

REFERENCES

Abramova, M. A. and Kapultsevich, Yu. G. (1986):

Preparation of *Hansenula* and *Pichia* hybrid forms by protoplast fusion. *Mikrobiologiya*, 55 (5): 760-764.

Alexander, J. Nancy (1985):

Temperature sensitivity of the induction of xylose reductase in *Pachysolen tannophilus*.

Biotechnology and Bioengineering., 25 : 1739 – 1744.

Alexander, J. Nancy (1986):

Acetone stimulation of ethanol production from D-xylose by *Pachysolen tannophilus*. *Applied Microbiology and Biotechnology.*, 25: 203 – 207.

Amore, R.; Wilhelm, M. and Hollenberg, C. P. (1989):

The fermentation of xylose and analysis of the expression of *Bacillus* and *Actinoplas* xylose isomerase genes in yeast. *Appl. Microbiol. Biotechnol.*, 30: 351 – 357.

Anderson, F. B. and Millbank, J. W. (1966):

Protoplast formation and yeast cell-wall structure. The action of enzymes of the snail, *Helix pomatia*. *Biochem. J.*, 99: 682-687.

Anne, J. and Peberdy, J. F. (1976):

Induced fusion of fungal protoplasts following treatment with polyethylene glycol. *J. Gen. Microbiol.*, 22: 314-417.

Barnett, J. A. (1976):

The utilization of sugars by yeasts.

Adv. Carbohyd. Chem. Biochem., 32: 125-134.

Batt, C. A.; Carvollo, S. Easson; Jr. D. D.; Akedo, M. and Sinsky, A. J. (1986):

Direct evidence for a xylose metabolic pathway in *Saccharomyces cerevisiae*.

Biotechnol. Bioeng., 28: 549-553.

Bleeg, H. S.; Bak, A. L.; Christansen, C.; Smith, K. E. and Stenderup, A. (1972):

Mitochondrial DNA and glucose repression in yeast.

Biochem. Biophys. Res. Commun., 47: 524-530.

Bruinenberg, P. M.; de Bot, P. H. M.; Van Dijken, J. P. and Scheffer, W. A. (1984):

NADH-linked aldose reductase: a key to anaerobic alcoholic fermentation of xylose by yeasts.

Appl. Microbiol. Biotechnol. 19: 256-260.

Cheng Chan, E. and Chan, L. (1986):

D-xylose fermentations to ethanol by *Schizosaccharomyces pombe* cloned with xylose isomerase gene. *Biotechnology Letters*, 8: 231-234.

Chiang, L. C.; Gong, C. S.; Chen, L. F. and Tsao, G. T. (1981):

D-xylulose fermentation to ethanol by *Saccharomyces cerevisiae*. Appl., Environ. Microbiol., 42: 284-289.

Clson, M. V. (1981):

Applications of molecule cloning to *Saccharomyces*. Biochem. And Molecular biology, Plenum N. Y. (C. F. wills, 1990)

Cox, B. S. and Bevan, E. A. (1962):

Aneuploidy in yeasts. New Phytol., 61: 342-355.

Cvrckova, F. (1991):

Selection of yeast hybrids by the sulfonyleurea chlorulfuron. App. Microbiol. Biotechnol. 35 (4): 515-516.

Delgenes, J. P.; Moletta, R. and NaVarro, J. M. (1990):

Acid hydrolysis of wheat straw and process considerations for ethanol fermentation by *Pichia stipitis* Y 7124. Process Biochem., 25: 132-135.

Duell, E. A.; Inoue, S. and Utter, M. F. (1964):

Isolation and properties of intact mitochondria from spheroplasts of yeasts. J. Bacteriol., 88: 1762-1773.

Du Preez, J. C. and Prior, B. A. (1985):

A quantitative screening of some xylose-fermenting yeast isolates. *Biotech. Lett.*, 7: 241-246.

Du Preez, J. C.; Bosch, M. and Prior, B. A. (1986):

Xylose fermentation by *Candida shehatae* and *Pichia stipitis*: effect of pH, temperature and substrate concentration. *Enzyme Microb. Technol.*, 8 : 360 – 364.

Ejchart, A. and Putrament, A. (1979):

Mitochondrial mutagenesis in *Saccharomyces cerevisiae*.
I. Ultraviolet Radiation., 60: 173 – 180.

Errat, J. A. and Nasim, A. (1986):

Allelism within the DEX and STA gene families of
S. diastaticus . *Mol. Gen. Genet.* 202: 255 – 256.

Ewida, M. A. (1976):

Genetical studies on certain industrial strains of yeast.
Thesis for M. Sc. Univer. Of Cairo Agric. Fac.

Farahnak, F. T. S.; Ryu, D. D. Y. and Ogrydziak, D. (1986):

“ Construction of lactose-Assimilating and high ethanol-producing yeasts by protoplast fusion.”
Appl. Environ. Microbiol., 51 (2): 362 – 367.

Feliu, J. A.; Gonzalez, G. and de Mas, C. (1990):

Scp production by *Hansenula polymorpha* from xylose.
Process Biochem., 25: 136 – 140.

Ferenezy, L.; Kevei, F. and Szegedi, M. (1975):

High frequency fusion of fungal protoplasts.
Experientia, 31: 1028 – 1030.

**Ferenezy, L.; Kevei, F.; Szegedi, M.; Franko, A. and Rojck, I.
(1976):**

Factors affecting high-frequency fungal protoplast
fusion. Experientia, 32: 1156 – 1158.

Ferrari, M. D.; Neirotti, E.; Albornoz, C. and Saucedo, E.(1992):

Ethanol production from *Eucalyptus* wood hemicellulose
hydrolysate by *Pichia stipitis*.
Biotechnol. Bioeng., 40 (7): 753 – 759.

Foder, K. and Alfoldi, L. (1976):

Fusion of protoplasts of *Bacillus megaterium*.
Proceedings of National Academy of Science of the
USA. 73: 2147 – 2150.

Franzen, C. J.; Liden, G.; Niklasson, C. (1994):

A new method for studying microaerobic fermentations.
II. An experimental investigation of xylose fermentation.
Biotechnol. Bioeng. Vol. 44 (4): 429-435.

Furlan, S. A.; Bouilloud, P.; Streharitano, P. and Riba, J. P.

(1991):

Study of xylitol formation from xylose under oxygen
limiting conditions. Biotechnol. Lett., 13: 203 – 206.

- Garcia-Acha, I.; Lopez-Belmote, F. and Villanueva, J. R. (1966):**
Use of lipase streptozyme for isolation of protoplasts from fungal mycelium.
J. Gen. Microbiol., 45: 515 – 523.
- Gardner, E. J.; Simmons, M. J. and Snustad, D. P. (1991):**
Mutation. In: "Principles of Genetics." 8th Edition.
John Wiley and Sons Inc. New York p. 288 – 319.
- Gautam, S. P.; Kumar-Gupta, A. and Pandey, S. (1993):**
Hybrid construction by fusion of protoplasts of *Endomycopsis fibuligera* and *Saccharomyces cerevisiae*.
Cytobios., 73 (294 – 295): 183 – 188.
- Gilliland, R. B. (1956):**
Maltotriose fermentation in the species differentiation of *Saccharomyces*.
Compt. Rend. Trav. Lab. Carlsberg. Ser. Physiol., 26: 139 – 148.
- Gong, C. S.; Ladisch, M. R. and Tsao, G. T. (1981,c):**
Production of ethanol from wood hemicellulose hydrolyzates by a xylose-fermenting yeast mutant, *Candida* sp. X F217. Biotechnol. Lett., p. 657 – 662.
- Gong, C. S.; Chen, L. F.; Tsao, G. T. and Flickinger, T. C. (1981,b):**
Conversion of hemicellulose carbohydrates.
In Advances in biochemical engineering. Vol. 20, A. Fiechter (ed.), 93 – 118. Berlin: Springer-verlag.

Gong, C. S.; Chen, L. F.; Flickinger, M. C.; Chiang, L. C. and Tsao, G. T. (1981,a):

Production of ethanol from D-xylose by using D-xylose isomerase and yeasts.

Appl. Environ. Microbiol., 41: 430 – 436.

Gong, C. S.; Claypool, T. A., McCracken, L. D.; Maun, C. M.;

Wang, P. D. and Tsao, G. T. (1983):

Conversion of pentoses by yeasts.

Biotechnology and Bioengineering., 25: 85 – 102.

Gregoli, S.; Olast, M. and Bertinchamps, A. (1982):

Radiolytic pathways in gamma irradiated DNA: influence of chemical and conformational factors.

Rad. Res., 89: 238 – 254.

Grewal, H.; Dilbaghi, N. and Sharma, S. (1994):

Protoplast fusion between *Saccharomyces cerevisiae* and *Saccharomyces diastaticus* for ethanol production from starch. ANN. Biol., 10 (1): 80 – 85.

Guebel, D. V.; Cordenons, A.; Cascone, O.; Giulietti, A. M. and Nudel, C. (1992):

Influence of the nitrogen source on growth and ethanol production by *Pichia stipitis* NRRL Y-7124.

Biotechnol. Lett., 14 (12): 1193 – 1198.

Gupthar, A. S. and Garnett, H. M. (1987):

Hybridization of *Pichia stipitis* with its presumptive imperfect partner *Candida shehatae*.

Curr. Genet., 12 (3): 199 – 204.

Halkerston, I. D. K. (1992):

Mutation and repair of DNA. In: "Biochemistry." 2nd Edition, NMS (National Medical series). Williams and Wilkins, Baltimore, London. P. 67 – 73.

Heyndrickx, M.; de Vos, P. and de ley, J. (1991):

Fermentation of D-xylose by *Clostridium butyricum* LMG 123 Lt1 in chemostats.

Enzyme Microb. Technol., 13 : 893 – 897.

Hinnen, A. and Meyhack, B. (1982):

Vectors for cloning in yeast. In current topics in microbiology and immunology. 26: 101 – 117 new York: Springer-verlag.

Holliday, R. (1965):

Induced mitotic crossing-over in relation to genetic replication in synchronously dividing cells of *Ustilage maydis*. Genet. Res. (comb.) 6: 104 – 120.

Holliday, R. (1965):

A new method for the identification of biochemical mutants of microorganisms. Nature, 178: 987.

Hopwood, D. A. and Wright, H. M. (1978):

Molec. Gen. Genet., 192: 307 – 317.

Hopwood, D. A.; Wright, H. M.; Bibb, M. J. and Cohen, S. N.

(1977):

Genetic recombination through protoplast fusion in *Streptomyces*. Nature, London, 268: 171 – 174.

Ibrahim, S. A.; Fatma, M. I.; Badawy, M. K. A. and Nahla, R. M. R. (1998):

Phage-mediated and interspecific gene transfer between *Bacillus subtilis* strains. Egypt. J. Genet. and Cytol. 27 (1): 71-84.

Ishiguro, E. and Miyazato, M. (1993):

Stimulation of survival curves in several bacteria irradiated with ultraviolet and gamma rays.

Radio isotopes, Tokyo 42 (1): 1 – 8.

Jeffries, T. W. (1981):

Fermentation of xylulose to ethanol using xylose isomerase and yeasts.

Biotechnol. Bioeng. Symp., 11: 315 – 324.

Jeffries, T. W. and Kurtzman, C. P. (1994):

Strain selection, taxonomy and genetics of xylose-fermenting yeasts. Enzyme Microb. Technol., 16: 922 - 932.

Johannsen, E.; Eagle, L. and Bredenhan, G. (1985):

Protoplast fusion used for the construction of presumptive polyploids of the D-xylose fermenting yeast *Candida shehatae*. Current Genetics. 9: 313 – 319.

Kao, K. N. and Michayluk, M. R. (1974):

“A method for high-frequency intergeneric fusion of plant protoplasts.” Planta. 115: 355 – 367.

Kitamura, K. and Yamamoto, Y. (1972):

Purification and properties of an enzyme, zymolose, which lyses viable yeast cells.

Arch. Biochem. Biophys., 153: 403 – 406.

Kleinzeller, A. and Kotyk, A. (1967):

Transport of monosaccharides in yeast cells and its relationship to cell metabolism. In: Aspects of yeast metabolism (Mills, A. K. Krebs, H. eds) p.33, Philadelphia: F. A. Davis Co.

Klug, W. S.; Cummings, M. R. and Savage, E. (1993):

Mutation and mutagenesis. In: Essentials of Genetics.”

Macmillan Publishing Comp.

Inc. New York. P. 254 – 279.

Kötter, P.; Amore, R.; Hollenberg, C. P. and Ciriacy, M. (1990):

Isolation and characterization of *Pichia stipitis* xylitol dehydrogenase gene, xyL2 and construction of a xylose-utilizing *Saccharomyces cerevisiae* transformant.

Curr-Genet., 18: 493 – 500.

Kumari, J. A. and Panda, T. (1994):

Intergeneric hybridization of *Trichoderma reesei* QM9414 and *Saccharomyces cerevisiae* NcIM3288 by protoplast fusion.

Enzyme-Microb. Technol., 16 (10): 870 – 882.

Lampen, J. O. (1968):

External enzymes of yeast: their nature and formation.
Antonie Von Leeuwenhoek., 34: 1 [C. F. Wills 1990].

Larkin, P.; Taylor, B. H.; Gersmann, M. and Brettell, R. I. S. (1990):

Direct gene transfer to protoplast.
Plant Physiol., 17: 291 – 302.

Lastick, S. M.; Tucker, M. Y.; Beyette, J. R.; Noll, G. R.. and Grohmann, K. (1989):

Simultaneous fermentation and isomerization of xylose.
Appl. Microbiol. Biotechnol., 30: 574 – 579.

Lodder, J. and Kreger, N. J. W.-Van Rij (1952):

“The yeasts, a taxonomic study”,
North Holand Publishing Co-Amsterdam.

Loray, M. A.; Spencer, J. F. T., Spencer, D. M. and De-Figueroa, L. I. (1995):

Hybrids obtained by protoplast fusion with a salt-tolerant yeast. J. Ind. Microbiol., 14 (6): 508 – 513.

Magdalena, E. Ligthelm; Bernard, A. Prior and James, C. du

Preez (1988, b) :

The induction of D-xylose catabolizing enzymes in *Pachysolen tannophilus* and the relationship to anaerobic D-xylose fermentation.

Biotechnology Letters 10 (3): 207 – 212.

Magdalena, E. Ligthelm; Bernard, A. Prior and James, C. du

Preez (1988,a):

The oxygen requirements of yeasts for the fermentation of D-xylose to ethanol.

Appl. Microbiol. Biotechnol., 28: 63 – 68.

Maleszka, R. and Schneider, H. (1982):

Fermentation of D-xylose, Xylitol and D-Xylulose by yeast.
Can. J. Microbiology, 28: 360-363.

Mauricio, J. C. and Salmon, J. M. (1992):

Rapid spectrophotometric determination of the exponential, constant of ethanol-enhanced proton diffusion in yeasts.

Biotechnology Techniques., 6(1): 27 – 32.

McClary, D. O.; Nultry, W. L. and Miller, G. R. (1959):

Effect potassium versus sodium in the sporulation of *Saccharomyces*. J. Bacteriol., 78: 362 – 368.

Millbank, J. W. and Macrae, R. M. (1964):

Degradation of yeast cell wall by fractionated snail gut enzyme. Nature (London), 20: 1347.

Mohamed, K. A. (1990):

Genetic improvement of yeast ethanol production.

PH. D. Thesis Genetics, Fac. Of Agri. Sci. Ain Shams Univ.

Mohamourides, G.; Lee, H.; Maki, N. and Schneider, H. (1985):

Ethanol accumulation in cultures of *Pachysolen tannophilus* on D-xylose is associated with a transition to a state of low oxygen consumption. Biotechnology. 3: 59 – 62.

Mortimer, R. K. and Schild, D. (1980):

Genetic map of *S. cerevisiae*.

Microbiol. Rev., 44: 519 – 571.

Mortimer, R. K. and Schild, D. (1985):

"Genetic map of *S. cerevisiae*." Edition 9,

Microbiol. Rev., 49: 181 – 206.

Mounolou, J.; Jakob, H. and Slonimski, P. P. (1966):

Mitochondrial DNA from yeast petite mutants.

Biochem. Biophys. Res. Comm., 24: 218.

Moustacchi, E. and Wiliamson, D. H. (1966)

Physiological variations in stallite components in yeast

DNA detected by density gradient centrifugation.

Biochem. Biophys. Res. Comm., 23: 56 – 61.

Nagasäki, S.; Neuman, N. P.; Arnow, P.; Schnable, L. P. and Lampen, J. D. (1966):

An enzyme which degrades the wall of living yeasts.
Biochem. Biophys. Res. Commun. 25: 158 – 164.

Necas, O. (1971):

Cell wall synthesis in yeast protoplasts.
Bacteriol. Rev., 35 : 149 – 170.

Necas, O. (1980):

Regeneration of protoplasts. In Advances in protoplasts research. Edited by L., Ferenczy, G. L. Farkas.
Budapest: Akademiai Kiado, Oxford: Pergamon Press, pp. 151-161.

Orlova, T. I. (1991):

Fusion of protoplasts of inactive variants of two actinomycin c producers and biosynthesis of an antibiotic of a non-actinomycin nature.
Antibiot. Khimioter. 36 (4): 3 – 5.

Passoth, V.; Hansen, M.; Klinner, U. and Emeis, C. C. (1992):

The electrophoretic banding-pattern of the chromosomes of *Pichia stipitis* and *Candida shehatae*.
Curr. Genet., 22: 429 – 431.

Mohamed, K. A. (1990):

Genetic improvement of yeast ethanol production.

PH. D. Thesis Genetics, Fac. Of Agri. Sci. Ain Shams Univ.

Mohamourides, G.; Lee, H.; Maki, N. and Schneider, H. (1985):

Ethanol accumulation in cultures of *Pachysolen tannophilus* on D-xylose is associated with a transition to a state of low oxygen consumption. Biotechnology. 3: 59 – 62.

Mortimer, R. K. and Schild, D. (1980):

Genetic map of *S. cerevisiae*.

Microbiol. Rev., 44: 519 – 571.

Mortimer, R. K. and Schild, D. (1985):

"Genetic map of *S. cerevisiae*." Edition 9,

Microbiol. Rev., 49: 181 – 206.

Mounolou, J.; Jakob, H. and Slonimski, P. P. (1966):

Mitochondrial DNA from yeast petite mutants.

Biochem. Biophys. Res. Comm., 24: 218.

Moustacchi, E. and Wiliamson, D. H. (1966)

Physiological variations in stallite components in yeast

DNA detected by density gradient centrifugation.

Biochem. Biophys. Res. Comm., 23: 56 – 61.

Nagasäki, S.; Neuman, N. P.; Arnow, P.; Schnable, L. P. and Lampen, J. D. (1966):

An enzyme which degrades the wall of living yeasts.
Biochem. Biophys. Res. Commun. 25: 158 – 164.

Necas, O. (1971):

Cell wall synthesis in yeast protoplasts.
Bacteriol. Rev., 35 : 149 – 170.

Necas, O. (1980):

Regeneration of protoplasts. In Advances in protoplasts research. Edited by L., Ferenczy, G. L. Farkas. Budapest: Akademiai Kiado, Oxford: Pergamon Press, pp. 151-161.

Orlova, T. I. (1991):

Fusion of protoplasts of inactive variants of two actinomycin c producers and biosynthesis of an antibiotic of a non-actinomycin nature.
Antibiot. Khimioter. 36 (4): 3 – 5.

Passoth, V.; Hansen, M.; Klinner, U. and Emeis, C. C. (1992):

The electrophoretic banding-pattern of the chromosomes of *Pichia stipitis* and *Candida shehatae*.
Curr. Genet., 22: 429 – 431.

Patrick, Y.; Wang; Charles Shopsis and Henry Schneider (1980):

Fermentation of a pentose by yeasts.
Biochemical and Biophysical Research communications.
94 (1) : 243 – 254.

Phaff, H. J.; (1963):

Cell wall of yeasts. Ann. Rev. Biochem. 17: 15 – 30.

Pittman, D. D. and Pedigo, D. R.(1959):

Photoreactivation studies on yeast.
Exptl. Cell. Res., 17: 395 – 397.

Pittman, D. D.; Ranganathan, B. and Wilson, F. L. (1959):

Photoreactivation studies on yeast.
Exptl. Cell. Res., 17: 368 – 377.

Quemener, B. and Mercier, C. (1980):

Dosage rapide des glucides ethanol-solubles des graines
leumineuses parchromato graphic liquid Sous haute
pression. Lebensmittel-Wiss. Technol., 13: 7 – 12.

Regan, J. D. and Setlow, R. B. (1974):

Two forms of repair in the DNA of human cells
damaged by chemical carcinogens and mutagens.
Cancer Res., 34: 3318 – 3325.

Reed, G. and Nagodawithana, T. W. (1991):

Yeast technology. 2nd ed. An AVI book.
Van Nostrand Reinhold, New York.

- Reeves, E.; Kavanagh, K. and Whittaker, P. A. (1992):**
Multiple transformation of *Saccharomyces cerevisiae* by protoplast fusion.
FEMS-Microbiol. Lett., 99 (2-3): 193 – 198.
- Russell, I. And Stewart, G. G. (1979):**
Spheroplast fusion brewer's yeast strains.
J. Inst. Brew. London, 85: 95 – 98.
- Sakai, T.; Koo, K.; Saitoh, K. and Katsuragi, T. (1986):**
Use of protoplast fusion for the development of rapid starch-fermenting strains of *S. diastaticus*.
Agric. Biol. Chem., 50: 297 – 306.
- Sarthy, A. V.; McConaughy, B. L.; Lobo, Z.; Sundstrom, J. A.; Furlong, C. E. and Hall, B. D. (1987):**
Expression of *Escherichia coli* xylose isomerase gene in *Saccharomyces cerevisiae*.
Appl. Env. Microbiol., 53: 1996 – 2000.
- Schaeffer, P.; Cami, B. and Hotch Kiss, R. D. (1976):**
Fusion of bacterial protoplasts.
Proceed. the Nat. Acad. Sci. of the USA. 73: 151 – 215.
- Schneider, H. P.; Wang, Y.; Chen, Y. K. and Maleszka, R. (1981):**
Conversion of D-xylose into ethanol by the yeast *Pachysolen tannophilus*. Biotechnol. Lett., 3: 89 – 92.

Schvester, P.; Robinson, C. W. and Moo-Young, M. (1983):

Biotech. Bioeng. Symp., 13: 131 – 152.

Schwartz, D. C. and Cantor, C. R. (1984):

Separation of yeast chromosome-sized DNAs by pulsed field gradient gel electrophoresis. Cell., 37: 67.

Selebane, E. T.; Govinden, R.; Pillay, D.; Pillay, B. and Gupthar, A. S. (1993):

Genomic comparisons among parental and fusant strains of *Candida shehatae* and *Pichia stipitis*.

Current Genetics., 23: 468 – 471.

Setlow, J. K. 1966):

Photoreactivation. Rad. Res., Suppl., 6: 141 – 155.

Setlow, R. and Setlow, J. K. (1963):

Evidence that ultraviolet induced thymidine dimers in DNA cause biological damage.

Proc. Nat. Acad. Sci. (Wash.) 48: 1259 – 1267.

Sharma, R. P. and Grover, R. P. (1970):

Interaction of mutational-lesions induced by ethyl methane sulfonate and gamma rays in meals of *Drosophila*. Mutation Res., 10: 221 – 226.

Sheetz, R. M. and Dickson, R. C. (1981):

LAC4 is the structural gene for β -galactosidase in *Kluyveromyces lactis*. Genetics., 98: 729 – 745.

Shupe, C.; Yibin, G.; Wang, Yushui, Liu, Yongbin and Yunzhong, S. (1995):

Inter-kingdom protoplast fusion and cytoplasmic integration. Biomed. Lett., 206 (52): 101-112.

Sipiczki, M. and Ferenczy, L. (1977):

Protoplast fusion of *Schizosaccharomyces pombe* auxotrophic mutants of identical mating type.

Mol. Gen. Genet., 151: 77 – 81.

Slininger, P. J.; Bothast, R. J.; Van Cauwenberge, J. E. and Kurtzman, C. P. (1982):

Conversion of xylose to ethanol by the yeast *Pachysolen tannophilus*. Biotechnol. Bioeng., 24: 371 – 384.

Slininger, P. J.; Bothast, R. J.; Okos, M. R. and Ladisch, M. R. (1985):

Comparative evaluation of ethanol production by xylose-fermenting yeasts presented high xylose concentrations. Biotechnol. Lett., 7: 431 – 436.

Smith-Keary, P. (1991):

Mutation. In: "Molecular Genetics". 1st Edition.

Macmillan Educ. Ltd., London, Hong Kong. P.182- 203.

Stewart, G. G. (1981):

The genetic manipulation of industrial yeast strains.

Ann. Rev. Microbiolo., 37: 121 – 143.

Suihko, M. L. and Poutanen, K. (1984):

D-xylulose fermentation by free and immobilized *Saccharomyces cerevisiae* cells.
Biotechnol. Lett., 6: 189 – 194.

Suzuki, D. T.; Griffiths, A. J. and Lewontin, R. C. (1981):

Mechanisms of genetic change. In: "Introduction to genetic analysis." W. H. Freeman and co. San Francisco, USA. P. 663 – 725.

Svoboda, A. (1978):

Fusion of yeast protoplasts induced by polyethylene glycol. J. Gen. Microbiol., 109: 169 – 175.

Takuma, S.; Nakashima, N.; Tantirungkij, M.; Kinoshita, S.;

Okada, H.; Seki, T. and Yoshida, T. (1991):

Isolation of xylose reductase gene of *Pichia stipitis* and its expression in *Saccharomyces cerevisiae*.
Appl. Biochem. 28-29: 327 – 340.

Talkhan, F. N. (1991):

Induction of mutants in *Cephalosporium* spp. In relation to antibiotic production and the late wilt disease in maize. Ph. D. thesis Genetics. Fac. of Agric. Sci. Ain Shams Univ.

Tamaki, H. (1978):

Genetic studies of ability to ferment starch in *Saccharomyces*: Gene polymorphism.
Mol. Gen. Genet. 164: 205 – 209.

Taya, M.; Honda, H. and Kobayanhl, T. (1984):

Lactose utilizing hybrid strain derived from *S. cerevisiae* and *Kluyveromyces lactis* by protoplast fusion. Agric. Biol. Chem., 28: 2239 – 2243.

Toivola, A.; Yarrow, D.; Bosch, E. V. D.; Duken, J. P. V. and Scheffers, W. A. (1984):

Alcoholic fermentation of D-xylose by yeasts. Applied and Environmental Microbiology, 47 (6): 1221-1223.

Ueng, P. P.; Hunter, C. A.; Gong, C. S. and Tsao, G. T. (1981):

D-xylulose fermentation in yeasts. Biotechnol. Lett., 3: 315 – 320.

Vallin, C. and Ferenczy, L. (1985):

Protoplast intergeneric of *Candida tropicalis* and *Pichia guilliermondii*. Rev.-Latinoam. Microbiol., 27 (4): 323 – 327.

Van solingen, D. and Vander Plaat, J. B. (1977):

Fusion of yeast spheroplasts. J. Bact., 130: 946 – 947.

Villanueva, J. R. (1966):

Protoplasts in fungi. In the fungi. Vol. 2, G. C. Ainswarth and A. S. sussman (eds). 3-62 London, Academic press.

Villanueva, J. R. and Garcia-Acha, I. (1971):

Production and use of fungal protoplasts. In methods in microbiology. Vol. 4, C. Booth (ed). 665-718. London: Academic press.

Vogel, A. T. (1955):

A convenient growth medium for *Neurospora*.
Microb. Genet. Bull., 13: 42 – 43.

Wallin, A.; Glimelius, K. and Eriksson, T. (1974):

“Induction of aggregation and fusion of *Daucus carota* protoplasts by polyethylene glycol”.
Pflanzen Physiol., 74: 64 – 80.

Wang, P. Y.; Shopsis, C. and Schneider, H. (1980):

Fermentation of a pentose by yeasts.
Biochem. Biophys. Res. Commun., 94: 248 – 254.

Watari, J.; Kudo, M.; Nishikawa, N. and Kamimura, M. (1990):

Construction of flocculent yeast cells (*Saccharomyces cerevisiae*) by mating or protoplast fusion a yeast cell containing the flocculations gene FLO₅.
Agric. Biol. Chem., 54 (7): 1677 – 1681.

Watson, J. D.; Hopkins, N. H.; Robert, J. W.; Steitz, J. A. and Weiner, A. M. (1987):

“ Recombinant DNA at work.” In: Molecular Biology of the gene, Gillen, J. R. (eds), 4th edit, The Benjamin/cummings publishing Company, Inc., p. 595 – 617.

Widdel, F. (1980):

Anaerobic Abbau Von Fettsäuren und Benzo esäure
durch neu isolierte Arten sulfat-reduzierender Bakterien
Disseration, Universität Göttingen.

Witte, V.; Grossmann, B. and Emeis, C. C. (1989):

Molecular probes for the detection of *Kluyveromyces
marxianus* chromosomal DNA in electrophoretic
karyotypes of intergeneric protoplast fusion products.
Arch. Microbiol., 152 (5): 441 – 446.

Wood, C. H. (1968):

UV induced lethality and mutation in synchronized
cultures of *Ustilago hordei*. Mut. Res., 6: 391 – 400.

Yotsuyanagi, Y. (1962):

Etudes Sur le chondriome de la levure, I. Variation de
l'ultrastructure du chondriome au cours du cycle de la
croissance aerobique, J. ultrastruct. Res., 7: 121 – 140.

Zhang-Borun and Cai-Jinke (1990):

Construction of lactose-fermenting and ethanol
producing fusants by intergeneric protoplasts fusion in
yeast. Acta. Microbiol. Sin., 30 (3): 182 – 188.

Zimmermann, U. (1982):

Electric field-mediated fusion and related phenomena.
Biochimica et Biophysica Acta. 694: 227 – 277.

Zimmermann, U. (1983):

Electrofusion of cells: principles and industrial potential.
Trends in Biotechnology, 1 (5): 149 – 155.

Zimmermann, U. and Vienken, J. (1982):

Electric field-d-induced cell-to-cell fusion.
J. of Membrane Biology. 67: 165 – 182.

Zimmermann, U.; Vienken, J. and Scheurich, P. (1980):

In Biophysics of structure and Mechanism Vol. 6, K.
Gerson de (ed.), 86: Oxford. Springer-Verlag.