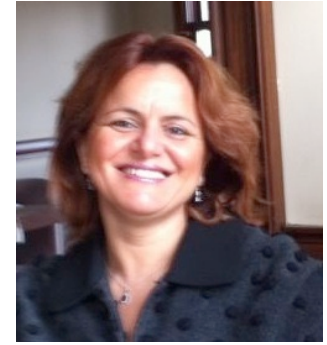


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## RESEARCH INTEREST

Professor Kazan's research range from Chemical Engineering to Bioprocess Engineering. She has carried out collaborative research work to screen, isolate and characterize extremophiles to produce biobased materials (pharmaceuticals, industrial enzymes and biopolymers) with novel properties; to purify, characterize and stabilize proteins for industrial applications; to develop and optimize efficient and sustainable bioprocesses; and to produce biopolymers for biomedical applications. Her research also covers proteomics and metabolomics to understand the response of living cells to extreme conditions. With the knowledge gained from the projects and research activities performed, her most important mission is to achieve research activities through using bioprocess engineering tools within the green chemistry approach to contribute the creation of sustainable environment and society. In order to commercialize her research work, she founded BacPolyZyme Bioengineering LLC. BacPolyZyme provides basic and advanced bioprocess related services for manufacturers that want to produce industrial enzymes, biofuels, organic acids, biopolymers, and pharmaceuticals through fermentation processes.

## ACADEMIC POSITION

Professor	Marmara University, Istanbul, TR Department of Bioengineering 2004 - present
AssociateProfessor	Marmara University, Istanbul, TR Department of Chemical Engineering 2001 - 2004
Seniour Scientist	The Scientific and Technological Research Council of Turkey (TUBITAK), Kocaeli, TR, Genetic Engineering and Biotechnology Institute (GEBI) 1994 -2001
Research and Teaching Assistant	Boğaziçi University, Istanbul, TR Department of Chemical Engineering 1984 - 1994

## **EDUCATION**

PhD	Boğaziçi University, Istanbul, TR Department of Chemical Engineering 1988 – 1993
MSc	Boğaziçi University, Istanbul, TR Department of Chemical Engineering 1984 – 1987
BSc	Istanbul Technical University Istanbul, TR Department of Chemical Engineering 1979 - 1983

## **APPOINTMENT**

Founder, General Manager	BacPolyZyme Biyomühendislik Ltd. Şti 2019
Vice Head of Department	Marmara University, Istanbul, TR Department of Bioengineering 2009 – 2012/2014 – 2019
	Marmara University, Istanbul, TR Department of Chemical Engineering 2002 – 2006
Head of Department	Marmara University, Istanbul, TR Department of Bioengineering 2011 - 2014
Member of BAPKO Committee	Marmara University, Istanbul, TR 2014 – 2018
Vice Dean	Marmara University, Istanbul, TR Faculty of Engineering 2006 – 2009
Member of Faculty Committee	Marmara University, Istanbul, TR Faculty of Engineering 2002 – 2003/2006 – 2009
Member of Institute Committee	The Scientific and Technological Research Council of Turkey (TUBITAK), Kocaeli, TR, Genetic Engineering and Biotechnology Institute (GEBİ) 2000 -2001

## **PATENT**

*Mandacı, S., Seyhan, F., Öngen, G., Erarşlan, A.A., Kazan, D., et al., "Production of xylanase enzyme for feed additives and methods for preparation of powder and coated form of the enzyme", TURKEY, Patent, Submission date: 2014/04579, January 2014, patent date: 22/04/2019*

*Kayaman, N., Kazan, D., Erarşlan, A., Okay, O., Baysal, B., "Application Number: TR96 / 00295, Production of Temperature Sensitive Gel Beads for Concentrating Dilute solutions of Biological Materials" T.C. Turkish patent Institute, Acceptance date: 03/01/1997.*

## **SELECTED PROJECTS**

*Production of enzymatically synthesized biocompatible and biodegradable microbial polymers by sustainable and economical processes, KOSGEB, (**Project manager**), 2019-2021 (BacPolyZyme Bioengineering Ltd. Şti. was founded)*

*Synthesis of biodegradable HA-PHB carrier systems by click reactions and tissue engineering applications, FEN-B-170419-0120, (**Project manager**), 2019-2021*

*Biomedical application of biopolymers from renewable sources, FEN-C-DRP-170118-0011 (Project manager), 2018-2020*

*Production of Bio-similar Pharmaceuticals "TUBITAK-KAMAG-1007 Project" (**Project Manager**; In collaboration with İstanbul Technical University & with Zeynep Atabay/Atabay Pharmaceutical Company) , 2016-2020*

*Purification and characterization of lipase from Cryptococcus species isolated from Petroleum Sludge, FEN-C-YLP-141118-0594 (**Project manager**), 2018-2019*

*Production of biocellulose-PHB blend polymers and their applications in biomedical area, FEN-C-YLP-120417-0175 (**Project manager**), 2017-2018*

*Production of Poly(3-hydroxybutyrate) from Novel Bacillus marmarensis GMBE 72T isolated from mushroom compost: FEN-C-YLP-080715-0341(**Project Manager**), 2015-2016*

### **Projects before 2015**

*Production of fermentable sugars by hydrolyses of hazelnut husk, TUBITAK: 113M053 (**Project Manager**)*

*Determination of lipid profiles of microalgae in order to determine biofuel productivity, - FEN-A-090512-0162. (**Project Manager**)*

*Formulation of alkaline protease for liquid detergent, KOSGEB. (**Consultant**)*

*Using recycled protein waste for Oncorhynchus mykiss feed as an alternative protein source, TUBITAK-TEYDEB. (**Consultant**)*

*Production of industrial enzymes intended for feed industry. TUBITAK: KAMAG-107G246. (**Researcher**) (In collaboration with Prof Dr Burhan Arına, Prof Dr Sadık Dinçer and Prof Dr Hatice Korkmaz Güvenmez/ Çukurova University; Prof Dr Gaye Öngen/Ege University; Assoc Prof Dr Sevnur Mandacı/ TUBITAK-MAM-GMBE)*

*Investigation of the kinetic parameters of Bacillus subtilis SDP1 amylase immobilized on magnetic alginate gels-FEN-D-280214-0047 (Project Manager)*

*Immobilization of lipase on magnetic-nano particles- FEN-C-YLP-060510-0142-(Project Manager)*

*Proteomic Investigation of the adaptation of Halomonas halophila DSMZ4770 at high salt concentration and low temperatures - FEN-D-040609-0179, (Project Manager)*

*Proteomic analysis of the metabolic pathways of halophilic microorganisms and flux analysis – FEN-C-DRP-181208-0286, (Project Manager)*

*Production of amylase enzyme from agricultural waste using Halomonas sp. isolated from Çamaltı Saltern Area FEN-YLS-290506-0115, (Project Manager)*

*Extremophiles as source of natural products useful for biotechnological applications: Studies of osmoregulation strategies by engineering tools. TUBITAK: TBAG-110T174.(Project Manager) (In collaboration with Assoc Prof Annarita Poli and Prof Barbara Nicolaus/ CNR-ITALY)*

*Proteomic Analyses of Kidney Transplantation Solutions . TUBITAK: SBAG-110S103. (Project Manager at Marmara University) (In collaboration with Prof Dr Abdurrahman Coşkun/ Acibadem University)*

*Establishment of Bioremediation Laboratory in the Bioengineering Department. Marmara University Research Fund Project, FEN-E.-. (Project Manager)*

*Production and characterization of phytase enzyme for animal feed. Marmara University Scientific Research Project: FEN-C-DRP-171108-0267. (Project Manager)*

*Establishment of Microbial resource Center Infrastructure for Enzyme Industry in Turkey. T.R. Prime Ministry State Planning Organisation (DPT), conducted at TUBTAK MRC, GEPI. (Project Manager)*

*Investigation of the effect of environmental conditions on newly isolated halophilic microorganisms by proteomics. TUBITAK: MAG 104M236. (Project Manager)*

*Production of alpha-amylase from Halomonas sp. isolated from Çamaltı Saltern Area by agricultural waste. Marmara University Scientific Research Project: FEN-YLS-290506-0115. (Project Manager)*

*Identification of archaea isolated from extreme environments in Turkey and extremozymes of these microorganisms. TUBITAK: TBAG 103T069. (Project Manager) (In collaboration with Dr Aziz Akin Denizci/TUBITAK-MRC-GEPI)*

*Stability, conformational characterization and biocatalytic applications of native and modified alkaline proteases purified from alkaliphilic Bacillus strains. conducted at TUBTAK-MRC, GEPI. TUBITAK: TBAG-U/123 (104T262).(Researcher) (in collaboration with Prof Francesco Secundo/CNR-Italy)*

*BIOCHIPBOARD (Fungal enzymes on the production of whitelined chipboard: technological and economic implications. conducted at TUBTAK-MRC, GEPI (In collaboration with Prof Candan Tamerler/ITÜ; Prof Tajelli Keshewards/University of Westminster, KARTONSAN). EUREKA: E2184. (Coordinator)*

*Isolation and identification of industrially important protein producing bacteria from local ecosystems. TUBITAK: GMBAE F990201. (Project Manager) conducted at TUBTAK-MRC, GEPI.*

*Identification of alkaline protease producing microorganisms from local ecosystems and production and purification of alkaline protease enzyme. Marmara University Scientific Research Project: BSE 073/131102. (Project Manager)*

*Traditional and modern solutions for lactose deficiency in Turkey: Production and development of lactase enzyme used in milk industry, YUUP-DPT (T.R. Prime Ministry State Planning Organisation BAP-08-11-DPT 2005K120570. (Project Manager at Marmara University Site) (In collaboration with Prof Şebnem Harsa/ İzmir Institute of Technology)*

*Determination of anti-viral, anti-microbial and anti-oxidant activity of whey proteins and hydrolysates and determination of structural properties. TUBITAK: SBAG. (Project Manager at Marmara University Site)( In collaboration with Prof Süha Yalçın/Marmara University and Prof Nazlı Arda/İstanbul University)*

*Sub-Project 2.2 Penicillin Acylase Production in “Biotechnology-Establishment and Promotion of New Biotechnological Techniques in Turkey (NATO-TU BIOTECHNOLOGY)” NATO-SFS (TUBİTAK-MAM-GMBAE) (Researcher) conducted at TUBTAK-MRC, GEBl.*

### **BSc Projects (TUBITAK-2209)**

*Production of 3D Scaffold by using biopolymer blend (Elif Nur AVCI and Tuğçe KORKMAZ)  
TUBITAK-2209B, 2019*

*Effect of oxygen transfer on biopolymer production (Esma DERİN and Belkıs GÜNEŞ),  
TUBITAK-2209A, 2019*

### **Projects before 2015**

*Investigation of the inactivation kinetics of *Bacillus licheniformis* BA17 alkaline protease at different pH values (Murat ÖZKAN, Chemical Engineering Department)*

*Optimization of Phenol Removal using *Halomonas* sp. AAD12 (Fatma Ece ALTINIŞIK,  
Bioengineering Department)*

### **BOOK CHAPTERS**

*Öztür, H.Ü., Uzyol, K.S., Denizci, A.A., Kazan, D., Industrial Application of Microbial Amylases.,  
Microbial Catalysis, Ed: Adcel-Aziz, A-M., Garg, N., Aeron, A., Jha, C.K., Nayak, S.C., Bajpai, V.K.,  
Nova Publishers., SBN: 978-1-53614-679-0, Publication Date: April 2019*

*Kazan, D., Akbulut, B.S., Protein İzolasyonu ve Analizi (Protein Isolation and analysis), Ed: Türkeriü  
L.N., Özer, Aç, Narter, F., pp: 583-597., In Moleküler Üroloji, Pelin Ofset, Ankara. ISBN:978-975-  
01697*

*Kazan, D., ‘Endüstriyel Biyoteknoloji (Industrial Biotechnology)’ in ‘Moleküler Biyoteknoloji ve  
Uygulamaları (Molecular Biotechnology and Applications)’ Ed: Dündar, M., Bağış, H., Ekim 2010  
(ISBN: 9789756478639) Erciyes Üniversitesi Yayınları*

*Kazan, D. “Enzim Mühendisliği’nde Temel Konular ve Uygulamalar (Basic Techniques and Applications  
in Enzyme Engineering)” Lisans Üstü Yaz Okulu Kurs Kitabı ”*

Kazan, D. "Enzimlerin Saflaştırılması ve Nitelendirilmesinde Temel Yöntemler (Basic Techniques for Enzyme Purification and Characterization) " Lisans Üstü Uygulamalı Kursu, Kurs Kitabı

Kazan, D. " İmmobilize Enzimler ve Uygulamaları (Imobilized Enzymes and Applications) " Lisans Üstü Eğitim Kursu Kurs Kitabı "

## **PUBLICATIONS**

Özgören, T., Pinar, O., Bozdağ, G., Denizci, A.A., Gündüz, O., Çakır Hatır, P., Kazan, D., (2018) Assessment of poly(3-hydroxybutyrate) synthesis from a novel obligate alkaliphilic *Bacillus marmarensis* and generation of its composite scaffold via electrospinningç, *Int. J. Biol. Macromol.* 2018, doi:10.1016/j.jbiomac.2018.08.014.

Sayar, N.A., Kazan, D.,Pinar, O., Sarıyar Akbulut, B., Sayar, A.A., (2018) Retro-techno-economic evaluation of acetic acid production using cotton stalk as feedstock *Journal of Material Cycles and Waste Management* (2018) 20:2077–2088, <https://doi.org/10.1007/s10163-018-0762-1>

Altinisik Kaya, F.E., Avcı, F.G., Sayar, N.A., Kazan, D., Sayar, A.A., Sarıyar Akbulut, B., (2018) What Are the Multi-Omics Mechanisms for Adaptation by Microorganisms to High Alkalinity? A Transcriptomic and Proteomic Study of a *Bacillus* Strain with Industrial Potential., *OMICS A Journal of Integrative Biology*, 22, Number 11, DOI: 10.1089/omi.2018.0127

Coskun,A., Baykal, T.A., Oztug, M., Kazan, D., Kaya, E., et al. (2018) Proteomic Analysis of Liver Preservation Solutions Prior to Liver Transplantation., *Current Proteomics.*, DOI : [10.2174/1570164615666180905104543](https://doi.org/10.2174/1570164615666180905104543)

Oktar, F.N., Su, S., Ozbek, B., Yücel, S., Kazan, D., Gündüz, O., (2018) "Production and Characterization of Whey Protein Concentrate (WPC) Based Nano-Fibers", *Materials Science Forum*, Vol. 923, pp. 47-50, 2018

Sayar, N.A., Pinar, O., Kazan, D. Sayar, A.A. (2017) Bioethanol Production From Turkish Hazelnut Husk Process Design and Economic Evaluation., *Waste Biomass Valorization.* <https://doi.org/10.1007/s12649-017-0103-y>

Pinar, O., Karaosmanoğlu, K., Sayar, N.A. Kula. C., Kazan, D., Sayar, A.A. (2017). Assessment of hazelnut husk as a lignocellulosic feedstock for the production of fermentable sugars and lignocellulolytic enzymes., *3 Biotech*, 7: 367. <https://doi.org/10.1007/s13205-017-1002-4>

Sahin, Y.M., Su, S., Ozbek, B., Yücel, S., Pinar, O., Kazan,D., Oktar, F.N., Ekren, N., Gunduz, O. (2017) Production and characterization of electrospun fish sarcoplasmic protein based nanofibers. *Journal of food engineering.* <https://doi.org/10.1016/j.jfoodeng.2017.11.013>

Dilara Ayyildiz, Kazim Yalcin Arga, Fatma Gizem Avcı, Fatma Ece Altinisik, Caglayan Gurer, Gizem Gulsoy Toplan, Dilek Kazan, Katharina Wozny, Britta Brügger, Bulent Mertoglu, Berna Sarıyar Akbulut (2017). Transcriptomic analysis displays the effect of (-)-roemerine on the motility and nutrient uptake in *Escherichia coli*. *Curr Genet.* DOI 10.1007/s00294-016-0673-4

Nilay Budeyri Gokgoz, Fatma Gizem Avcı, Kubra Karaosmanoglu Yoneten, Begum Alaybeyoglu, Elif Ozkirimli, Nihat Alpagu Sayar, Dilek Kazan, and Berna Sarıyar Akbulut (2016). Response of

*Escherichia coli* to Prolonged Berberine Exposure. *Microbial Drug Resistance*. DOI: 10.1089/mdr.2016.0063

Coskun, A., Baykal, A.T., Kazan, D., et al. Proteomic Analysis of Kidney Preservation Solutions Prior to Renal Transplantation (2016). *PLOS ONE*, accepted for publication.

Kori, M, Aydın, B., Unal, S., Arga, K.Y., Kazan, D., (2016) Metabolic Biomarkers and Neurodegeneration: A Pathway Enrichment Analysis of Alzheimer's Disease, Parkinson's Disease, and Amyotrophic Lateral Sclerosis, *OMICS A Journal of Integrative Biology*, 20 (11), DOI: 10.1089/omi.2016.0106

Bal, E., Pinar, O., Kazan, D., Ozturk, H.U., Sayar, A.A., (2016) Immobilization of alpha-amylase from *Bacillus subtilis* SDPI isolated from the Rhizosphere of *Acacia cyanophila* Lindey, *Electronic Journal of Biology*, 12:2, 115-121.

Ceylan,S.,Kazan,D., (2015) Pyrolysis kinetics and thermal characteristics of microalgae *Nannochloropsis oculata* and *Tetraselmis* sp., *Bioresource Technology*. 187, 7 / 2015, 10.1016/j.biortech.2015.03.081

Öztürk, H.U. , Sariyar Akbulut, B. , Ayan, B. , Poli, A. , Denizci, A.A. , Utkan, G. , Nicolaus, B., Kazan, D. (2015) Moderately Halophilic Bacterium *Halomonas* sp. AAD12: A Promising Candidate as a Hydroxyectoine Producer. *J Microb Biochem Technol.*, 7, 262-268, <http://dx.doi.org/10.4172/1948-5948.1000222>

Dilgimen, A.S., Arga, K.Y., Erdmann, V.A., Wittmann-Liebold, B., Denizci, A.A. and Kazan, D. (2014) Comparison of Protein Expression Profiles of Novel *Halomonas smyrnensis* AAD6T and *Halomonas salina* DSMZ 5928T. *Natural Science*, 6, 628-640. <http://dx.doi.org/10.4236/ns.2014.69062>

Sayar, N.A., Durmaz-Sam, S., Kazan, D., Sayar, A.A., (2014) *Schizosaccharomyces pombe* and its Ni(II)-insensitive mutant *GAI* in Ni(II) uptake from aqueous solutions: a biodynamic model, *Appl Microbiol Biotechnol*, DOI 10.1007/s00253-014-5740-5

Duman, Y., Kazan, D., Denizci, A.A., Erarслан, A., (2014) Water Miscible Mono Alcohols' Effect on the Proteolytic Performance of *Bacillus clausii* Serine Alkaline Protease, *Appl Biochem Biotechnol*, 172, 469-486, DOI 10.1007/s12010-013-0525-3

Poli, A., Nicolaus, B., Denizci, A.A., Yavuzturk, B., Kazan, D., (2013) *Halomonas smyrnensis* sp. nov., a moderately halophilic, exopolysaccharide-producing bacterium from Çamaltı Saltern Area, Turkey *Int J Syst Evol Microbiol*, 63, 10-18 ijs.0.037036-0; doi: 10.1099/ijs.0.037036-0

Öztürk, N.C., Kazan, D., Denizci, A.A., Erarслан, A., (2012) The influence of copper on alkaline protease stability toward autolysis and thermal inactivation, *Eng. Life Sci.*, 12, No. 5, 1–10 1

Ceylan, S., Yılan, G., Sariyar-Akbulut, B., Kazan, D., (2012) Interplay of adaptive capabilities of

*Halomonas* sp. AAD12 under salt stress. *J. Bioscience and Bioeng.* doi: 10.1016/j.jbiosc.2012.02.030.

Uzyol K.S., Saryyar-Akbulut, B., Denizci, A.A., Kazan, D., (2012) Thermostable alpha amylase from moderately halophilic *Halomonas* sp. AAD21. *Turk. J. Biol.*, doi:10.3906/biy-1106-7.

Ceylan, S., Saryyar-Akbulut, B., Denizci, A.A., Kazan, D., (2011) Proteomic insight into phenolic adaptation of a moderately halophilic *Halomonas* sp. Strain AAD12. *Can. J. Microbiol.*, 57: 295-302

Ozbalci, C., Unsal, C., Kazan, D., Saryyar-Akbulut, B., (2010) Proteomic Responses of *Escherichia coli* to the alkaloid extract of *Papaver polychaetum*. *Ann Microbiol*, 60: 709-717

Denizci A.A., Kazan D., Erarслан .A., (2009) *Bacillus marmarensis* sp. nov., an alkaliphilic, protease-producing bacterium isolated from mushroom compost., *IJSEM.*, doi:ijs.0.012369-0

Oturk, D., Kazan, D., Denizci, A.A., Grimoldi, D., Secundo, F., Erarслан, A., (2009) Water Miscible Mono Alcohols Effect on the Structural Conformation of *Bacillus clausii* GMBAE 42 Serine Alkaline Protease, *Journal of Molecular Catalysis B: Enzymatic* doi:10.1016/j.molcatb.2009.02.017

Öztürk, S., Morgan-Özeren, M., Salman-Dilgimen, A., Denizci, A.A., S Arıkan, B., Kazan, D., (2009) Alkaline serine protease from halotolerant *Bacillus licheniformis* BA17, *Annals Microbiology*, 59 (1) 1-8

Kazan D., Bal H., Denizci A.A., Ozturk N.C., Ozturk U., Dilgimen A.S., Ozturk D.C., Erarслан .A., STUDIES ON ALKALINE SERINE PROTEASE PRODUCED BY *Bacillus clausii* GMBE 22, *Preparative Biochemistry and Biotechnology*, Accepted for publication, ISSN: 1082-6068 print/1532-2297 online, DOI: 10.1080/10826060902953269

Saryyar, B., Dilgimen Salman, A., Ceylan, S., Perk, S., Denizci, A., Kazan, D., RAPID METABOLOME ANALYSIS: Preliminary phenotypic characterization of newly isolated microorganisms by footprinting, *Archives Microbiology*, 2008, 189, 19-26

Yagız, F., Kazan, D., Akin, N.A., Biodiesel production from waste oils by using lipase immobilized on hydrotalcite and zeolites, *Chemical Engineering Journal* Volume 134, Issues 1-3, 1 November 2007, Pages 262-267

Ates, O., Toksoy Oner, E., Arıkan, B., Denizci, A.A., Kazan, D., (2007) Isolation And Identification Of Alkaline Protease Producer Halotolerant *Bacillus licheniformis* Strain BA17, *Annals Microbiology*, 57 (3), 369-375

Kazan, D., Denizci, A., Kerimak, Ö.M.N., Erarслан, A., "Purification and characterization of a serine alkaline protease from *Bacillus clausii* GMBAE42" *J. Ind. Microbiol Biotechnology*, 32, 335-344 (2005)

Denizci, A., Kazan, D., Abeln, E. C. A., Erarслан, A., Newly isolated *Bacillus clausii* GMBAE42: an alkaline protease producer capable to grow under highly alkaline conditions", *Applied Microbiology and Biotechnology*, *Journal of Applied Microbiology*, 96, 320-327 (2004)



*Cokuner Öztürk, D., Kazan, D., Erarslan, A., Stabilization and functional properties of Escherichia coli penicillin G acylase by covalent conjugation of anionic polysaccharide carboxymethylcellulose, World Journal of Microbiology and Biotechnology, 18, 881-888(2002)*

*Ercelen, S., Kazan, D., Erarslan, A., Demchenko, A.P., On the excited-state energy transfer between tryptophan residues in proteins: the case of penicillin acylase, Biophysical Chemistry, 90, 203-217 (2001)*

*Kazan, D., Erarslan, A., The identification of catalytically essential amino acid residues of penicillin G acylase obtained from a mutant of Escherichia coli ATCC 11105, Process Biochemistry, 36, 861-867, (2001)*

*Kazan, D., Erarslan, A., Effect of dextrans polymers on the stability of soluble Escherichia coli penicillin G acylase., J. Chem. Tech. Biotech., 74, 1157-1164, (1999)*

*Kayaman, N., Kazan, D., Erarslan, A., Okay, O., Structure and protein separation efficiency of poly(N-isopropylacrylamide) gels: Effect of synthesis conditions., J. Appl. Polymer Sci., 67, 805-814, (1998).*

*Kazan, D., Ertan, H., Erarslan, A., Stabilization of Escherichia coli penicillin G acylase against thermal inactivation by cross-linking with dextran-dialdehyde polymers., Appl. Microbiol. Biotechnol., 48, 191-197, (1997).*

*Ertan, H., Kazan, D., Erarslan, A., Cross-linked stabilization of Escherichia coli penicillin G acylase against pH by dextran-dialdehyde polymers., Biotechnology Techniques, 11, 225-229, (1997).*

*Kazan, D., Erarslan, A., Stabilization of Escherichia coli penicillin G acylase by polyethylene glycols against thermal inactivation., Appl. Biochem. Biotechnol., 62, 1-13, (1997).*

*Kazan, D., Erarslan, A., Influence of polyhydric compounds on the pH stability of penicillin G acylase obtained from a mutant of Escherichia coli ATCC 11105., Process Biochemistry, 31, 691-697, (1996).*

*Kazan, D., Ertan, H., Erarslan, A., Stabilisation of penicillin G acylase against pH by chemical cross-linking., Process Biochemistry, 31, 135-140, (1996).*

*Kazan, D., Çamurdan, A., and Hortaçsu, A., The Effect of Glucose Concentration on the Growth Rate and some Intracellular Components of a Recombinant Escherichia coli Culture., Process Biochemistry, 30, 269-273, (1995)*

### **OTHER PUBLICATIONS**

*Coskuner Ozturk, D., Erarslan' A., Kazan, D. "Escherichia coli penislin asilazının CMC konjugasyonu ile pH stabilizasyonu" İTÜ Dergisi, Fen Bilimleri, 1, 3-10, 2002*

Kazan, D., Ceylan, S., Unal, S., Sayar, A.A., "Tarımsal Atıklardan Biyoetanol Üretimi" *Biyoyakıt Dünyası*, Sayı:1, 73-74, 2006

## **PRESENTATIONS AT INTERNATIONAL CONFERENCES**

Koca-Işıkcı, E., Bozdağ, G., Caylı, G., Kazan, D., Çakır-Hatır, P., *Synthesis and characterization of castor oil and bacterial cellulose based thermoresponsive hydrogels*, 2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28-29 June 2019, Ankara, TURKEY

Büyük, E., Tansel-Yalçın, H., Pinar, O., Kazan, D., *Purification and Characterization of Lipase Produced by Cryptococcus Strain Isolated From Petroleum Sludge: Assessment of its Application in Industry Area.*, 2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28-29 June 2019, Ankara, TURKEY

Uzyol, K.S., Ceylan, S., Kazan, D., *Catalytic Deoxygenation Of Waste Cooking Oil To Produce Fuel-like Hydrocarbons*, 2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28-29 June 2019, Ankara, TURKEY

Güneş, B., Derin, E., Avcı, E.N., Karadağ, E., Korkmaz, G., Yemişer, I., Kazan, D., *Effect of Oxygen Transfer on Bacterial Polymer Production and Preparation of Bacterial Polymer Blend Having Adhesive Properties*, 2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), 28-29 June 2019, Ankara, TURKEY

Uras, A., Pinar, O., Büyük, E., Buldağ, Ö., Topal, H., Yıldız D.B., Yalçın, H.T., Kazan, D., "Lipase production from *Cryptococcus albidus* D24 using disposed automotive oil", 18th European Congress On Biotechnology, 1-4 July, 2018, Geneva, Switzerland

Bozdağ, G., Özgören, T., Pinar, O., Gündüz, O., Kazan, D., "Development of a promising electrospun bacterial cellulose-PHB scaffold for tissue engineering", 18th European Congress On Biotechnology, 1-4 July, 2018, Geneva, Switzerland

Bozdağ, G., Özgören, T., Kazan, D., "Investigation of the Relevant Medium Components for Bacterial Cellulose Production from *Komagataeibacter hansenii* DSM 5602 and PHB production from *Bacillus marmarensis* GMBE 72T", International Eurasian Conference On Biological And Chemical Sciences (EurasianBioChem 2018) Ankara, 26-27 April 2018

Altınışık, F.E., Kazan D., B. Sariyar Akbulut. *Adaptation of B. marmarensis Sp Nov To Extreme Alkaline Conditions.* 7th Congress of European Microbiologists (FEMS), 9-13 July 2017, Valencia, Spain

A.Uras, O.Pinar, A.Sayar, D.Kazan, A.A.Sayar. *Growth Medium Optimization of Cryptococcus albidus D24 lipase by statistical design of experiments.* 42nd FEBS CONGRESS: FROM MOLECULES TO CELLS AND BACK, 10-14 September 2017 Jerusalem, Israel

Su, S., Ozbek, B., Sahin, Y.M., Yucel, S., Kazan, D., Oktar, F.N., Ekren, N., Gunduz, O., *Process Optimization of Electrospun Fish Sarcoplasmic Protein Based Nanofibers.*, Barcelona, Spain., 17-18 August 2017

Yılmaz-Serçinoğlu, Z., Sayar, N.A., Kazan, D. *Production of laccase and cellulases by pycnoporus sanguineus (dmsz 3024) using hazelnut husk .FEMS 2017 - 7th Congress of European Microbiologists (FEMS), 9-13 Temmuz 2017, Valencia, Spain*

Abdussamed, U., Sayar, N.A., Kazan, D., Sayar' A.A. (2016). Immobilization of *Cryptococcus albidus* D24 Lipase for enzymatic esterification. *FEBS*, 283

Tugba' Ö., Gülnihal, B., Şirin' B., Çimenoglu' Ç., (2016). Utilization of PHB from *Bacillus marmarensis* GMBE 72T DSMZ21297 as scaffold. *FEBS*, 283

Kaplan Coban, E., Gencoğlu, C., Kirman, D.C., Pinar, O., Denizci, A.A., Kazan, D., Sayar, A.A. (2015). Assessment of the effects of medium composition on growth lipid accumulation and lipid profile of *Chlorella vulgaris* as a biodiesel feedstock. 4th International Conference on Renewable Energy Research and Applications

Altinisik, FE, Avci, FG, Denizci AA, Kazan, D, Sariyar Akbulut B. Investigation of the proteom profile of alkaliphilic *B. marmarensis* sp nov under different pH conditions. *FEBS-IUBMB WORKSHOP Biointeractomics Sevilla-Spain, May 17-20, 2016.*

Ayyıldız, D., Avci, F.G., Arga, K.Y., Budeyri Gokgoz, N., Sayar, N.A., Kazan, D., Wozny, K., Brügger, B., Sariyar Akbulut, B. The plant derived alkaloid roemerine is involved in the modulation of motility in *Escherichia coli*. The 60th Annual Meeting of the Biophysical Society. 27 February- 2 March 2016 Los Angeles, CA-USA.

Yılmaz Z., Pinar O., Sayar N. A., Kazan D. (2015). Optimization of process parameters for enzymatic hydrolysis of hazelnut husk. *BEC 2015 VII. Bioengineering Congress, 19-21 November 2015, İzmir-Turkey.*

Ozgoren, T., Pinar, O., H.U., Kazan, D., (2015) Response of the *Bacillus marmarensis* GMBE 72<sup>T</sup> to extrem conditions: Poly(3hydroxybutyrate), *FEBS Journal* 282 (Suppl.1) (2015) 55; Special Issue: 40th FEBS Congress, The Biochemical Basis of Life, Berlin, Germany, July 4-9, 2015

Ozgoren, T., Pinar, O., Denizci, A.A., Utkan, G., Kazan, D., Effect of Different Carbon Sources on the Production of Poly(3-hydroxybutyrate) , PHB from *Bacillus marmarensis* GMBE 72<sup>T</sup>, *BEC 2015 VII. Bioengineering Congress, 19-21 November 2015, İzmir-Turkey*

Bal, E., Ozturk, H.U., Kazan, D., (2014) Investigation of the kinetic parameters of extracellular alpha-amylase from *Bacillus subtilis* SDP1 immobilised on alginate beads, *ProtStab2014, 10<sup>th</sup> International Conference on Protein Stabilization, 7-9 May 2014, Stresa, Italy*

Budeyri Gokgoz, N., Wozny, K., Kazan, D., Brügger, B., Sariyar Akbulut, B. Getting an insight into the antibacterial activity of the plant derived alkaloid (-)-roemerine against *E. coli* cells. 39th FEBS-EMB Conference. 30 August-4 Septemeber, 2014 Paris, France.

Karaosmanoğlu K, PİNAR O, SAYAR N.A, Kazan D, (2013) Hydrolysis of Hazelnut Husk by Using Commercial Enzymes for the Production of Fermentable Sugar, 6th International Bioengineering Congress (BEC2013), 12 – 15 November, 2013, Aydın-Turkey.

Ozturk H. U, Denizci A.A., Utkan G., Kazan, D., (2013) Application of magnetic alginate beads in both in bioseperation and immobilization of *Bacillus subtilis* SDP1  $\alpha$ -amylase, *Nano TR9, 24-28 Haziran 2013, Erzurum*

Başak Koçhan, Berna Sariyar Akbulut, Prof. Dr. Dilek Kazan. Investigation of Osmoadaptation Strategy of a New Moderately Halophilic *Halomonas smyrnensis* AAD6T Industrial Biotechnology: meeting the challenges. 12-13 September 2013, Medicon Village, Lund, Sweden.

Budeyri Gokgoz, N, Kazan, D., Sariyar Akbulut, B. Deciphering the antimicrobial alkaloid action on *E.coli* TB1. ICSB2013, The 14th International Conference on Systems Biology. 30 AUGUST - 3 September 2013, Copenhagen.

Coskun, D. Kazan, M. Akgöz, A. T. Baykal, I. Berber, G. Bilsel, M. O. Senal, K. Karaosmanoglu, I. Aksoy and C. Yazici, Proteomic evaluation of preservation solutions prior to kidney transplantation, *FEBS JOURNAL*, Volume 279, pp: 235, Issue Supplement s1, Special Issue: 22nd IUBMB & 37th FEBS Congress, Seville, Spain, September 4-9, 2012

Ayan, B. Sariyar Akbulut and D. Kazan, Growth and osmolyte distribution of a moderately halophilic microorganism in the presence of phenol, *FEBS JOURNAL*, Volume 279, pp: 268, Issue Supplement s1, Special Issue: 22nd IUBMB & 37th FEBS Congress, Seville, Spain, September 4-9, 2012

N. Budeyri, D. Kazan and B. S. Akbulut, Investigation of the antimicrobial effect of an alkaloid from *Papaver rhoeas* K, *FEBS JOURNAL*, Volume 279, pp: 252, Issue Supplement s1, Special Issue: 22nd IUBMB & 37th FEBS Congress, Seville, Spain, September 4-9, 2012

Burak Ayan, Berna Sariyar Akbulut, Annarita Poli, Umit Ozturk, Nurcin Celik Ozturk, A. Akin Denizci, Guldem Utkan, Dilek Kazan Osmoadaptation of a moderately halophilic microorganisms under cold stress, *New Biotechnology*, Volume 29, Supplement, Pages S55 (23–26 September 2012)

Yonca Avcı Duman, Hatice Korkmaz, Burhan Arikan, Sadık Dinçer, A. Akin Denizci, Berna Sariyar Akbulut, Dilek Kazan, Altan Erarslan Purification and characterization of a thermo and acid-stable endo-1,3-1,4- $\beta$ -glucanase from *Bacillus amyliquefaciens* YMN47, *New Biotechnology*, Volume 29, Supplement, Pages S-80-81 (23–26 September 2012)

Melis S. Sogut, Nurcin C. Ozturk, H. Umit Ozturk, Orkun Pinar, Fatih M. Ipek, Ebru Cayir, Abdulmecit Gokce, Deniz Karasu, Dilek C. Ozturk, Yavuz Ozturk, A. Akin Denizci, Bengu Ozturk, Banu Bahar, Naze G. Avcı, Burak Ayan, Dilek Kazan, Yonca A. Duman, Sayit Sargin, Sevket Karacanli, Cengizhan Mizrak, et al. Production of industrial enzymes for feed industry *New Biotechnology*, Volume 29, Supplement, Pages S108 (23–26 September 2012)

H. Umit Ozturk, Nurcin Celik Ozturk, Annarita Poli, Barbara Nicolaus, Burak Ayan, A. Akin Denizci, Guldem Utkan, Berna Sariyar Akbulut, Dilek Kazan, (2012) Adaptive changes in the lipid distribution of a moderately halophilic microorganism under salt stress, *New Biotechnology*, Volume 29, Supplement, Pages S147 (23–26 September 2012)

Coskun, A., Kazan, D., Akgöz, M., Berber, İ., Yazıcı, C., Bilsel, G., Karaosmanoglu, K., Sahin, J., Proteomics Profiling of Preservation Solution Prior to Renal Transplantation '5th Central and Eastern European Proteomic Conference, Prag, 19-21 September 2011 (Best poster award),

Ceylan, S., Ozbalcı, C., Akbulut, B.S., Kazan, D., Proteomics in Industrial Biotechnology *Current Opinion in Biotechnology*, Vol. 22, 28, European Biotechnology Congress, 2011 Istanbul

Öztürk, H.Ü., Utkan, G., Denizci, A.A., Kazan, D., Fast Biosynthesis of Silver and gold nanoparticles by microwave radiation, (P1.D.56), *Nanoscience and Nanotechnology Conference* June 27 - July 1, 2011 Sabancı University, İstanbul - Turkey

Karaosmanoglu K., Kazan D., Akbulut B.S., Proteomic Analysis of the Effect of Berberine on *Escherichia coli*. *Mass Spectrometry in Biotechnology and Medicine*. Dubrovnik, Croatia, from 3-9 July 2011.

Ceylan S, Yulan G., Akbulut B.S., Kazan, D., *Analysis of the osmolyte strategy of the moderately halophilic Halomonas sp. AAD12. The 12th International Conference on Systems Biology (ICSB), 28 August-1 September 2011, Heidelberg/Mannheim, Germany.*

Çağakan Özbalcı, Kübra Karaosmanoğlu, Işıl Aksan Kurnaz, Dilek Kazan, Berna Sarıyar Akbulut. *Comparative Transcriptome and Proteome Analysis for the Effect of Berberine. 35th FEBS Congress - Molecules of life. June 26 – July. 1, 2010 Gothenburg, Sweden.*

Mangaoğlu H, Avcı N.G., Akbulut B.S., Kazan, D.. *Optimization of cellulase production by newly isolated Bacillus sp. ”35th FEBS Congress - Molecules of life. June 26 – July. 1, 2010 Gothenburg, Sweden*

H. Umit Ozturk, Serkan Uzyol, A. Akin Denizci, Sadık Dincer, Ayse Ogan, Altan Erarslan, Dilek Kazan, “*Amylase and Cellulase Producer Bacillus Strain Isolated From Rhizosphere of Acacia Cyanophylla Lindley*”, *V<sup>th</sup> International Bioengineering Congress, 16-19 Haziran 2010, İzmir-Türkiye*

Ceylan, S., Akbulut, B.S., Kazan, D. *Proteome analysis of moderately halophilic bacteria response to oxygen limitation (poster no: B1.24), 35. FEBS Congress, Molecules of Life, 26 Haziran-1 Temmuz 2010, Göteborg, Sweeden*

Özbalcı, Ç., Ünsan, Ç., Kazan, D., Akbulut, B.S., *Proteomic approach to elucidate antimicrobial effect of Papaver polychetum alkaloids, 34th FEBS Congress, Prague, Çek Cumhuriyeti, 4-9 Temmuz 2009*

Ozturk, H.U., Denizci, A.A., Dincer, S., Ogan, A., Erarslan, A., Kazan, D., *Phythase from Bacillus strain isolated from rhizosphere of Acacia cyanophylla Lindley, 34th FEBS Congress, Prague, cek Cumhuriyeti, 4-9 Temmuz 2009*

Ceylan, S., Akbulut, B.S., Kazan, D., *Investigation of the osmoprotection and cold adaptation of Halomonas halophila 4770 by Proteomics, 34th FEBS Congress, Prague, cek Cumhuriyeti, 4-9 Temmuz 2009*

Ceylan, S., Akbulut, B.S., Kazan, D., *Proteom Analyses of the responses to phenol concentration variations in moderately halophilic bacteria Halomonas sp. MU12, International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2009) Lisbon (Portugal) 2-4 Aralık 2009*

Ozturk, H.U., Denizci, A.A., Dincer, S., Ogan, A., Erarslan, A., Kazan, D., *Production and characterization of thermostable phythase from Bacillus strain isolated from rhizosphere of Acacia cyanophylla Lindley, International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2009) Lisbon (Portugal) 2-4 Aralık 2009*

Özbalcı, Ç., Ünsan, Ç., Kazan, D., Akbulut, B.S., *Berberine vs. P. Polychaetum alkaloid extract for antimicrobial activity, International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2009) Lisbon (Portugal) 2-4 Aralık 2009*

CEYLAN S., DİLGİMEN A.S., AKBULUT B.S, KAZAN D., *Preliminary Identification of Moderately Halophilic Microorganisms by MALDI-ToF Mass Spectrometer, IUMS2008 (International Union of Microbiological Society) International Congress of Bacteriology and Applied Microbiology 5-9 Ağustos 2008; İstanbul*

Özbalcı C., Ünsal C., Kazan D., Sarıyar-Akbulut B., *Proteomic approach to understand antimicrobial effect of Papaver polychaetum alkaloids, International Symposium on Health Informatics and Bioinformatics 2008, İstanbul,*

Öztürk DC, Kazan D, Denizci AA, Grimoldi D, Secundo F, Erarslan A., *Effect of Water Miscible Mono Solvents on conformational Structure and stability of Bacillus clausii GMBAE 42 Serine Alkaline Protease. IEES 08 International Enzyme Engineering Symposium 2008, 01-05 October 2008, Kuşadası / TURKEY.*

Öner M.N.K, Denizci A.A., Kazan D and Erarslan A., *Purification and characterization of a serine alkaline protease from newly isolated Bacillus sp GMBE 72. IEES 08 International Enzyme Engineering Symposium 2008, 01-05 October 2008, Kuşadası / TURKEY.*

Duman YA, Denizci AA, Öztürk DC, Karahan N, Kazan D, Erarslan A. *Effect of Solvatochromic parameters of water miscible aprotic solvents on kinetic and thermodynamic properties of hydrolysis of Bacillus clausii GMBAE 42 Serine Alkaline Proteases with caseine. IEES 08 International Enzyme Engineering Symposium 2008, 01-05 October 2008, Kuşadası / TURKEY.*

Duman YA, Denizci AA, Öztürk DC, Karahan N, Kazan D, Erarslan A. *Effect of Solvatochromic parameters of water miscible mono alcohols on kinetic and thermodynamic properties of hydrolysis of Bacillus clausii GMBAE 42 Serine Alkaline Proteases with caseine. IEES 08 International Enzyme Engineering Symposium 2008, 01-05 October 2008, Kuşadası / TURKEY.*

Öztürk NÇ, Kazan D, Denizci AA, Erarslan A. *Effect of Cu<sup>2+</sup> ions on kinetic and thermodynamic properties of Bacillus clausii GMBAE 42 Serine Alkaline Protease. IEES 08 International Enzyme Engineering Symposium 2008, 01-05 October 2008, Kuşadası / TURKEY.*

Uzyol, S., Sariyar, B., Kazan, D., *OPTIMIZATION of alpha-AMYLASE PRODUCTION FROM Halomonas sp. BY USING RESPONSE SURFACE METHODOLOGY (RSM, 13. European Congress on Biotechnology (ECB13), 16-22 September 2007, Barcelona, Spain*

Dilgimen, A.S., D. Kazan, B W Liebold, A. S. Dilgimen, D. Kazan, B W Liebold, *A Proteomic Determination of the Whole Cell Proteins in Two Different Halomonas Strains, 16<sup>th</sup> meetings of Methods in Protein Structural Analysis, 29 August-2 September 2006, Lille, France*

Dilgimen, A.S., D. Kazan, B W Liebold, *A Study Of Proteomics For Newly Isolated Halophilic Microorganisms., 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

Sariyer Akbulut, B., A. Salman Dilgimen, S. Ceylan., S. Perk, A. A Denizci, D. Kazan., *Preliminary Identification Of Moderately Halophilic Microorganisms Through Metabolic Footprinting ., 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

Yagiz F., Kazan D., Akin A.N., *Biodiesel Production From Waste Oils By Using Lipase Immobilized On Hydrotalcite And Zeolites , XVII International Conference on Chemical Reactors and post-Symposium "Catalytic Processing of Renewable Sources: Fuel, Energy, Chemicals" 15-19 Mayıs 2006, Atina, Yunanistan*

H. Bal, D. Kazan<sup>1,2</sup>, A.A Denizci, A Erarslan., *Partial Purification And Characterisation Of Alkaline Protease From Bacillus Clausii Gmbae 22., 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

M.N. Kerimak Öner , A.A. Denizci, D. Kazan, A. Erarslan., *A Serine Alkaline Protease From A Newly Isolated Obligat Alkaliphilic Bacillus GMBAE 72., 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

*D. Coskuner Ozturk, A.A Denizci, D. Kazan and A Erarслан., The Degradation Of Extracellular Polysaccharides By Using Enterococcus sp. 205b 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

*K. S. Uzyol, B. Sarıyar Akbulut, D. Kazan., Amylase Production From Food Waste by Using Newly Isolated Halomonas Sp., 31<sup>st</sup> FEBS Congress., Molecules in Health and Disease, 24-29 June 2006, İstanbul, Türkiye*

*Özlem Ateş , Dilek Kazan , Ebru Toksoy Öner ,Production Of Alkaline Protease By A Halotolerant Bacillus Pumilus Isolated From Van Lake In Turkey, ECB12 Congress, 21-23 August 2005, Copenhagen, Denmark*

*Ceylan, S., Unal, S., Kazan, D., “Hazelnut Shell From Black Sea Region as an Alternative Feedstock for Bioethanol production”, The First UN Global Compact Academic Conference, 30 Mayıs- 1 Haziran, 2004, İstanbul*

*Cokuner Öztürk, D., Kazan, D., Erarслан, A, Extracellular polysaccharides produced by from chipboard production process” The Sixth Italian Conference on Chemical and Process Engineering” 8-11 Haziran 2003 Pisa-Italy (“Chemical Engineering Transactions” dergisi, 2003 Vol.3,1707-1712 basıldı.)*

*Agırdemir, H., Denizci, A., Kazan, D., Erarслан,A., The investigation of the Phenotypic Properties of Bacterial Cultures Isolated from Local Ecosystems able to Produce Industrially Important Enzymes, Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders 12-15 Ekim 2003, Kuşadası*

*Kazan,D., Denizci, A., Kerimak,M., Erarслан,A., Purification and Characterisation of Alkaline Protease from Newly Isolated Bacillus clausii GMBAE 42, Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders 12-15 Ekim 2003, Kuşadası*

*Cokuner Öztürk, D., Kazan, D., Erarслан, A, Stabilization And Functional Properties Of Escherichia Coli Penicillin G Acylase By Covalent Conjugation Of Anionic Polysaccharide Carboxymethylcellulose, 28<sup>th</sup> FEBS Congress 21-24 October 2002, İstanbul/Turkey*

*Denizci, A.A., Kazan, D., Erarслан, A., 2002. Determination of the catalytic properties of alkaline protease from newly isolated Bacillus sp., 28<sup>th</sup> FEBS Congress 21-24 October 2002, İstanbul / Turkey*

*Cokuner Öztürk, D., Kazan, D., Erarслан, A., Stabilization of Escherichia coli penicillin G acylase against pH by conjugating with carboxymethylcellulase, Biocatalysis 2002, International Conference, 22-27 June 2002, Moscow,Russia.*

*Kazan, D., Erarслан, A., The identification of catalytically essential amino acid residues of penicillin G acylase obtained from a mutant of Escherichia coli ATCC 11105, Biocatalysis 2000, International Conference, 10-15 June 2000, Moscow,Russia.*

*Kazan, D., Erarслан, A., Chemical modification of amino acid residues in the active site of penicillin G acylase obtained from a mutant of Escherichia coli ATCC 11105, The First Congress of Balkan Association of Biosciences, 20-24 April 1999, Turkey.*

*Kerimak, M.N., Kazan, D., Erarслан, A., The investigation of the denaturation kinetics of penicillin G acylase obtained from a mutant of Escherichia coli ATCC 11105 in the presence of water miscible organic solvents., Biocatalysis 98 International Conference, 13-18 June, 1998, Moscow - Russia.*

Kazan, D., Erarşlan, A., *Stabilization of Enzyme Proteins by Conjugating with Water Soluble Activated Natural Polymers.*, First Japanese-Turkish Workshop on Advanced Polymer Systems, 16-19 September 1998, TÜBİTAK, Marmara Research Centre, Gebze-Kocaeli, TURKEY.

Erçelen, Ş., Kazan, D., Demchenko, A., Erarşlan, A., *Structural stability and dynamics of penicillin G acylase studied by Fluorescence Method.*, First Japanese-Turkish Workshop on Advanced Polymer Systems, 16-19 September 1998, TUBITAK-MAM, Gebze-Kocaeli, TURKEY

Erarşlan, A., Kazan, D., Ertan, H., *Stabilization of Escherichia coli penicillin G acylase against temperature and pH by dextran-dialdehyde modification.*, (Poster), 8<sup>th</sup> European Congress of Biotechnology, Budapest, Hungary, 17-21 August, 1997.

Kazan, D., Ertan, H., Erarşlan, A., *Stabilization of Escherichia coli penicillin G acylase against temperature and pH in the presence of dextrans.*, (Poster), 8<sup>th</sup> European Congress of Biotechnology, Budapest, Hungary, 17-21 August, 1997.

Kayaman, N., Kazan, D., Erarşlan, A., Okay, O., Baysal, B., *Concentration of protein solutions by using temperature sensitive poly(N-isopropylacrylamide) gels.* "Mediterranean Network of Polymer Science and Technology International Conference on Environmental Impact of Polymeric Materials, 23rd Aharon Katzir-Katchalsky Conference, May 12-16, 1996, Israel.

## **PRESENTATIONS AT NATIONAL CONFERENCES**

Kazan., D. (2018) 'YERLİ TEKNOLOJİLER İLE KATMA DEĞERİ YÜKSEK BİYOMALZEMELER' ASCON Smart Future Expo 2018: Akıllı Teknolojiler Zirve ve Sergisi, 14-15 Kasım, İstanbul

Kazan., D. (2018) KATMA DEĞERİ YÜKSEK BİYOMALZEMELER BİYOPOLİMER, ENDÜSTRİYEL ENZİMLER, BİYOYAKITLAR., SAHA İstanbul Expo-Proje Pazarı, 14-15 Eylül 2018., İstanbul

Kazan., D. (2018) 'Enzim Rüyamız', Türkiye'de Enzim Üretimi ve Ticarileşme Sorunları Çalıştayı., 17 Ekim 2018, Ege Üniversitesi

Kazan, D., *Mikroorganizma Kaynak Merkezleri ve Ülkemiz için Önemi*, VI. Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi 05-07 Ekim 2017 Çukurova Üniversitesi Adana (Invited Speaker)

Kazan, D. "Mikrobiyal Mühendislikte Proteomik Yaklaşımlar" "2. Ulusal Proteomik Kongresi – TuPA 2017 24 – 25 Kasım 2017, Acıbadem Ün., İstanbul (Invited speaker)

Gülnihal BOZDAĞ, Zeynep Efsun DUMAN, Tilbe GÖKÇE, Dilek KAZAN. *Gıda atıklarının alternatif olarak kullanımı: Komagataeibacter hansenii DSM 5602 ile bakteriyel selüloz üretimi.* VI. Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi 05-07 Ekim 2017 Çukurova Üniversitesi Adana

Özgören, T., Pinar, O., Bozdağ, G., Denizci, A.A., Utkan, G., Kazan, D. (2016). *PHB kaynağı Bacillus marmarensis GMBE 72T DSM 21297*. VI. Ulusal Polimer Bilim ve Teknolojisi Kongresi

Kazan, D., *Halofilik Bakterilerden Elde Edilen Enzimler*, 20. Biyoloji Kongresi, 21-24 Haziran 2010, Denizli, TURKIYE

Duman Y.A., Denizci A.A., Karahan N., Kazan D., Erarşlan A., *Suyla Karışabilen Organik Çözücüler Varlığında Bacillus clausii GMBAE 42'den Saflaştırılan Serin Alkale Proteazın Kazein Hidrolizinin*



*Aktivasyon ve İnhibisyon Kinetiklerinin İncelenmesi, XXII Kimya Kongresi, 6-10 Ekim 2008, Magosa, KKTC*

*Büdeyri N., Akbulut B.S., Kazan, D., Halomonas sp. MU10'dan beta galaktosidaz Üretiminin Yüzet Yanıt Yöntemi ile Optimizasyonu, Sekizinci Ulusal Kimya Mühendisliği Kongresi, 26-29 Ağustos 2008*

*CEYLAN S., DİLGİMEN A.S., AKBULUT B.S, KAZAN D., Ilımlı Halofilik Mikroorganizmaların Maldı Tof Kütle Spektrometresi ile Sınıflandırılması, Sekizinci Ulusal Kimya Mühendisliği Kongresi, 26-29 Ağustos 2008*

*CEYLAN S., AKBULUT B.S, KAZAN D., Ilımlı Halofilik Bakterilerin Tuz Stresi, Adaptasyonundaki Metabolik Yollarının Belirlenmesi, 20. Ulusal Biyokimya Kongresi, 29 Ekim-1 Kasım 2008, Nevşehir*

*Öztürk DC, Kazan D, Denizci AA, Secundo F, Erarşlan A., Akalen Proteazın Konformasyonel Yapısına Suyla Çözünebilen Organik Çözücülerin Etkisi. 20. Ulusal Biyokimya Kongresi 2008, 29 Ekim- 1 Kasım, Kapadokya, Nevşehir, Kongre Özel Sayısı, V 33, P 84-85*

*Öztürk NÇ, Kazan D, Denizci AA, Erarşlan A. 20. Serin Alkalen Proteazın Kinetik Özellikleri Üzerine Bakır İyonlarının Etkisi. Ulusal Biyokimya Kongresi 2008, 29 Ekim- 1 Kasım, Kapadokya, Nevşehir, Kongre Özel Sayısı, V 33, P 85*

*Duman YA, Denizci AA, Öztürk DC, Kazan D, Erarşlan A., B. clausii Alkalen proteazının Kinetik ve Termodinamik Değerlerinin Di elektrik sabiti ile Değişimi. 20. Ulusal Biyokimya Kongresi 2008, 29 Ekim- 1 Kasım, Kapadokya, Nevşehir, Kongre Özel Sayısı, V 33, P 80-81*

*Duman, Y.A., Öztürk,D.C.,Denizci, A.A., Karahan, N., Kazan, D., Erarşlan, A., Suyla Karışabilen Monoalkoller Varlığında Bacillus clausii GMBAE42'den Saflaştırılan Alkalen Proteazla Kazein Hidrolizinin Kinetik ve Termodinamik Özelliklerinin İncelenmesi, XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Gençoğlu, A., ve Kazan, D., Çamaltı Tuzlasından İzole Edilen Ilımlı Halofilik Mikroorganizmaların beta galaktosidaz Üretiminin Araştırılması, XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Öztürk,D.C., Kazan, D., F., Secundu, Erarşlan, A., Alkalofilik Bacillus clausii GMBAE42'den Saflaştırılan Serin Alkalen Proteaz'ın Suyla Karışan Monoalkoller Varlığında Yapısal Değişiminin Spektroskopik Yöntemlerle İncelenmesi, XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Uzyol, K.S., Akbulut, B.S., Kazan, D., Çamaltı Tuzlasından İzole Edilen Halomonas sp. MU21'del a-amilaz Üretiminde Besi Yerinin Yanıt Yüzey Metodolojisi ile Optimizasyonu., XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Öztürk,N.C., Karahan, N., Denizci, A.A., Kazan, D., Erarşlan, A., Bacillus clausii GMBAE42'den Saflaştırılan Serin alkalen Proteazın  $Cu^{+2}$  İyonları ile Termostabilizasyon., XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Ceylan, S., Dilgimen, A.S., Özbalcı, Ç., Akbulut, B.S.,Kazan, D., Çamaltı Tuzlasından İzole Edilen Mikroorganizmaların MALDI-TOF MS ile sınıflandırılması., XV. Ulusal Biyoteknoloji Kongresi, 28-31 Ekim 2007, Antalya*

*Dilgimen, A.S., D. Kazan, B W Liebold, Proteomics Study Of Halophilic Microorganisms, Proteomics Workshop, 21-23 Eylül 2006, Antalya*

Kerimak, M.N., Kazan, D., Erarlan, A., *The investigation of the denaturation kinetics of penicillin G acylase obtained from a mutant of E.coli ATCC11105 in the presence of water miscible organic solvents, Proteomics Workshop, 21-23 Eylül 2006, Antalya*

Erarlan, A., Kazan, D., Öztürk, D., *Stabilization of Enzymes by Bioconjugation Techniques, Proteomics Workshop, 21-23 Eylül 2006, Antalya*

S.Ceylan, D.Kazan, S. Ünal, A. Alp Sayar., *Fındık Kabuğundan Biyoetanol Üretimi., Biyoyakıt (Biyodizel-Biyoetanol) Sempozyumu, 29-30 Haziran 2006, BUTAL-Bursa*

K. S. Uzyol., D.Kazan., *Çamaltı Tuzlasından İzole Edilen İlimli Halofilik Bir Bakteriden Tarımsal Atıklar İle Amilaz Enziminin Üretimi, UKMK7, Anadolu Üniversitesi, Eskişehir, (2006)*

F. Yağiz, D. Kazan, A.N. Akin., *Lipaz Enziminin Hidrotalsit Ve Zeolit Üzerine Tutuklanması Ve Biyodizel Yakıt Üretiminde Kullanımı., Anadolu Üniversitesi, Eskişehir, (2006)*

H. Esen, D. Kazan, A.N. Akin., *Enzim Katalizörlerle Biyodizel Üretimi., Anadolu Üniversitesi, Eskişehir, (2006)*

S Öztürk., M. Sari, M. Özeren, D. Kazan., *Halotolerant Bacillus Licheniformis Ba17'den Üretilen Alkalin Proteaz Enziminin Saflaştırılması Ve Karakterizasyonu., Anadolu Üniversitesi, Eskişehir, (2006)*

Acaroğlu, N., Toksoy Öner, E., Denizci, A.A., Kazan, D., *Ülkemiz Çamaltı Tuzlasından izole edilen halofilik mikroorganizmaların ekstremozimlerinin belirlenmesi, 14. Biyoteknoloji Kongresi, Osmangazi Üniversitesi, 31 Ağustos-2 Eylül (2005), Eskişehir.*

Ateş, Ö., Toksoy Öner, E., Arıkan, B., Denizci, A.A., Kazan, D., *Van Gölünden İzole Edilen Halotolerant Mikroorganizmaların Tanınması Ve Ekstremozimlerinin Belirlenmesi, 14. Biyoteknoloji Kongresi, Osmangazi Üniversitesi, 31 Ağustos-2 Eylül 2005, Eskişehir.*

Yavuztürk B., Toksoy Öner, E., Denizci, A.A., Kazan, D., *Ekstremofillerin Ülkemiz Çamaltı Tuzlasından İzole Edilmesi Ve Tanınması, 14. Biyoteknoloji Kongresi, Osmangazi Üniversitesi, 31 Ağustos-2 Eylül 2005, Eskişehir.*

Ceylan, S., Kazan, D., Unal, S., Sayar, A.Alp., *Karadeniz Bölgesi Çotanağının Etanol Üretimi İçin Kaynak Olarak Kullanılması, Biyoenerji Sempozyumu, Ege Üniversitesi, 20-22 Ekim 2004, İzmir*

Ateş, Ö., Toksoy Öner, E., Arıkan, B., Denizci, A.A., Kazan, D., *Halotolerant Bacillus sp. ,den alkalin proteaz enziminin üretimi, XVI. Ulusal Biyofizik Kongresi, Hacettepe Üniversitesi, 19-21 Eylül 2004, Ankara*

Coşkuner-Öztürk, Denizci, A., Kazan, D., Erarlan, A., *Karton üretim tesisinden izole edilen bakterilerin tanımlanması ve ürettikleri polisakkaritlerin karakterizasyonu, XIII. Biyoteknoloji Kongresi 25-29 Ağustos 2003 Çanakkale*

Denizci, A.A., Kazan, D., Erarlan, *Yerel Ekosistemlerden Alkalofilik Bacillus Soylarının Taranarak seçilmesi ve Tanımlanması., Biyoteknolojide Termofilik ve Halofilik Bakteriler., 27 Şubat-1 Mart 2002, Ebiltem-İzmir*

Coşkuner-Öztürk, D., Kazan, D., Erarlan, A., *Kimyasal Modifikasyonlar ile Penisilin Asilaz Enziminin Stabilizasyonu., 12. Biyoteknoloji Kongresi. 17-21 Eylül 2001 Ayvalık – Balıkesir*

Denizci, A.A., Kazan, D., Erarşlan, A., Komposttan İzole Edilen *Bacillus sp.*den Alkalen Proteaz Enziminin Saflaştırılması., 12. Biyoteknoloji Kongresi. 17-21 Eylül 2001 Ayvalık – Balıkesir

Kazan, D., Erarşlan, A., *Escherichia coli* ATCC 11105 Mutant suştan elde edilen Penisilin G asilazın Aktif Merkezinde Bulunan Katalizden Sorumlu Amino Asitlerin Belirlenmesi, IX. Biyofizik Kongresi, İstanbul, 10-12 Eylül 1998.

Kazan, D., Erarşlan, A., *Escherichia coli* ATCC 11105'ten elde edilen Penisilin G asilaz enziminin polietilen glikol varlığında ısı kararlılığının incelenmesi, (Poster) IX. Ulusal Biyofizik Kongresi, 5-6 Eylül 1997, ODTÜ, Ankara.

Kazan, D., Erarşlan, A., Polihidrik bileşiklerin *Escherichia coli* ATCC 11105'ten elde edilen penisilin G asilaz enziminin pH kararlılığına etkisinin incelenmesi., (Poster) IX. Ulusal Biyofizik Kongresi, 5-6 Eylül 1997, ODTÜ, Ankara.

Kazan, D., Ertan, H., Erarşlan, A., *Escherichia coli* ATCC 11105'in bir mutantından elde edilen penisilin G asilaz'ın kimyasal çapraz bağlamayla pH'ya karşı stabilizasyonu., 9. Kültür Koleksiyonları, Endüstriyel Mikrobiyoloji ve Biyoteknoloji Kongresi., Denizli, 21-23 Eylül, 1995.

Kazan, D., Hortaçsu, A., Çamurdan, A., Glikoz Konsantrasyonunun Rekombinant *E. coli* Kültürlerinin Büyümesine ve Plazmid Miktarına Etkisinin Modellenmesi, Birinci Ulusal Kimya Mühendisliği Kongresi, Ankara, 13-16 Eylül, 1994

Kazan, D., Hortaçsu, A., Çamurdan, A., Rekombinant *E. coli* kültürleri ile enzim üretiminin kinetik özelliklerinin incelenmesi, VIII Kimya ve Kimya Mühendisliği Sempozyumu, 7-11 Eylül 1992, İstanbul

Kazan, D., Hortaçsu, A., İki Kademeli Sürekli Kültür Sisteminde Fermentasyon Ürünlerinin Optimizasyonu., VII Kimya ve Kimya Mühendisliği Sempozyumu, 2-5 Nisan 1991, Kıbrıs

Aksak, N., Kazan, D., Hortaçsu, Ö., Karıştırmalı Kaplarda Newtonsal ve Newtonsal Olmayan Ortamlarda Gaz-Sıvı Kütle Aktarımı., VII Kimya ve Kimya Mühendisliği Sempozyumu, 2-5 Nisan 1991, Kıbrıs

## **SUPERVISIONS**

### **MSc Thesis**

- Fermentation of Enzymatically Saccharified Agricultural Residue for Ethanol Production (Selim Ceylan)
- Isolation and Identification of Extremophiles Isolated from Camalti Saltern Area (Bahar Yavuzturk)
- Purification and Characterization of Alkaline Protease produced by *Bacillus sp.* Isolated from Local Ecosystems (Selcuk Ozturk)
- Production and purification of RTEM-e beta-lactamase and Its Inhibition by peptides (Naze Gul Avcı' Co-advisor)
- Investigation of the effect of Antimicrobial Agents on Microorganisms (Çağakan Özbalcı, Co-advisor)
- Amylolytic Enzyme Production from a Moderately Halophilic Bacteria by Using Agricultural Waste (Kamil Serkan Uzyol)

- Investigation of The Kinetics of *Bacillus subtilis* SDP1 alpha amylase immobilized on Magnetic Alginate Beads (Eda Bal)
- Production of Polyhydroxyalkalonate from Extreme Obligate Alkaliphilic Strain *Bacillus marmarensis* GMBE 72<sup>T</sup> isolated from Mushroom Compost (Tugba Ozgoren)
- Production of Cellulosic and Polyhydroxybutyrate Based Polymers and Applications in Tissue Engineering (Gülnihal Bozdağ)
- Small Scale Bioprocess Development and Imobilization of Lipase from *Cryptococcus albidus* (Abdussamed Uras)
- Purification and Characterization of Lipase Produced by *Cryptococcus species* isolated from Petroleum Sludge and Investigation its Usage in Pharmaceutical Industry (Esra Büyük)
- Development and Optimization of Purification Processes for Hyaluronic acid (Özge Buldağ)
- Development of Bacterial Cellulose and PLGS Blend for Skin Diseases (Fulya Çalman)
- Synthesis and characterization of biodegradable HA-PHB carrier systems by click reactions for tissue engineering applications (Berken Açıkgöz, Co-advisor)
- Synthesis of Biodegradable Bacterial Cellulose-Hyaluronic Acid Scaffold by Click Reactions (Şeyma Turan, Co-advisor)
- Development of lateral flow assay that immobilize VEGF-A/PD-L1 proteins (Ali Mişe)

## PhD Thesis

- Isolation and Identification of Industrially Important Protein Producing Bacteria from Local Ecosystems and Screening of Their Proteins (Hülya Bal)
- Proteomic Study and Flux Analysis of Metabolic Pathways of Halophilic Microorganisms (Selim Ceylan)
- Investigation of the Industrial Enzymes Produced by *Bacillus* sp Isolated from Acacia Tree (Hasan Ümit ÖZTÜRK)
- Catalytic Cracking of Waste Cooking Oil Using Low Cost Catalysts (Kamil Serkan Uzyol)
- Production of Polymeric Nanomaterials from Renewable Sources for Biomedical Applications (Elif Işıkcı Koca)
- Optimization of poly(3-hydroxybutyrate) production from a novel obligate alkaliphilic *B. marmarensis* (Yağmur Atakav)

## COURSES AND WORKSHOPS

### *A. Organised*

- From Network to Targets: Workshop on Omics Technologies and Applications, 7-9 July 2017
- III.BIOENGINEERING STUDENT CONGRESS, 12-13 March 2015
- Introduction to Proteomics II, 1-5 September 2008
- Introduction to Proteomics I, 24-27 April 2007
- Meetings on Identification of Food Microbiology, M.Ü. Eng. Faculty. 30 September 2005
- Mass Spectrometer and Proteomics Workshop, M.Ü. Eng. Faculty. 16-18 August 2004
- Enzyme Immobilization and Applications, TUBITAK-MAM-GMBAE, 12-16 July 1999
- Basic techniques for Enzyme Purification and Characterization, TUBITAK-MAM-GMBAE, Between 1998-2009 every year
- *Basic Principles and Applications in Enzyme Engineering*, TUBITAK-MAM-GMBAE, 13 - 19 July, 1997

## B. Invited

- Bioengineering Days., Yıldız Technical University., 2018
- Purification and Immobilization of Enzymes, 6th April 2014, II Bioengineering and Genetic Days, Yeditepe University, İstanbul
- Conversion of Lignocellulosic Materials to Fermentable Sugars, 16th March 2014, Ege University, II. Bioengineering Student Congress, İzmir; 17th March 2014, Energy Days, KMMO Student Days, Marmara University
- Proteom Technologies for Drug Development, 16-17 Mach 2013, KMMO Student Days, İTÜ
- Metabolomics: Proteomİstanbul, İstanbul University, Molecular Biology and Genetic Department, 15-17 July 2013
- Metabolomics: Proteomİstanbul, İstanbul University, Molecular Biology and Genetic Department, 12-17 July 2010
- Biotechnological Applications and potentialities of moderately halophilic bacteria
  - Turkish-German Workshop on Biotechnology and Bioengineering, 21-22 September, 2010, Aachen, Germany
- Introduction to Proteomics.
  - Proteomic Arařtırmaları: Temel Bilgiler ve Uygulamalı Örnekleri, 10-11 December 2009, İstanbul
- BIOTECHNOLOGICAL APPLICATIONS AND POTENTIAL OF MODERATELY HALOPHILIC BACTERIA, İstanbul Technical University, Molecular Biology and Genetic Department, 2009
- Biohydrogen Production and Industrial Applications, 14-15 April 2005, TÜBİTAK, GMBAE
- Gene Cloning and Expression in Procaryotic Systems, 2-13 July 2001 , 3-14 July 2000, and 5-16 October 1998, TÜBİTAK, GMBAE
- Molecular Biology Course, 28 June-09 July 1999, TÜBİTAK, GMBAE

## C. Attended

DATE	NAME OF THE COURSES
02-03 May 2001	Marketing Analysis, TÜSSİDE
05-06 April 2001	Customer Relations and Sales Techniques, TÜSSİDE
16-18 May 2001	Project Management Course, S&Q Mart
06-09 March 2000	“Biotechnology and Technology” (Production of Fungal Enzymes) British Council-Ege University İzmir-Turkey
08-10 January 1999	Business Excellence Model, TÜSİAD-KALDER
12 December 1996	<i>Time Management, Kogem, Arçelik</i>
11 December 1996	<i>Teamwork and Leadership, Kogem, Arçelik</i>
10 December 1996	<i>Total Quality Management, Kogem, Arçelik</i>
25-26 December 1996	<i>Project Management and Techniques, Kogem, Arçelik</i>
26-28 September 1996	VIII National Biophysic Congress, “ Applied Course for Molecular Biophysic and Biotechnological Applications”, Kocaeli-Turkey
10-14 July 1995	Program of The European Communities (MED Campus), “Down Stream Processes in Biotechnology”,
16-27 September 1991	NATO Advanced Study Institute on "Recent Advances in Biotechnology", Kuşadası, Turkey

## ***TEACHING RESPONSIBILITIES***

### **Undergraduate Courses**

General Chemistry  
Basic Principles in Chemical Engineering  
Introduction to Biochemical Engineering  
Chemical Kinetics  
Bioengineering Principles  
Bioreaction Engineering  
Bioprocess Design I  
Bioprocess Design II

### **Graduate Courses**

Reaction Kinetics and Mass Transfer  
Enzyme Kinetics  
Principles in Biotechnology  
Molecular Techniques Used for Identification of Microorganisms  
Enzyme and Fermentation Technology  
Proteomics and Mass Spectrometer  
Metabolomics  
Enzyme Technology

## ***AWARDS***

1. Best poster award : Coskun, A., Kazan, D., Akgöz, M., Berber, İ., Yazıcı, C., Bilsel, G., Karaosmanoglu, K., Sahin, J., Proteomics Profiling of Preservation Solution Prior to Renal Transplantation ‘5th Central and Eastern European Proteomic Conference, Prag, 19-21 September 2011,
2. Production of Industrial Enzymes for Feed Industry (YEM-EN)” TARAL 1007 Project, 2013 TÜBİTAK Marmara Research Center, within the scope of Research and Development, Technology Development Award.
3. Support Award from Marmara University Scientific Research Project Unit
4. “Production of Bioethanol from Lignosellulosic Waste: From husk to bioethanol” Research Award from AlbioBir