

## **Prof. HALUK HAMAMCI**

### **Personal Information**

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### **International Researcher IDs**

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### **Education Information**

Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey  
1977 - 1999

Doctorate, University of California, Davis, Chemical Engineering, United States Of America 1980 - 1986

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey  
1971 - 1976

### **Foreign Languages**

Italian, C1 Advanced

English, C1 Advanced

### **Dissertations**

Doctorate, Tapered column fermentation, University Of California, Davis, Chemical Engineering, 1986

Postgraduate, The suitability of hamsi for the production of semi-preserves, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1979

### **Academic Titles / Tasks**

Professor, Middle East Technical University, Faculty of Engineering, Department of Food Engineering, 1998 - Continues

### **Advising Theses**

HAMAMCI H., Preventing sluggish or stuck fermentations which may be caused by sugar uptake deficiency in *saccharomyces cerevisiae* wine yeast strains by using glucose isomerase, Postgraduate, N.Seray(Student), 2019

HAMAMCI H., Production of thermophilic  $\alpha$ -amylase from *Aspergillus* sp. and its utilization for various applications, Postgraduate, M.GAZALOĞLU(Student), 2017

HAMAMCI H., Ca-D(-)-lactate production from orange bagasse via enzymatic hydrolysis and fermentation, Postgraduate, S.FATMA(Student), 2017

HAMAMCI H., Production of thermophilic  $\alpha$ -amylase from *aspergillus* sp. and its utilization for various applications, Postgraduate, M.Gazaloğlu(Student), 2017

HAMAMCI H., Effect of Cytosolic Redox Balance on Aerobic Glycerol Production in *Saccharomyces cerevisiae* Exposed to

Different Temperatures and Osmotic Pressures, Doctorate, A.BATUR(Student), 2017

HAMAMCI H., *Aspergillus* ve *Rhizopus* suşlarından proteaz enzimi üretimi ve özelliklerinin belirlenmesi, Doctorate, W.N.A(Student), 2017

HAMAMCI H., Ca-D(-)-lactate production from orange baggase via enzymatic hydrolysis and fermentation, Postgraduate, S.Fatma(Student), 2016

HAMAMCI H., Purification of microbially produced Ca-L(+)-lactate with a novel technique: drying induced elution of impurities, Postgraduate, D.ÖZÇELİK(Student), 2016

ÖZTOP H. M., HAMAMCI H., Enzymatic hydrolysis of fruit peels and other lignocellulosic biomass as a source of sugar for fermentation, Postgraduate, P.POÇAN(Student), 2015

ŞAHİN S., HAMAMCI H., Development of lactose free dairy dessert, Postgraduate, S.GARAYEV(Student), 2015

HAMAMCI H., Optimization of growth characteristics for the potential probiotics to be used in fish aquaculturing, Postgraduate, N.DESTAN(Student), 2013

HAMAMCI H., YÜCEL A. M., Screening of the putative hexokinase genes from *Rhizopus oryzae*, Doctorate, E.ALAGÖZ(Student), 2013

KARAKAŞ G., HAMAMCI H., Production of lactic acid esters by reactive distillation, Postgraduate, Ö.YALÇIN(Student), 2011

HAMAMCI H., Evaluating microemulsions for purification of beta-galactosidase from *Kluyveromyces lactis*, Doctorate, B.GÖKÇEN(Student), 2010

HAMAMCI H., Cloning and characterization of trehalose-6-phosphate synthase gene from *Rhizopus oryzae*, Doctorate, G.EBRU(Student), 2009

HAMAMCI H., Contributions to the kinetic modeling of glycolytic pathway in yeast, Doctorate, C.ŞAHİN(Student), 2009

HAMAMCI H., Cloning of wheat trehalose-6-phosphate synthase gene and microarray analysis of wheat gene expression profiles under abiotic stress conditions, Doctorate, B.GENÇSOY(Student), 2008

HAMAMCI H., Investigation of sugar metabolism in *Rhizopus oryzae*, Doctorate, A.OĞUZ(Student), 2007

HAMAMCI H., Purification and characterization of hexokinase isoenzymes from *Rhizopus oryzae*, Postgraduate, D.DEDEOĞLU(Student), 2007

KARAKAŞ G., HAMAMCI H., Partial removal of proteins from lactic acid broth and recovery of proteins from brewery wastes by foam fractionation technique, Postgraduate, L.KURT(Student), 2006

HAMAMCI H., Production of thermostable beta-galactosidase from thermophilic fungi for use in low lactose milk production, Postgraduate, M.SOYDAN(Student), 2006

HAMAMCI H., Partial removal of proteins from lactic acid fermentation broth and recovery of proteins from brewery wastes by foam fractionation technique, Postgraduate, L.Kurt(Student), 2006

HAMAMCI H., Growth of agriculturally important *Pseudomonas* spp. and *Azotobacter chroococcum* on beer waste and observation of their survival in peat, Postgraduate, B.ABAT(Student), 2006

HAMAMCI H., Kinetic analysis of glucose-6-phosphate branch point in *Saccharomyces cerevisiae*, Postgraduate, E.ALAGÖZ(Student), 2005

HAMAMCI H., KAYA Z., In vitro induction of growth and development of common juniper (*Juniperus communis* L.) from shoot and bud explants, Postgraduate, Z.AHSEN(Student), 2005

HAMAMCI H., Biochemical and genetic studies on the pyruvate branch point enzymes of *Rhizopus oryzae*, Doctorate, Ş.AÇAR(Student), 2004

HAMAMCI H., Growth and nitrogen fixation dynamics of *Azotobacter chroococcum* in nitrogen-free and OMW containing medium, Postgraduate, G.FİDAN(Student), 2003

HAMAMCI H., Growth and nitrogen fixation dynamic of *Azotobacter chroococcum* in nitrogen-free and omw containing medium, Postgraduate, G.Fidan(Student), 2003

HAMAMCI H., Trehalose metabolism in wheat and identification of trehalose metabolizing enzymes under abiotic stress conditions, Doctorate, T.EL(Student), 2003

HAMAMCI H., Effect of different stress conditions on trehalose accumulation and degradation in *Rhizopus oryzae*, Postgraduate, G.EBRU(Student), 2002

HAMAMCI H., Autolytic and proteolytic yeast biomass degradation., Postgraduate, C.ŞAHİN(Student), 2002

HAMAMCI H., Trehalose and glycogen metabolism of *gcr1* mutants of *Saccharomyces cerevisiae*, Doctorate, T.Şeker(Student), 2002

HAMAMCI H., Biochemical characterization of trehalase from wheat suspension culture, Postgraduate, B.GENÇSOY(Student), 2002

HAMAMCI H., Trehalose and glycogen metabolism of gcr1 mutants of *Saccharomyces cerevisiae*, Doctorate, T.ŞEKER(Student), 2002

HAMAMCI H., Fungus mediated biohydrogenation of carbonyl compounds., Postgraduate, S.DOĞA(Student), 2002

HAMAMCI H., Syntheses of bioactive compounds using biotechnological methods: Fungal culture mediated syntheses of chiral alpha-hydroxy ketone, and diols, Postgraduate, R.NESLİHANOĞLU(Student), 2001

HAMAMCI H., Partial purification and kinetic characterization of l-lactate dehydrogenase from *Rhizopus oryzae*, Postgraduate, A.ARSLAN(Student), 2001

HAMAMCI H., Liquid-phase synthesis of lactic acid esters catalyzed by heteropoly acid supported ion-exchange resins, Postgraduate, M.ENGIN(Student), 2001

HAMAMCI H., ÖKTEM H. A., Optimisation of tissue culture conditions and gene transfer studies in lentil, Doctorate, M.MAHMOUDİAN(Student), 2000

HAMAMCI H., Integrated process development: Organic acid production and ion-exchange purification, Postgraduate, A.BATUR(Student), 2000

ÖKTEM H. A., HAMAMCI H., F-F progeny analysis of herbicide resistant transgenic tobacco plant, Postgraduate, A.Bulak(Student), 1999

HAMAMCI H., Isolation and preliminary characterization of hexokinase from *Rhizopus oryzae*, Postgraduate, Ş.Açar(Student), 1999

HAMAMCI H., Partial purification and characterization of neutral trehalase from baker's yeast *Saccharomyces cerevisiae*, Postgraduate, S.Yarar(Student), 1997

YILMAZ L., HAMAMCI H., Study for the intertase partitioning in polyethylene glycol-potassium phosphate-water aqueous two-phase system, Postgraduate, N.Coşkun(Student), 1997

HAMAMCI H., Partial purification and characterization of neutral trehalase from baker's yeast, Postgraduate, S.YARAR(Student), 1997

HAMAMCI H., The solubilization of phosphate rock using *Rhizopus oryzae*, Postgraduate, B.Erdağı(Student), 1997

HAMAMCI H., The Solubilization of phosphate rock by *Rhizopus oryzae*, Postgraduate, B.ERDAĞI(Student), 1997

HAMAMCI H., BAYINDIRLI A., Effects of growth conditions and stress applications on the cell composition of bakers' yeast, Doctorate, N.Ertugay(Student), 1995

BAYINDIRLI A., HAMAMCI H., Effects of growth conditions and stress application on the cell composition of bakers yeast, Doctorate, N.ERTUGAY(Student), 1995

HAMAMCI H., Growth kinetics of BHK21 C13 cells in different glucose concentrations, Postgraduate, B.NURDAN(Student), 1991

HAMAMCI H., Lactic acid production by immobilized *Rhizopus oryzae*, Postgraduate, G.GÜRSOY(Student), 1991

HAMAMCI H., Drying and storage of immobilized microbial cells, Postgraduate, N.ERTUĞAY(Student), 1989

HAMAMCI H., Drying and storage immobilized microbial cells, Postgraduate, N.Ertuğay(Student), 1989

HAMAMCI H., The Effects of the taper angle on the continuous production of ethanol from glucose in a tapered packed-bed column, Postgraduate, T.ÇOLAK(Student), 1988

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Valorization of Apple Pomace Via Single Cell Oil Production Using Oleaginous Yeast *Rhodospiridium toruloides***  
Tuhanioglu A., Hamamci H., Alpas H., Çekmecelioğlu D.  
Waste and Biomass Valorization, vol.14, no.3, pp.765-779, 2023 (SCI-Expanded)
- II. **Cloning and screening of the putative hexokinase genes from *Rhizopus oryzae* and their heterologous expression in *Saccharomyces cerevisiae***  
Alagoz E., Acar S., Yucel M., HAMAMCI H.  
MOLECULAR BIOLOGY REPORTS, vol.49, no.9, pp.8607-8615, 2022 (SCI-Expanded)
- III. **Cloning and expression of trehalose-6-phosphate synthase 1 from *Rhizopus oryzae***

Uyar E. O., Yucel M., HAMAMCI H.

JOURNAL OF BASIC MICROBIOLOGY, vol.56, no.5, pp.459-468, 2016 (SCI-Expanded)

- IV. **Degradable polymers of D-lactate from renewables**  
OSMANAĞAOĞLU Ö., HAMAMCI H., Harun O.  
NEW BIOTECHNOLOGY, vol.31, 2014 (SCI-Expanded)
- V. **Revealing the hexokinase step of glycolysis in lactic acid producer fungus *Rhizopus oryzae***  
Alagoz E., Acar S., Yucel M., HAMAMCI H.  
NEW BIOTECHNOLOGY, vol.29, 2012 (SCI-Expanded)
- VI. **Growth characteristics determination for in vitro and pilot-scale growth of the potential probiotic, *Enterococcus faecium* to be used in fish aquaculturing**  
HAMAMCI H., Buyukkileci A. O., Aytakin N. D.  
NEW BIOTECHNOLOGY, vol.29, 2012 (SCI-Expanded)
- VII. **Contributions to modelling of glycolytic pathway of *saccharomyces cerevisiae***  
Buyukkileci C., BÜYÜKKİLECI A. O., HAMAMCI H.  
NEW BIOTECHNOLOGY, vol.29, 2012 (SCI-Expanded)
- VIII. **Effect of different stresses on trehalose levels in *Rhizopus oryzae***  
Uyar E. O., HAMAMCI H., TÜRKEL S.  
JOURNAL OF BASIC MICROBIOLOGY, vol.50, no.4, pp.368-372, 2010 (SCI-Expanded)
- IX. **Lactate and ethanol productions by *Rhizopus oryzae* ATCC 9363 and activities of related pyruvate branch point enzymes**  
Buyukkileci A. O., Hamamci H., Yucel M.  
JOURNAL OF BIOSCIENCE AND BIOENGINEERING, vol.102, no.5, pp.464-466, 2006 (SCI-Expanded)
- X. **Biochemical analysis of trehalose and its metabolizing enzymes in wheat under abiotic stress conditions**  
El-Bashiti T., Hamamci H., Oktem H., Yucel M.  
PLANT SCIENCE, vol.169, no.1, pp.47-54, 2005 (SCI-Expanded)
- XI. **Fungi mediated conversion of benzil to benzoin and hydrobenzoin**  
Demir A., Hamamci H., Ayhan P., Duygu A., Igdir A., Capanoglu D.  
TETRAHEDRON-ASYMMETRY, vol.15, no.16, pp.2579-2582, 2004 (SCI-Expanded)
- XII. **Production of lactic acid esters catalyzed by heteropoly acid supported over ion-exchange resins**  
AYTURK E., HAMAMCI H., Karakas G.  
GREEN CHEMISTRY, vol.5, no.4, pp.460-466, 2003 (SCI-Expanded)
- XIII. **Fungal deracemization of benzoin**  
Demir A., Hamamci H., Sesenoglu O., Neslihanoglu R., Asikoglu B., Capanoglu D.  
TETRAHEDRON LETTERS, vol.43, no.36, pp.6447-6449, 2002 (SCI-Expanded)
- XIV. **Simple chemoenzymatic access to enantiopure pharmacologically interesting (R)-2-hydroxypropiofenones**  
Demir A., Hamamci H., Sesenoglu O., Aydogan F., Capanoglu D., Neslihanoglu R.  
TETRAHEDRON-ASYMMETRY, vol.12, no.13, pp.1953-1956, 2001 (SCI-Expanded)
- XV. **Partial purification and characterization of neutral trehalase from commercial baker's yeast, *Saccharomyces cerevisiae***  
Yarar S., Hamamci H., Bakir U.  
JOURNAL OF FOOD BIOCHEMISTRY, vol.24, no.6, pp.443-451, 2000 (SCI-Expanded)
- XVI. **Chemoenzymatic synthesis of (1S,2R)-1-amino-2-indanol, a key intermediate of HIV protease inhibitor, indinavir**  
Demir A., Hamamci H., Doganel F., Ozgul E.  
JOURNAL OF MOLECULAR CATALYSIS B-ENZYMATIC, vol.9, pp.157-161, 2000 (SCI-Expanded)
- XVII. **An efficient synthesis of (1S, 2R)-1-amino-2-indanol, a key intermediate of HIV protease inhibitor, indinavir**  
Demir A., Aksoy-Cam H., Camkerten N., Hamamci H., Doganel F.  
TURKISH JOURNAL OF CHEMISTRY, vol.24, no.2, pp.141-146, 2000 (SCI-Expanded)

- XVIII. **Synthesis and *Rhizopus oryzae* mediated enantioselective hydrolysis of  $\alpha$ -acetoxy aryl alkyl ketones**  
DEMİR A. G., HAMAMCI H., TANYELİ C., Akhmedov I. M., DOĞANEL F.  
Tetrahedron Asymmetry, vol.9, no.10, pp.1673-1677, 1998 (SCI-Expanded)
- XIX. **Storage behaviour of immobilized dried micro-organisms**  
Turker N., Hamamci H.  
FOOD MICROBIOLOGY, vol.15, no.1, pp.3-11, 1998 (SCI-Expanded)
- XX. **Continuous cultivation of bakers' yeast: Change in cell composition at different dilution rates and effect of heat stress on trehalose level**  
Ertugay N., Hamamci H.  
FOLIA MICROBIOLOGICA, vol.42, no.5, pp.463-467, 1997 (SCI-Expanded)
- XXI. **PRODUCTION OF L(+)-LACTIC ACID USING IMMOBILIZED RHIZOPUS-ORYZAE - REACTOR PERFORMANCE-BASED ON KINETIC-MODEL AND SIMULATION**  
HAMAMCI H., RYU D.  
APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, vol.44, no.2, pp.125-133, 1994 (SCI-Expanded)
- XXII. **THE OPTIMUM TAPER ANGLE FOR ETHANOL FERMENTATION IN A PACKED-BED COLUMN REACTOR**  
COLAK T., HAMAMCI H.  
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.52, no.4, pp.445-455, 1991 (SCI-Expanded)
- XXIII. **PRODUCTION OF CITRIC-ACID USING IMMOBILIZED DRIED REACTIVATED ASPERGILLUS-NIGER**  
HAMAMCI H., GURSOY G., HANG Y.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.196, pp.92-91, 1988 (SCI-Expanded)
- XXIV. **EFFECT OF OXYGEN ON ETHANOL FERMENTATION IN PACKED-BED TAPERED-COLUMN REACTOR**  
HAMAMCI H., RYU D.  
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.28, no.6, pp.515-519, 1988 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Succinic acid production from cheese whey via fermentation by using alginate immobilized *Actinobacillus succinogenes***  
Uysal U., HAMAMCI H.  
Bioresource Technology Reports, vol.16, 2021 (Scopus)
- II. **Enzymatic hydrolysis of orange bagasse and effect of filtration on lactic acid fermentation**  
Baltacı S. F., HAMAMCI H.  
SN APPLIED SCIENCES, vol.2, no.4, 2020 (ESCI)

## Books & Book Chapters

- I. **Fluid flow heat and mass transfer in food systems**  
ŞAHİN S., ŞÜMNÜ S. G., HAMAMCI H., İŞÇİ YAKAN A., ŞAKIYAN DEMİRKOL Ö.  
Nobel yayınevi, 2016

## Refereed Congress / Symposium Publications in Proceedings

- I. **Fermantasyon için Şeker Kaynağı Olarak Kullanılmak Üzere Meyve Kabuklarının ve diğer Lignoselülozik Biyokütlelerin Enzimatik Hidrolizi**  
Poçan P., BAĞÇEGÜL E., ÖZTOP H. M., HAMAMCI H.  
18. Ulusal Biyoteknoloji Kongresi, Turkey, 18 - 19 December 2015
- II. **Farklı Lignoselülozik Biyokütlelerin Enzimatik Hidrolizi**  
Poçan P., ÖZTOP H. M., HAMAMCI H.

9. Gıda Mühendisliği Kongresi, Turkey, 12 - 14 November 2015

**III. Cloning and expression studies of putative *Rhizopus oryzae* hexokinase genes in *Saccharomyces cerevisiae***

Alagoz E., Acar S., YÜCEL M., HAMAMCI H.

35th Congress of the Federation-of-European-Biochemical-Societies, Gothenburg, Sweden, 26 June - 01 July 2010, vol.277, pp.118

**IV. Expression of lactate dehydrogenase genes of *Rhizopus oryzae* in *Aspergillus niger***

Acar Y., Trindade L., Yucel M., Hamamci H., De Graaff L.

12th European Congress on Biotechnology (ECB 12), Copenhagen, Denmark, 21 - 24 August 2005, vol.118

## Supported Projects

HAMAMCI H., Project Supported by Higher Education Institutions, YÜKSEK VERİMDE AMİLAZ ÜRETİMİ İÇİN ASPERGİLLUS NİGER FİLAMENTUS FUNGİSİNİN MORFOLOJİSİNİN ARAŞTIRILMASI, 2017 - 2017

HAMAMCI H., Project Supported by Higher Education Institutions, PORTAKAL KABUĞU ATIKLARINDAN D-LAKTİK VE L-LAKTİK ASİT ÜRETİMİ VE ÖNSAFLAŞTIRMASI, 2017 - 2017

HAMAMCI H., Project Supported by Higher Education Institutions, PORTAKAL KABUĞU ATIKLARINDAN D-LAKTİK VE L-LAKTİK ASİT ÜRETİMİ VE ÖNSAFLAŞTIRMASI, 2017 - 2017

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

HAMAMCI H., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

## Metrics

Publication: 41

Citation (WoS): 474

Citation (Scopus): 488

H-Index (WoS): 12

H-Index (Scopus): 11

## Non Academic Experience

Food Eng. METU