

# CURRICULUM VITAE

FRAGISKOS N. KOLISIS

Title : NTUA Emeritus Professor in Biotechnology

Positions : Biotechnology Laboratory

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Marital Status : Married (two children)

## Research positions

1973 - 1975	Laboratory of Biochemistry, University of Southampton, UK
1977-1983	Laboratory of Enzymology, Institute of Biological Research & Biotechnology, National Hellenic Research Foundation
1984-1985	Enzyme Technology Laboratory, Universite de Technologie de Compiegne, France
1985-1989	Laboratory of Enzymology, Institute of Biological Research & Biotechnology, National Hellenic Research Foundation
1990-present	Biotechnology Laboratory, School of Chemical Engineering, NTUA
2005- 2010	Director of the Institute of Biological Research & Biotechnology, National Hellenic Research Foundation
2005- 2010	Head of the Program Metabolic Engineering and Bioinformatics, Institute of Biological Research & Biotechnology, NHRF

## Academic Activities

- Member of the Biotechnology Committee of IUPAC (2005 - present )
- Member of the Steering Committee of the Section of Applied Biocatalysis of the European Federation of Biotechnology (2001-2004)
- Member of the Steering Committee of the European Federation for the Science and Technology of Lipids (2003 – present)

- Member of the General Assembly of the European Federation of Biotechnology (EFB) (1999-2003)
- Member of the Management Committee COST/EU (1996- present) for the actions D6, D10, D25
- Member of the Steering Committee of the School of Chemical Engineering of NTUA (1999-2000)
- Member of the Steering Committee of the School of Chemical Engineering of NTUA (1999-2000)
- General Secretary of Panhellenic Union of Biotechnology (1988-1991)
- Member of the Working Party “Applied Biocatalysis” of EFB (from 1988-present)
- Chairman of the of Panhellenic Union of Biotechnology (1991-1994)
- Member of the Steering Committee of Panhellenic Union of Biotechnology (1994-present)
- Director of the Division of Synthesis and Development of Industrial Processes of the School of Chemical Engineering, NTUA (1999-2000).
- Director of the Institute of Biological Research and Biotechnology of The National Hellenic Research Foundation, and member of the NHRF/Management Committee 2005- 2010
- Greek representative in EU for Bioeconomy (KBBE)
- Member of the European Union Working Group on Synthetic Biology, 2009
- Member of the Management Committee of COST Action “plant metabolic engineering for high value products (2011-15)
- Member of the Management Committee of COST Action , European systems genetics network for the study of complex genetic human diseases using mouse genetic reference populations (SYSGENET) (2010-14)
- Official Member of the Technical Committee of the Ministry of Energy and Environment for Biofuels.
- Vice President of Hellenic Open University and President of the Special Account for Research Grants - EAKE (2015-16)
- Vice President and member of the Administrative Board of the State Scholarships Foundation (IKY) (2016 – 2020)
- Member of the Scientific Committee of European Society of Applied Biocatalysis (ESAB) (1990 - )
- Director of the National Research Infrastructure “Omics Engine” on Synthetic Biology (2016 - .....)
- Leader of the Working Group of Synthetic Biology of ESAB (2021 - )

## **Field of Research Activities**

- a. Genomics – Functional Genomics - Metabolic Engineering – Systems and Synthetic Biology
- b. Production, purification, characterization, immobilization and structure/function studies of enzymes.
- c. Biocatalysis in non conventional media (low water content systems, organic solvents, solvent free systems, microemulsion systems, supercritical carbon dioxide) with enzymes and catalytic antibodies.

### **Organization and teaching in International Post Graduate Courses and Workshops**

- a. Organizer in Athens (School of Chemical Engineering, NTUA) of the European Workshop “*Enzyme Technology*” (supported by E.U) duration 15 days (30/10 - 10/11/1989)
- b. Organizer in Athens (School of Chemical Engineering, NTUA) of the European Workshop “*Enzyme Biotechnology*” (supported by E.U) , duration 15 days (7/10 - 20/10/1991)
- c. Organizer in Athens (School of Chemical Engineering, NTUA) of the European Workshop “*Biocatalysis in Non-Conventional Media*” (supported by E.U) , duration 15 days (19 - 30/10/1992)
- d. Co-organizer in Athens (School of Chemical Engineering, NTUA) of the European Workshop “*Extremophilic Microorganisms*” (supported by E.U), duration 15 days (19/4 - 30/4/1994)
- e. Teaching in the Post Graduate Program in Biotechnology organized by the Department of Chemistry, University of Ioannina, (1999- 2003).
- f. Teaching in the Post Graduate Program in Biotechnology organized by the Department of Biology, University of Athens, (2004-2010).
- g. Director of the Master of Sciences Course “Bioeconomy: Biotechnology and Law” of the International Hellenic University (2017 – 2021).
- h. Επιστημονικός Υπεύθυνος του επιμορφωτικού προγράμματος «Βιοοικονομία και Βιοτεχνολογία» του Κέντρου Δια Βίου Μάθησης του ΕΜΠ (2022 - )
- j. Organization of a series of Webinars for ESAB on Synthetic Biology and Metabolic Engineering Tools (2021 ---)

### **Other relevant activities**

- Referee in international journals (Biotechnology and Bioengineering, Applied Biocatalysis, Journal of Colloid and Interface Science, Biocatalysis and Biotransformation, European Journal of Lipid Science and Technology, J. of Molecular Catalysis B. Enzymatic, and others)
- Member of the Editorial Board of the Biocatalysis and Biotransformation
- Member of the Editorial Board of the European Journal of Lipid Science and Technology
- Invited speaker, Session Chairman ( e.g Systems Biology Session in the FEBS International Conference Athens, 2008) in National (President of the Conference for Food Sciences and Technology, Athens 2007) and

International Conferences (President of the International Conference on Lipid Sciences and Technology, Athens 2008). Member of the Scientific Committee in International Conferences (e.g 13 International Conference of Biotechnology, China, 2009, 11 International Congress on Food Science and Engineering, Athens , 2011).

## **Research grants**

- 1985-1989 : **Bioconversion of hydrophobic and hydrophilic compounds by enzyme systems**  
European Union ( BAP) (180.000 euro)
- 1991-1994 : **Pharmaceuticals. Application of supercritical gases, micro-emulsions, organic solvents**  
European Union ( BRIDGE) (250 000 euro)
- 1993-1997 : **Biocatalysis under extreme or non-classic conditions**  
European Union ( COST/D 6) (30.000 euro)
- 1994-1996 : **Structure-function lipase relationships in low water media**  
European Union (BIOTECH) (350.000 euro)
- 1994-1997: **Production of sugar fatty acid esters from renewable agricultural resources**  
European Union (AAIR) (250.000 euro)
- 1994-1997: **New strategies for the development of integrated processes for the generation of compounds with flavouring and/or other functional properties from natural material**  
European Union ( AAIR) (250.000 euro)
- 1994-1997 : **Reactivite des esters gras et du glycerol/ nouveaux procedes**  
European Union (AAIR) (250.000 euro)
- 1998-2002 : **Enzymes as asymmetric catalysts in transformations of organic molecules and bio-molecules: Application to compounds of practical importance**  
European Union (COST/D 10)

- 1998-2000 : **Enzymatic modification of natural antioxidants**  
Greek General Secretariat for Research and Technology  
(300.000 euro)
- 1999-2001 : **Enzymatic improvement of mastic oil biological properties**  
Greek General Secretariat for Research and Technology (300.000 euro)
- 1998-2003 : **Catalysis of sequence selective amide and peptide cleavage by antibodies and proteins**  
European Union (TMR) (280.000 euro)
- 2003-2005 : **Enzymic Processes – Tools for the synthesis of environ-mentally friendly products**  
Greek General Secretariat for Research and Technology Greek - Czech collaboration program (12.000 euro)
- 2005-2007 : **Enzymatic modification of mastic oil constituents for the improvement of its biological activity in relation to angiogenesis**  
Greek General Secretariat for Research and Technology (180.000 euro)
- 2005 – 2009 **Το χρωματικό μήνυμα του άνθους – Μελέτη και αξιοποίηση των χρωστικών από άνθη (ενζυμική τροποποίηση φλαβονοειδών )**  
Greek General Secretariat for Research and Technology (70.000 euro)
- 2006-2008 : **Προς την υλοποίηση ενός φαινοτυπικού σημασιολογικού ιστού**  
Γενική Γραμματεία Έρευνας & Τεχνολογίας, στο πλαίσιο της πράξης «Ενταξη στο Ελληνικό E&T σύστημα ερευνητών από το εξωτερικό - ENTEP 2004 (93.600 ευρώ)
- 2007-2008 : **Development of a Functional Genomics Grid Portal (distributed computing)** European Union 2000-2006 (365,243 ευρώ)
- 2007-2008 : **Application of the principles of metabolic engineering and stochastic modeling for the optimization of biosynthesis of fatty acids in plant embryos.**

Greek- French collaboration, General Secretariat of Research and Technology (12.380 ευρώ)

2009-2012 : **e-Laboratory for Interdisciplinary Collaborative Research in Data Mining and Data-Intensive Sciences (e-LICO)**

European Union (ICT) (380.000 euro)

2011- 2014: **PIK3CA Oncogenic Mutations in Breast and Colon Cancers: Development of Targeted Anticancer Drugs and Diagnostics.**

General Secretariat of Research and Technology (60 000 euro)

2011-2014 **Development of novel Angiogenesis-Modulating Pharmaceuticals by screening of natural compounds and synthetic analogues**

General Secretariat of Research and Technology (300 000 euro)

2011-2014 : **Systematic screening for novel hydrolases from hot environments. Identification of novel genes and enzymatic functionalities, improvement of metagenomic screening, library formation and bioinformatic relevant techniques.**

European Union (403 000 euro)

2013 – 2015: **European Network of the Fossil Energy Coalition (FENCO) Novel techniques for seabed monitoring of carbon dioxide leakage and approaches based on conceptual reservoir, cap rock and overburden migration models (2013 -2015).**

**Norwegian Geotechnical Institute, Plymouth Marine Laboratory, Scottish Association for Marine Sciences, NTUA Biotechnology Lab.**

**Budget for NTUA 140 000 €**

2015 – 2020 **OMICS Engine National Infrastructure: Synthetic Biology: From OMICS technologies to genomic engineering. Budget for NTUA 490 000 (EU and GSRK)**

2017 – 2021 **BIONAMA «Ανάπτυξη Νανομαγνητικού Βιοαντιδραστήρα για την Συνεχή Παραγωγή Βιομάζας Μικροφθκών και Προϊόντων Υψηλής Προστιθέμενης Αξίας» budget 250 000**

2018 – 2022 **BioroBoost – Standards in Synthetic Biology (EU)**

2020 – 2023 **BIOFOS Metagenomic analysis of the bacterial population of stone surfaces of monuments and development of nano-biomaterials for the sustainable protection of cultural heritage. (GSRK – Έρευνώ – Καινοτομώ – Δημιουργώ) budget : 200 000 euro**

## **International Collaborations (*indicative*)**

*Universities (the following collaborations were established mainly through our common participations in EU research projects)*

- Enzyme Technology Laboratory, Universite de Technologie de Compiegne, France
- Protein and Cellular Engineering Lab., Universite de la Rochelle, France
- Chemical Engineering Department, Technological University of Hannover, Germany
- Department of Biochemistry, University of Napoli, Italy. 6. C.S.I.C.
- Institute of Catalysis, Autonoma Universidade Madrid, Spain
- Enzyme Technology Laboratory, GBF, Brawnschweig, Germany
- Institut National de Science Applique, Toulouse, France
- Enzyme Biotechnology, University of Munster, Germany
- CNRS, Marseille, France
- SINEF, University of Trodheim, Norway
- Institut National Polytechnique de Lorraine, Nancy, France
- Biochemical Engineering Department, Technical University of Lisbon, Portugal
- Institut National Polytechnique Toulouse, France
- Enzyme Technology Laboratory, Strathelyde, U.K.
- Instituto Technologica, Universidad Polytechnica, Valencia, Spain.
- Orebro University, Sweden
- Norwegian Geotechnical Institute,
- Plymouth Marine Laboratory, Scottish Association for Marine Sciences.

**Industries** (*the following collaborations were established mainly through our common participations in EU research projects*)

- Merck, Germany
- Great Lakes Chemical, Konstands, Germany
- Unilever, The Netherlands
- Recordatti Chemicals, Milan, Italy
- Organisation Nationale Interprofessionnelle des Oleagineux (ONIDOL), France
- Institut Francais du Petrol, France
- Institut des Corps Gras (ITERG), France
- CECA SA, Levallois Perret, France
- Oxford Asymmetry LTD, Abingdon, UK
- Chiroscience LTD, Cambridge, UK
- BIORYL, Greece
- Sigma
- Novo

## *Scholarships*

- National Society of Immunology (1977-1979)
- NHRF (1979-1980)
- European Union (1984-1985)

**Publications:** Over 150      **Citations:** (over 5000)

**Participation in Conferences:** 50 National , 150 International

**PhDs awarded under my supervision**

1. Thomas Valis (Biochemist)
2. Georgia Kondelia (Biochemist)
3. Vassiliki Sereti (Chemical Engineer)
4. Vasso Skouridou (Chemical Engineer)
5. Christina Tsitsimpikou (Chemist)
6. Fotini Mellou (Chemist)
7. Eric Franqueville (Biochemist)
8. Aristoteles Chatziioannou (Computer and Mechanical Engineer)
9. Triantaphylos Paparountas (Biochemist – Bioinformatician)
10. Epaminondas Xanthakis (Chemical Engineer)
11. HeleniTheodosiou (Biologist)
12. Harby Ezzeldeen (Art Conservation)
13. Panayiotis Moulos (Applied Mathematician)
14. Eleftherios Pilalis (Biologist/ Bioinformatician)
15. Stavros Gremos (Chemical Engineer)
16. Marianthi Logotheti (Chemical Engineer)
17. Maria Savvidou (Mechanical Engineer)
18. Makis Ladoukakis (Chemical Engineer)
19. Dimitra Zarafeta (Chemical Engineer)
20. Dimitra Gialama (Chemical Engineer)
21. Elias Matis (Chemists)
22. Dafni Delivoria (Chemist)
23. Panayiotis Ayioutantis(Chemical Engineer)

**Numerous of diploma thesis for the final year students of the School of Chemical Engineers of NTUA**

**(APPENDIX)**

**Publications**

*(peer reviewed articles)*

1. J. E. G. Barnett and F. N. Kolisis (1974). The reaction of N-acetylneuraminic acid lyase with chloropyruvate. *Biochem. J.*, 143, 487-490.



2. F. N. Kolis, T. G. Sotiroudis and A. E. Evangelopoulos (1980). The protective role of pyruvate against heat inactivation of N-acetylneuraminidase Lyase. *FEBS Letters*, 121, 280-283.
3. F. N. Kolis (1984). Studies on acetylneuraminidase cytidylyltransferase from human placenta. *Arch. Intern. Physiol. Biochem.*, 92, 179-183.
4. F. N. Kolis (1985). Number and function of sulfhydryl groups of N-acetylneuraminidase Lyase. *Arch. intern. Physiol. Biochem.*, 93, 89-94.
5. F. N. Kolis (1986). An immobilized bienzyme system for assay of sialic acids. *Biotechnol. App. Biochem.*, 8, 148-152.
6. F. N. Kolis and J. F. Hervagault (1986). Theoretical and experimental study of the competition of N-acetylneuraminidase lyase and CMP-sialyl synthase for their common substrate N-acetylneuraminic acid. *Intern. Biochem.*, 13, 493-500.
7. F. N. Kolis, S. Demignot and D. Domurado (1987). Prolongation of the *in vivo* plasmatic half life on an enzymatic activity. *Ann. NY Acad. Sci.*, 501, 454-460.
8. F. N. Kolis and D. Thomas (1987). Continuous assay of Neuraminidase activity by a bienzyme system immobilized in an artificial membrane. *Biotechnol. Bioengin.*, XXX, 160-163.
9. G. Sakellaris, F. N. Kolis and A. E. Evangelopoulos (1988). Surface localization of sialic acids in *Lactobacillus plantarum*. *Biochem. Biophys. Res. Commun.*, 155, 3, 1126-1132.
10. F. N. Kolis and A. E. Evangelopoulos (1988). Studies in metabolic regulation and estimation of sialic acids by enzyme immobilization techniques. *Nutrition Growth and Cancer. Progr. Clin. Biol. Resear.* Alan R. Liss Inc. NY 413-420.
11. A. Xenakis, T.P. Valis and F. N. Kolis (1989). Use of microemulsion systems as media for heterogeneous enzymic catalysis. *Prog. Colloid. Polym. Sci.*, 79, 88-93.
12. F. N. Kolis, T. Valis and A. Xenakis (1990). Lipase-catalyzed esterification of fatty acids in nonionic microemulsions, *Ann. New York Acad. Sci.* 613, 674-680.
13. F. Andreadaki, F. N. Kolis, G. Sakellaris and A.E. Evangelopoulos (1990). Incorporation studies of free N-acetylneuraminic acid and CMP-N-acetyl-neuraminic acid by intact cells of *Lactobacillus plantarum*. *Biotechnol. Appl. Biochem.*, 12, 653-660.
14. A. Xenakis, T. Valis and F. N. Kolis (1991). Microemulsions as a tool for enzymatic studies. The case of lipase. *Prog. Colloid Polym. Sci.*, 84, 508 - 511.
15. T. Valis, A. Xenakis and F. N. Kolis (1992). Comparative studies of lipase from *Rhizopus delemar* in various microemulsion systems, *Biocatalysis*, 6, 267-276
16. H. Stamatis, A. Xenakis, S. Sztajer, U. Megne and F. N. Kolis (1992). Studies on the specificity of *Penicillium simplicissimum* lipase catalyzed esterification reactions in microemulsions. *Progress Biotechn.* 8, 733-738.
17. T. Scheper, U. Bornscheuer, A. Capewell, A. Herar, H. G. Hundek, H. Meyer, F. Schubert and F. N. Kolis (1992). A comparison of enzymatic reactions in aqueous, organic and multiphase systems. *Progress Biotechn.* 8, 37-44.
18. G. Kodelia and F. N. Kolis (1992). Studies on the reaction catalyzed by subtilisin for the acylation of flavonoids with fatty acids in organic solvents. *Ann. NY Acad. Sci.*, 672, 451-457.
19. A. Capewell, U. Bornscheuer, T. Scheper, H. H. Meyer and F. N. Kolis (1992). A comparison of enzymatic reactions in aqueous, organic and supercritical phases. *Ann. NY Acad. Sci.* 672, 336-342.
20. H. Stamatis, A. Xenakis, M. Provelegiou and F. N. Kolis (1993). Esterification reactions catalyzed by lipase in microemulsions. The role of enzyme localization in relation to its selectivity. *Biotechn. Bioengin.* 42, 103-110
21. U. Bornscheuer, A. Herar, L. Kreye, V. Wendel, A. Capewell, H. H. Meyer, T. Scheper and F. N. Kolis (1993). Factors affecting the lipase catalyzed transesterification reactions of 3-hydroxyesters in organic solvents. *Tetrahedron Asymmetry* 4 (5), 1007-1016.
22. H. Stamatis, A. Xenakis, U. Menge and F. N. Kolis (1993). Kinetic study of lipase catalyzed esterification reactions in w/o microemulsions. *Biotechn. Bioengin.* 42, 931-937.

23. A. Xenakis, H. Stamatis, A. Maliaris and F. N. Kolisis (1993). Effects of alcohols on the structure of AOT reverse micelles with respect to different enzyme activity. *Progr. Colloid Polym. Sci.*, 93, 373-376.
24. H. Stamatis, A. Xenakis and F. N. Kolisis (1993). Enantiomeric selectivity of a lipase from *Penicillium simplicissimum* in the esterification of menthol in microemulsions. *Biotechnol. Lett.*, 15, 471-476.
25. H. Stamatis, A. Xenakis, U. Bornscheuer, T. Scheper, U. Menge and F. N. Kolisis (1993). *Pseudomonas cepacia* lipase: esterification reactions in AOT microemulsion systems. *Biotechnol. Lett.*, 15, 703-708.
26. U. Bornscheuer, O-W. Reif, R. Lausch, R. Freitag, T. Scheper, U. Menge and F. N. Kolisis (1994). Purification, crystallization and characterization of lipase from *Pseudomonas cepacia*. *Biochem. Biophys. Acta.* 1201, 55-60.
27. G. Kodelia, K. Athanasiou and F. N. Kolisis (1994). Cytogenetic effects of rutin and enzymatically synthesized butyryl-rutin ester on mammalian cells in culture. *Appl. Biochem. Biotechnol.* 44 (2), 205-212.
28. C. Tsitsimpikou, D. Voutou, P. Christakopoulos, D. Kekos, B. J. Macris and F. N. Kolisis (1994) Studies of the effect of organic solvents on the stability of b-glucosidase from *Fusarium oxysporum*. *Biotech. Lett.* 16, 57-62.
29. U. Bornscheuer, H. Stamatis, A. Xenakis, T. Yamane and F. N. Kolisis (1994). A comparison of different strategies for lipase-catalyzed synthesis of partial glycerides. *Biotech. Lett.* 16, 697-702.
30. H. Stamatis, A. Xenakis, S. Dimitriadis and F. N. Kolisis (1995) Catalytic behavior of *Pseudomonas cepacia* lipase in w/o microemulsions. *Biotechnol. Bioengin.* 45, 33-41.
31. H. Stamatis, A. Xenakis, F. N. Kolisis and A. Malliaris (1994) Lipase localization in water-in-oil microemulsions studied by fluorescence energy transfer. *Progr. Colloid Polym. Sci.* 97,253-255.
32. H. Stamatis, A. Xenakis and F. N. Kolisis (1995). A novel approach for lipase reuse and product recovery in esterification reactions performed in microemulsions. *Ann. NY Acad Sci.* 298, 237-241.
33. P. Christakopoulos, D. Kekos, F.N. Kolisis and B.J. Macris (1995). Controlling simultaneous production of endoglucanase and beta - glucosidase by *Fusarium oxysporum* in submerged culture. *Biotechnol. Lett.* 17, 883-888.
34. A. Ballesteros, U. Bornscheuer, A. Capewell, D. Combes, J-F. Condoret, K. Koenig, F. N. Kolisis, A. Marty, U. Menge, T. Scheper and A. Xenakis (1995) Enzymes in non-conventional phases. *Biocatalysis*, 13, 1-42
35. Yakoumis, I., Vlachos K., Kontogeorgis G.M., Coutisikos Ph., Kalospiros N., Kolisis F.N., and D.Tassios (1996) Application of LCVM model to systems containing organic compounds and supercritical carbon dioxide. *J. of Supercritical Fluids*9, 88-98.
36. Tsitsimpikou C., Xirogianni K., Markopoulou O., and Kolisis F.N. (1996) Comparison of the ability of  $\beta$ -glucosidases from almonds and *Fusarium oxysporum* to produce n-alkyl -  $\beta$  - glycosides in organic solvents. *Biotechnology Letters.* 18, 387-392.
37. H.Stamatis, J.Macris and F.N. Kolisis (1996) Esterification of hydrophilic diols catalysed by lipase in microemulsions. *Biotechnology Letters*, 18, 541-546.
38. V. Papadimitriou, A. Xenakis, C.T. Cazianis , H. Stamatis, M. Egmont and F.N. Kolisis (1996) EPR Studies of Cutinase in Microemulsions, *Ann. N.Y. Acad. Sci.* 799,275-280.
39. S. Avramiotis, H. Stamatis, F.N. Kolisis, P. Lianos and A. Xenakis (1996) Structural studies of Lecithin- and AOT- Based water-in-oil microemulsions, in the presence of lipases. *Langmuir*, 12(26), 6320-6325.
40. J. Macris, H. Stamatis and F.N. Kolisis (1996) Microemulsions as a tool for the regioselective lipase-catalysed esterification of aliphatic diols. *App. Microb. Biotechnol.* 46, 521-523.
41. D. J Hatzinikolaou, J.B. Macris, P. Christakopoulos, D. Kekos, F.N. Kolisis and G. Fountoukidis (1996) Production and partial characterisation of extracellular lipase from *Aspergillus niger*. *Biotechnol. Letters*, 18, 547-552.

42. C. Tsitsimpikou, H. Daflos and F.N. Kolisis (1996) Comparative studies on the sugar esters synthesis catalysed by *Candida antarctica* and *Candida cylindracea* lipases in n-hexane, *Journal of Molecular Catalysis B: Enzymatic.*, (3), 189-192
43. Avramiotis S., Stamatis H., Kolisis F.N. and Xenakis A. (1997) *Pseudomonas cepacia* lipase localization in lecithin and AOT w/o microemulsions. A fluorescence energy transfer study. *Prog. Colloid Polym. Sci.*, 105, 180- 1845
44. C. Tsitsimpikou, P. Christakopoulos, M. Makropoulou, D. Kekos, B.J.Macris and F.N. Kolisis (1997). Role of methanol in the catalytic behavior of  $\beta$ - glucosidase from *Fusarium oxysporum*. *Biotech. Letters.* 20,420-425.
45. Papadimitriou V., Xenakis A., Cazianis C.T. and F.N. Kolisis (1997) Structural and catalytic aspects of cutinase at controlled hydration levels.*J. Colloids and Polymer Sciences*, 255, 609-616.
46. Sereti V., Stamatis H. and F.N. Kolisis (1997) Catalytic behaviour of cutinase in supercritical CO<sub>2</sub>. *Biotech. Techniques.* 127-136.
47. C. Tsitsimpikou, H. Stamatis, V. Sereti, H. Daflos and F.N. Kolisis (1997) Acylation of Glucose Catalysed by Lipases in Supercritical Carbon Dioxide. *J. Chem Tech. Biotech.* ,234-241.
48. C. Tsitsimpikou, H. Stamatis, V. Sereti, H. Daflos and F.N. Kolisis (1998) Acylation of Glucose Catalysed by Lipases in Supercritical Carbon Dioxide. *J. Chem Tech. Biotech.* 71, 309-314
49. M. Makropoulou , C. Tsitsimpikou, Christakopoulos P., D. Kekos, F.N. Kolisis, Macris B.J. (1998) Factors affecting the specificity of beta-glucosidase from *Fusarium oxysporum* in the enzymatic modification of alkyl- $\beta$ -glucosides. *Internatiomnal Journal of Biological Macromolecules*, 22, 97-101
50. H. Stamatis, P. Christakopoulos, D. Kekos, B. Macris and F.N. Kolisis (1998) Studies on the synthesis of short-chain geranyl esters catalysed by *Fusarium oxysporum* esterase in organic solvents.*J. Molecul. Catal. B: Enzymatic.* 4, 229-236
51. Christakopoulos P., B. Tzalas, D. Mamma, H. Stamatis D., G.N. Liadakis, C. Tzia, D. Kekos, F.N. Kolisis, B.J. Macris (1998) Production of an esterase from *Fusarium oxysporum* catalysing transesterification reactions in organic solvents. *Process Biochemistry*, 33 (7), 729-733.
52. H. Stamatis, V. Sereti and F.N. Kolisis. Studies on the enzymatic synthesis of sugar esters in organic medium and supercritical carbon dioxide. *Chemical and Biochemical Engineering Quarterly*, 12, 151-156, 1998.
53. V. Sereti, H. Stamatis, E. Koukios and F.N. Kolisis. Enzymatic acylation of cellulose acetate in organic media. *Journal of Biotechnology*, 66, 219-223, 1998.
54. V. Sereti, H. Stamatis, F.N. Kolisis. Studies on the regioselective acylation of sugars catalyzed by lipase in *tert*-butanol. In: *Progress in Biotechnology*. Stability and Stabilization of Biocatalysts (ed. A. Ballesteros et al.), Elsevier, Vol. 15, pp.725-730, 1998.
55. H. Stamatis, A. Xenakis, F.N. Kolisis, Bioorganic reactions in microemulsions: The case of lipase. *Biotechnology Advances*, 17(3), 293-318, 1999.
56. H. Stamatis, V. Sereti and F.N. Kolisis. Studies on the enzymatic synthesis of lipophilic derivatives of natural antioxidants, *Journal of the American Oil Chemist's Society.*, 76(12), 1505-1510, 1999.
57. D.G. Hatzinikolaou, E. Kourentzi, H. Stamatis, P. Christakopoulos, F.N. Kolisis, D. Kekos and B.J. Makris. A novel lipolytic activity by *Rhodotorula glutinis* cells. Production, partial characterization and application in the synthesis of esters. *Journal of Bioscience and Bioengineering*, 88, 36-39, 1999.
58. Kolisis F.N. (1999). Reverse micelles, enzymes. (Review article) *Encyclopedia of Bioprocess Technology: Fermentation, Biocatalysis and Separation*, John Wiley & Sons, Inc. USA. 2269-2278

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