycellulose 237
- P.G. PIFFERI, M. TRAMONTINI
Immobilization of pectic enzymes on maleylchitosan 251
- E. MAREK, D. KÖRNER, I. von LUPIN
The influence of fermentation conditions on
the synthesis of pectinolytic enzymes by an
immobilized culture of A. niger 255
- Z. EL-SHAMEI
The purification and properties of peroxidase
in spinach. I. Isolation and purification 257
- Sv. PEDERSEN, S. RUGH
Properties and application of Sweetzyme T -
A new immobilized glucose isomerase produced by
a strain of Streptomyces murinus 267
- D. MEYER, G. KERNS, J. KUDE
High yielding cellulase mutants for different
applications 285
- G. DONGOWSKI, H. ANGER, W. BECK
Effects of macerases and cellulases on the
cell wall substance of carrots 301
- F. KÖRÖSI, G. MÁRAI, J. BÁTHORY, I. PATAKI, Gy. ÉRY
Effect of low dose X-ray irradiation on Phylacell
enzyme activity 303

M. RYCHTERA, V. JIRKŮ, G. BASAŘOVÁ	
Immobilization of cells and their use in biotechnological processes	317
K. RICHTER, U. BECKER, W. MAI	
Characterization of lactic acid bacteria by means of gas chromatography	327
K. RICHTER	
The influence of stress factors on the ethanol-tolerance behaviour of <u>Saccharomyces cerevisiae</u>	335
J. ZEMEK, Ľ. KUNIAK, V. MONCOL'OVÁ, A. BLAŽEJ	
Standardization and unification in the determination of activities of biotechnologically important enzymes	345
QIAN SHI-JUN, JIAO QUING-HUA, AN SHAO-JIAN, TIAN KAI-RONG, MENG GUANG-ZHEN	
Studies on the microbial milk-clotting enzyme	361
Zl. ROSHKOVA, E. SIMOVA, D. BESHKOVA	
Beta-galactosidase production from <u>Kluyveromyces lactis</u> MP-11	363
M. LEISOLA, S. GARCIA, A. KANTELINEN, R. WALDNER, A. FIECHTER	
Biology of lignin degradation	373
LU SHIH-I, CHEN YU-MEI, LEE LINA, FENG GOU-HONG, DENG HONG, JIANG YING-PING, GAO DAI-TZEN	
An important R & D program in agriculture: biotechnology for the utilization of waste lignocellulosics through cultivation and breeding of edible fungi	383
D. KNORR, M.D. BEAUMONT, Y. PANDYA	
Polysaccharide copolymers for the immobilization of cultured plant cells	389
G. RICHTER, G. TEGGE	
Enzymatic conversion of starch in food processing	401
TECHNOLOGICAL APPLICATIONS	
N. KOSARIC, Z. DUVNJAK, A. WIECZOREK	
Novel processes for production of fuel alcohol	427

M. de MINIAC		
Utilisation de souches de levures sélectionnées sur sites industriels pour la fermentation alcoolique des mélasses enrichies en non-sucre de vinasse		453
E. LÁSZLÓ, K. RÉCZEY, J. HOLLÓ		
Economic comparison of enzymic starch and cellulose hydrolysis		469
J. FARKAS, K. INCZE, É. ANDRÁSSY, J. REICHARDT		
Microbiological changes in raw fermented sausages		479
B. SEVELLA, L. KIRCHKNOPF, CAO VAN THU, L. NYESTE		
Elaboration of a citric acid technology in Hungary		487
Z. ŠIMŮNEK, E. DAVIDKOVÁ, M. PRUDEL		
Sweetener USAL, its properties and possibilities of introduction in food industry		497
L. SÁRY, L. KÜSZ, J. PERÉDI		
Biotechnological processing of sunflower hull by controlled fermentation		503
N. KOSARIC, Z. DUVNJAK		
Utilization of microbial biomass for deemulsification of industrial emulsions		509
I. HOSSZÚ, M. TÓTH		
Improved technology of wort production by application of brewing enzymes		521
A.M. PISANELLI, P. SPETTOLI, F. FAVATI, L. LENCIONI		
Free amino acid content in Provolone cheese		537
J. ROSSI, F. CLEMENTI, M. GOBBETTI, M. RIBALDI		
Fungal protein production from citrus waste solid substrates		545
M. FIDANOVA, P. PÉNEV		
Possibilités de biosynthèse des protéines substantielles de mycélium fongique en utilisant des résidus de fermentation (vinasse)		557
N. SOOD, R. KOKKE		
Tempeh - traditional biotechnology from Indonesia		569

A.M. KHORSHED, F.M. EL-TALLAWI	
Fermentation of automated Baladi bread in Egypt	587
U.P. KRALOVÁNSZKY, M. SZELÉNYI-GALÁNTAI, T. MÁTRAI	
Application possibilities of amino acids for feeding	593
M.C. LADURON, M. VANBELLE	
Traitement enzymatique des produits végétaux: intérêt en nutrition animale	603
G. SZAKÁCS, B. RADVÁNSZKY, J. GYENES	
Large-scale production of animal feed from meat industry by-products by lactic acid fermentation	609
T. CSEH, L. CZAKÓ, P. MIHÁLTZ, J. HOLLÓ	
Investigations on biogas versus yeast SCP production from pig manure	617
N. KOSARIC, P.C. BELL	
Techno-economic analysis of microbial protein (SCP) production	625
A.J. WIEG	
Enzymatic treatment of waste water from wheat starch industry	657
K. GRUIZ	
Microbiological intensification of food industrial effluent treatment	667
Cs. SISAK, B. SZAJÁNI, L. BOROSS	
A new type immobilized enzyme bioreactor and its application in food industrial processes	679
L. RICHARDSON CASELLA	
Enzyme modified flavour products	693
G. DARDENNE	
Conclusion	695
Author Index	699
Subject Index	703