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Publons / Web Of Science ResearcherID: A-6152-2019

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Education Information

Doctorate, Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich), Biyoloji Bölümü Biyoteknoloji Enstitüsü, Switzerland 1996 - 2000

Postgraduate, Bogazici University, Institute Of Science, Kimya Mühendisliği (Dr), Turkey 1994 - 1996

Undergraduate Double Major, Bogazici University, Faculty Of Arts And Sciences, Department Of Molecular Biology And Genetics, Turkey 1992 - 1995

Undergraduate, Bogazici University, Faculty Of Engineering, Department Of Chemistry Engineering, Turkey 1990 - 1994

Foreign Languages

German, C1 Advanced

English, C1 Advanced

Dissertations

Doctorate, Metabolic Engineering of Yeast, Eidgenössische Technische Hochschule, Biyoloji Bölümü Biyoteknoloji Enstitüsü, 2000

Postgraduate, Cloning and expression of TagI endonuclease in E.coli by using the cloning vector pUC18, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (Dr), 1996

Research Areas

Life Sciences, Biotechnology, Industrial Biotechnology, Microbial Biotechnology, Molecular Biology and Genetics, Genomics, Microbial Genetics, Natural Sciences

Academic Titles / Tasks

Professor, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2012 - Continues

Associate Professor, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2006 - 2012

Assistant Professor, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2001 - 2006

Research Assistant, Universitaet Basel (University of Basel), Biocenter, Division Of Biochemistry, 2000 - 2001

Research Assistant, Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich), Institute

Of Biotechnology, Dept. Of Biology, 1996 - 2000

Research Assistant, Bogazici University, Faculty Of Engineering, Department Of Chemistry Engineering, 1994 - 1996

Academic and Administrative Experience

Director of the Center, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2022 - Continues

Head of Department, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2022 - Continues

İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Moleküler Biyoloji-Genetik Ve Biyoteknoloji (YI) (Tezli), 2013 - Continues

Member of the Senate, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2014 - 2017

İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2009 - 2016

Program Koordinatörü, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2010 - 2013

Adaptation/Exemption Committee Member, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2005 - 2011

İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2006 - 2009

Bölüm Stratejik Plan Komisyonu Üyesi, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2005 - 2008

Deputy Director of the Center, Istanbul Technical University, Fen-Edebiyat, 2004 - 2006

Internship Committee Member, Istanbul Technical University, Fen-Edebiyat, Moleküler Biyoloji Ve Genetik, 2003 - 2005

Courses

Microbial Physiology, Undergraduate, 2021 - 2022

BIO451E INDUSTRIAL MICROBIOLOGY, Undergraduate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **From *Saccharomyces cerevisiae* to Ethanol: Unlocking the Power of Evolutionary Engineering in Metabolic Engineering Applications**
Topaloğlu A., Esen Ö., Turanlı-Yıldız B., Arslan M., Çakar Z. P.
JOURNAL OF FUNGI, vol.9, pp.1-26, 2023 (SCI-Expanded)
- II. **Genomic, transcriptomic, and metabolic characterization of 2-Phenylethanol-resistant *Saccharomyces cerevisiae* obtained by evolutionary engineering**
Holyavkin C., Turanlı-Yıldız B., Yılmaz Ü., Alkim C., Arslan M., Topaloğlu A., Kisakesen H. İ., de Billerbeck G., François J. M., Çakar Z. P.
Frontiers in Microbiology, vol.14, 2023 (SCI-Expanded)
- III. **Microbial silver resistance mechanisms: recent developments**
Terzioglu E., Arslan M., Balaban B. G., Çakar Z. P.
WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, vol.38, no.9, 2022 (SCI-Expanded)
- IV. **Understanding the adaptive laboratory evolution of multiple stress-resistant yeast strains by genome-scale modeling**
Cetin H., Çakar Z. P., Ulgen K. O.
YEAST, vol.39, no.8, pp.449-465, 2022 (SCI-Expanded)
- V. **Physiological and Molecular Characterization of an Oxidative Stress-Resistant *Saccharomyces cerevisiae* Strain Obtained by Evolutionary Engineering**
Kocaefe-Ozsən N., Yılmaz B., Alkim C., Arslan M., Topaloğlu A., Kisakesen H. İ., Gülsev E., Çakar Z. P.
FRONTIERS IN MICROBIOLOGY, vol.13, 2022 (SCI-Expanded)
- VI. **Analysis of university student responses to the pandemic in a formal microbiology assessment**

- Çakar Z. P., Redfern J., Verran J.
FEMS MICROBIOLOGY LETTERS, vol.368, no.14, 2021 (SCI-Expanded)
- VII. **Genomic, transcriptomic and physiological analyses of silver-resistant *Saccharomyces cerevisiae* obtained by evolutionary engineering**
Terzioglu E., Alkim C., Arslan M., Balaban B. G., Holyavkin C., Kisakesen H. I., Topaloğlu A., Sahin U. Y., Isik S. G., Akman S., et al.
YEAST, vol.37, pp.413-426, 2020 (SCI-Expanded)
- VIII. **Evolutionary Engineering of an Iron-Resistant *Saccharomyces cerevisiae* Mutant and Its Physiological and Molecular Characterization**
Balaban B. G., Yilmaz U., Alkim C., Topaloğlu A., Kisakesen H. I., Holyavkin C., Çakar Z. P.
MICROORGANISMS, vol.8, no.1, 2020 (SCI-Expanded)
- IX. **Evolutionary engineering and molecular characterization of a caffeine-resistant *Saccharomyces cerevisiae* strain**
Surmeli Y., Holyavkin C., Topaloğlu A., Arslan M., Kisakesen H. I., Çakar Z. P.
WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, vol.35, no.12, 2019 (SCI-Expanded)
- X. **Genomic and transcriptomic analysis of a coniferyl aldehyde-resistant *Saccharomyces cerevisiae* strain obtained by evolutionary engineering**
Hacisalihoğlu B., Holyavkin C., Topaloğlu A., Kisakesen H. I., Çakar Z. P.
FEMS YEAST RESEARCH, vol.19, no.3, 2019 (SCI-Expanded)
- XI. **The synthesis and investigation of photochemical, photophysical and biological properties of new lutetium, indium, and zinc phthalocyanines substituted with PEGME-2000 blocks**
Uslan C., Koksoy B., Durmuş M., Durmuş İşleyen N., Öztürk Y., Çakar Z. P., Gürsel Y., Sesalan B. Ş.
JOURNAL OF BIOLOGICAL INORGANIC CHEMISTRY, vol.24, pp.191-210, 2019 (SCI-Expanded)
- XII. **Physiological and Transcriptomic Analysis of a Chronologically Long-Lived *Saccharomyces cerevisiae* Strain Obtained by Evolutionary Engineering**
Arslan M., Holyavkin C., Kisakesen H. İ., Topaloğlu A., Sürmeli Y., Çakar Z. P.
MOLECULAR BIOTECHNOLOGY, vol.60, no.7, pp.468-484, 2018 (SCI-Expanded)
- XIII. **An improved semi-quantitative spot assay to analyse chronological lifespan in yeast**
Arslan M., TURANLI-YILDIZ B., YILMAZ B., KOCAEFE N., Çakar Z. P.
ROMANIAN BIOTECHNOLOGICAL LETTERS, vol.23, no.3, pp.13551-13560, 2018 (SCI-Expanded)
- XIV. **A novel of PEG-conjugated phthalocyanine and evaluation of its photocytotoxicity and antibacterial properties for photodynamic therapy**
Uslan C., İşleyen N. D., Öztürk Y., Yıldız B. T., Çakar Z. P., Goksel M., Durmus M., Gursel Y. H., Sesalan B. Ş.
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.22, pp.10-24, 2018 (SCI-Expanded)
- XV. **In vivo evolutionary engineering for ethanol-tolerance of *Saccharomyces cerevisiae* haploid cells triggers diploidization**
TURANLI-YILDIZ B., BENBADIS L., ALKIM C., SEZGIN T., AKSIT A., GOKCE A., OZTURK Y., BAYKAL A. T., Çakar Z. P., FRANCOIS J. M.
JOURNAL OF BIOSCIENCE AND BIOENGINEERING, vol.124, no.3, pp.309-318, 2017 (SCI-Expanded)
- XVI. **Comparative genomic analysis of two heat-resistant *Rhodobacter capsulatus* mutants with different hydrogen production levels reveals mutations related to hydrogen production**
GOKCE A., OZTURK Y., Çakar Z. P.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.32, pp.20529-20539, 2017 (SCI-Expanded)
- XVII. **Biotechnological exploitation of *Tetrapisispora phaffii* killer toxin: heterologous production in *Komagataella phaffii* (*Pichia pastoris*)**
CHESSA R., LANDOLFO S., CIANI M., BUDRONI M., ZARA S., USTUN M., Çakar Z. P., MANNAZZU I.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.101, no.7, pp.2931-2942, 2017 (SCI-Expanded)
- XVIII. **Effect of acetate to biomass ratio on simultaneous polyhydroxybutyrate generation and direct microbial growth in fast growing microbial culture**
Biros Y., COKGOR E. U., YAGCI N., PALA-OZKOK I., CAKAR Z. P., Sözen S., ORHON D.
BIORESOURCE TECHNOLOGY, vol.171, pp.314-322, 2014 (SCI-Expanded)

- XIX. **Acute impact of erythromycin on substrate utilization by activated sludge: effect of sludge age**
Pala-Ozkok I., UBAY-COKGOR E., Çakar Z. P., ORHON D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.89, no.7, pp.1091-1102, 2014 (SCI-Expanded)
- XX. **The synthesis of new silicon phthalocyanines and analysis of their photochemical and biological properties**
Demirkapi D., SIRIN A., TURANLI-YILDIZ B., Çakar Z. P., Sesalan B. Ş.
SYNTHETIC METALS, vol.187, pp.152-159, 2014 (SCI-Expanded)
- XXI. **Evolutionary engineering and transcriptomic analysis of nickel-resistant *Saccharomyces cerevisiae***
Kucukgoze G., ALKIM C., YILMAZ U., KISAKESEN H. I., GUNDUZ S., AKMAN S., Çakar Z. P.
FEMS YEAST RESEARCH, vol.13, no.8, pp.731-746, 2013 (SCI-Expanded)
- XXII. **Mechanisms other than activation of the iron regulon account for the hyper-resistance to cobalt of a *Saccharomyces cerevisiae* strain obtained by evolutionary engineering**
Alkim C., Benbadis L., YILMAZ U., Çakar Z. P., Francois J. M.
METALLOMICS, vol.5, no.8, pp.1043-1060, 2013 (SCI-Expanded)
- XXIII. **Temperature resistant mutants of *Rhodobacter capsulatus* generated by a directed evolution approach and effects of temperature resistance on hydrogen production**
Gokce A., OZTURK Y., Çakar Z. P., Yucel M.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.37, no.21, pp.16466-16472, 2012 (SCI-Expanded)
- XXIV. **Physiological and molecular characterization of iron stress-resistant *Saccharomyces cerevisiae* mutant obtained by evolutionary engineering**
BALABAN B. G., YILMAZ U., GUNDUZ S., Akman S., Çakar Z. P.
NEW BIOTECHNOLOGY, vol.29, 2012 (SCI-Expanded)
- XXV. **Evolutionary engineering of *Saccharomyces cerevisiae* for improved industrially important properties**
Çakar Z. P., TURANLI-YILDIZ B., ALKIM C., YILMAZ U.
FEMS YEAST RESEARCH, vol.12, no.2, pp.171-182, 2012 (SCI-Expanded)
- XXVI. **The use of novel photobleachable phthalocyanines to image DNA**
Turanli-Yildiz B., SEZGIN T., Çakar Z. P., USLAN C., Sesalan B. Ş., GUL A.
SYNTHETIC METALS, vol.161, pp.1720-1724, 2011 (SCI-Expanded)
- XXVII. **In vivo evolutionary engineering of a boron-resistant bacterium: *Bacillus boroniphilus***
SEN M., YILMAZ U., BAYSAL A., Akman S., Çakar Z. P.
Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology, vol.99, no.4, pp.825-835, 2011 (SCI-Expanded)
- XXVIII. **Isolation of cobalt hyper-resistant mutants of *Saccharomyces cerevisiae* by in vivo evolutionary engineering approach**
Çakar Z. P., ALKIM C., TURANLI B., TOKMAN N., AKMAN S., SARIKAYA M., TAMERLER C., BENBADIS L., FRANCOIS J. M.
JOURNAL OF BIOTECHNOLOGY, vol.143, no.2, pp.130-138, 2009 (SCI-Expanded)
- XXIX. **Metabolic and evolutionary engineering research in Turkey and beyond.**
Cakar Z. P.
Biotechnology journal, vol.4, pp.992-1002, 2009 (SCI-Expanded)
- XXX. **ENHANCED POLYHYDROXYALKANOATE PRODUCTION BY *Paracoccus pantotrophus* FROM GLUCOSE AND MIXED SUBSTRATE**
UCISIK-AKKAYA E., ERCAN O., YESILADALI S. K., OZTURK T., Ubay-Cokgor E., Orhon D., TAMERLER C., Çakar Z. P.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.18, no.11, pp.2013-2022, 2009 (SCI-Expanded)
- XXXI. **FLUORESCENCE IN SITU HYBRIDIZATION FOR THE ASSESSMENT OF NITRIFYING BACTERIA IN A PILOT-SCALE MEMBRANE BIOREACTOR**
Pala I., KOLUKIRIK M., Insel G., İnce O., Çakar Z. P., ORHON D.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.17, pp.2255-2261, 2008 (SCI-Expanded)
- XXXII. **Respirometric evaluation and modeling of glucose utilization by *Escherichia coli* under aerobic and mesophilic cultivation conditions**

- Insel G., CELIKYILMAZ G., UCISIK-AKKAYA E., YESILADALI K., Cakar Z. P., TAMERLER C., ORHON D.
BIOTECHNOLOGY AND BIOENGINEERING, vol.96, no.1, pp.94-105, 2007 (SCI-Expanded)
- XXXIII. Accumulation of polyhydroxyalkanoates by *Microlunatus phosphovorus* under various growth conditions**
Akar A., AKKAYA E., YESILADALI S., CELIKYILMAZ G., COKGOR E., TAMERLER C., ORHON D., Cakar Z. P.
JOURNAL OF INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, vol.33, no.3, pp.215-220, 2006 (SCI-Expanded)
- XXXIV. Evolutionary engineering of multiple-stress resistant *Saccharomyces cerevisiae***
Cakar Z. P., SEKER U., TAMERLER C., SONDEREGGER M., SAUER U.
FEMS YEAST RESEARCH, vol.5, pp.569-578, 2005 (SCI-Expanded)
- XXXV. Caveolae biochemical analysis**
Christian C. R., Çakar Z. P., Jenö P., Kuzmenko E. S., Fiedler K.
MOLECULAR BIOLOGY REPORTS, vol.31, pp.67-84, 2004 (SCI-Expanded)
- XXXVI. LDL transcytosis by protein membrane diffusion**
Çakar Z. P.
Int. J. Biochemistry & Cell Biology, vol.36, pp.519-534, 2004 (SCI-Expanded)
- XXXVII. Metabolic flux profiling of the yeasts *Saccharomyces cerevisiae* and *Pichia stipitis***
Fiaux J., Çakar Z. P., Sonderegger M., Wüthrich K., Szyperski T., Sauer U.
EUKARYOTIC CELL, vol.2, pp.170-180, 2003 (SCI-Expanded)
- XXXVIII. Central carbon metabolism of *Saccharomyces cerevisiae* explored by biosynthetic fractional ¹³C labeling of common amino acids**
Maaheimo H., Fiaux J., Çakar Z. P., Bailey J. E., Sauer U., Szyperski T.
European J. Biochemistry, vol.268, pp.2464-2479, 2001 (SCI-Expanded)
- XXXIX. Vacuolar morphology and cell cycle distribution are modified by leucine limitation in auxotrophic *Saccharomyces cerevisiae***
Çakar Z. P.
Biol. Cell, vol.92, pp.629-637, 2000 (SCI-Expanded)
- XL. Metabolic engineering of yeast the perils of auxotrophic hosts**
Çakar Z. P., Sauer U., James E B.
BIOTECHNOLOGY LETTERS, vol.21, no.7, pp.611-616, 1999 (SCI-Expanded)

Articles Published in Other Journals

- I. Comprehensive genome-scale metabolic model of the human pathogen *Cryptococcus neoformans*: A platform for understanding pathogen metabolism and identifying new drug targets
Tezcan E. F., Demirtas Y., Çakar Z. P., Ulgen K. O.
Frontiers in Bioinformatics, vol.3, 2023 (Scopus)
- II. Evolutionary Engineering Applications in Microbial Ethanol Production
HACISALİHOĞLU B., BURCU T. Y., ÇAKAR Z. P.
JSM Biotechnolgy and Biomedical Engineering, vol.5, no.1, pp.1082, 2018 (Peer-Reviewed Journal)
- III. Draft Genome Sequences of Two Heat-Resistant Mutant Strains (A52 and B41) of the Photosynthetic Hydrogen-Producing Bacterium *Rhodobacter capsulatus*
Gokce A., Çakar Z. P., Yucel M., Ozcan O., Sencan S., Sertdemir I., Erguner B., Yuceturk B., Sarac A., Yuksel B., et al.
MICROBIOLOGY RESOURCE ANNOUNCEMENTS, vol.4, no.3, 2016 (ESCI)
- IV. Demir Stresine Direnç Kazandırılmış *Saccharomyces cerevisiae* Mayasının Demir Taşınımı ile İlişkili Genlerinin Anlatım Düzeylerinin Gerçek Zamanlı, Kantitatif Polimeraz Zincir Reaksiyonu (q rt-PCR) ile Belirlenmesi
Balaban B. G., YILMAZ U., ALKIM C., Çakar Z. P.
TÜRK MİKROBİYOLOJİ CEMİYETİ DERGİSİ, vol.46, no.1, pp.8-17, 2016 (Peer-Reviewed Journal)
- V. Potansiyel Zeytin Probiyotik Suşunun *in vitro* Sindirim Sistemindeki Canlılığının Araştırılması
ÖZTÜRK T., VENEMA K., ÇAKAR Z. P., BORCAKLI M.

- Zeytin Bilimi Dergisi, vol.6, no.1, pp.19-24, 2016 (Peer-Reviewed Journal)
- VI. Determination of Iron Transport Related Gene Expression Levels in Acquired Iron Stress Resistant *Saccharomyces cerevisiae* Yeast Using Real Time Quantitative Polymerase Chain Reaction q rt PCR**
 BALABAN B. G., YILMAZ Ü., ALKIM C., ÇAKAR Z. P.
 Türk Mikrobiyoloji Cemiyeti Dergisi, vol.46, no.1, pp.8-17, 2016 (Peer-Reviewed Journal)
- VII. Physiological and genetic analysis of cellular sodium and lithium response/resistance behavior using the yeast *Saccharomyces cerevisiae* as a model organism**
 Tekarslan Ş. H., Alkim C., HUNTE C., Çakar Z. P.
 Journal of Pharmacy of Istanbul University, vol.45, no.2, pp.165-179, 2015 (ESCI)
- VIII. Evolutionary Engineering of Yeast**
 Alkim C., Turanlı-Yıldız B., Çakar Z. P.
 YEAST METABOLIC ENGINEERING: METHODS AND PROTOCOLS, vol.1152, pp.169-183, 2014 (Scopus)

Books & Book Chapters

- I. Advances in Metabolic Engineering of *Saccharomyces cerevisiae* for the Production of Industrially and Clinically Important Chemicals**
 TURANLI-YILDIZ B., Hacisalihoğlu B., Çakar Z. P.
 in: Old Yeasts New Questions, Lucas C., Pais C., Editor, Intech Open Horizons Publishing Company, Rijeka, pp.67-86, 2017
- II. Microfluidics and Its Applications in Bionanotechnology**
 Çakar Z. P., Hacisalihoğlu B.
 in: Low-Dimensional and Nanostructured Materials and Devices, Ünlü H., Horing N.J.M., Dabowski J., Editor, Springer-Verlag, Berlin, pp.589-607, 2016
- III. Bölüm 6, Bir Genomin İşleyişini Anlamak**
 ÇAKAR Z. P.
 in: Genomlar 3 orijinal Genomes 3, Fevzi Bardakçı, Celal Ülger (Çeviri editörleri), Editor, Nobel Yayınevi (orijinal eser: Garland Science yayınevi), Ankara, pp.167-193, 2015
- IV. Evolutionary engineering of yeast**
 Alkim C., Turanlı Yıldız B., ÇAKAR Z. P.
 in: Yeast Metabolic Engineering Methods and Protocols, Valeria Mapelli, Editor, Humana Press, Springer, pp.169-183, 2014
- V. Protein Engineering: Methods and Applications**
 Turanlı-Yıldız B., Alkim C., Çakar Z. P.
 in: Protein Engineering, Kaumaya P, Editor, Intech International Publishers, Rijeka, pp.33-58, 2012
- VI. Tersine Metabolik Mühendislik ve Uygulamaları**
 TuranlıYıldız B., ÇAKAR Z. P.
 in: Metabolizma Mühendisliği, Prof. Dr. Azmi Telefoncu, Prof. Dr. Nurdan Pazarlıoğlu, Editor, Birleşik Matbaacılık, İzmir, pp.195-212, 2011

Refereed Congress / Symposium Publications in Proceedings

- I. Evolutionary Engineering and Molecular Characterization of Stress-resistant Yeasts Using Systems Biology Tools**
 ÇAKAR Z. P.
 ISSY-35 (The 35th International Specialised Symposium on Yeasts), Antalya, Turkey, 21 - 25 October 2019, pp.43
- II. Chronological life span of stress-resistant *Saccharomyces cerevisiae* mutants obtained by inverse metabolic engineering**
 ARSLAN M., SÜRMELİ Y., TOPALOĞLU A., ÇAKAR Z. P.

- International ITU Molecular Biology and Genetics Student Congress'xx17, İstanbul, Turkey, 6 - 08 October 2017
- III. **COMPARATIVE GENOMIC ANALYSIS OF TWORHODOBACTER CAPSULATUS STRAINS WITHMODIFIED HYDROGEN PRODUCTION CAPACITIESREVEALED IMPORTANCE OF A MISSENSE MUTATION ON PII URIDYL TRANSFERASE**
GÖKÇE A., ÖZTÜRK Y., ÇAKAR Z. P.
BIOENG'16, IV. International Bioengineering Conference, İstanbul, Turkey, 13 - 14 October 2016
- IV. **Synthesis of a novel SiPc-PEG1000 and Evaluation of Its Antibacterial Properties**
Uslan C., Durmuş İşleyen N., Öztürk Y., Yıldız B. T., Çakar Z. P., Gürsel Y., Sesalan B. Ş.
13. European Biological Inorganic Chemistry Conference, Budapeşte, Hungary, 28 August - 01 September 2016, pp.338
- V. **Synthesis of Novel SiPc PEG1000 and evaluation of Its Antibacterial Properties**
USLAN C., DURMUT İTLEYEN N., ÖZTÜRK Y., TURANLI YILDIZ B., ÇAKAR Z. P., GÜRSEL Y., SESALAN B. Ş.
13th European Biological Inorganic Chemistry Conference, 28 August - 01 September 2016
- VI. **Evolutionary Engineering of Caffeine resistant *Saccharomyces cerevisiae***
SÜRMELİ Y., ARSLAN M., TOPALOĞLU A., ÇAKAR Z. P.
6th Conference on Physiology of Yeasts and Filamentous Fungi, PYFF6, Lisbon, Portugal, 11 - 14 July 2016
- VII. **Evolutionary Engineering of Resistance to Phenolic Compounds in *Saccharomyces cerevisiae***
HACISALİHOĞLU B., YETİŞ Ö., İPEK Y., ÇAKAR Z. P.
6th Conference on Physiology of Yeasts and Filamentous Fungi, PYFF6, Lisbon, Portugal, 11 - 14 July 2016
- VIII. **Evolutionary engineering of ethanol-tolerant *Saccharomyces cerevisiae* triggers diploidization of haploid cells**
Çakar Z. P., TURANLI-YILDIZ B., BENBADIS L., Alkim C., SEZGIN T., AKSIT A., GOKCE A., OZTURK Y., BAYKAL A. T., FRANCOIS J. M.
PYFF6: 6th Conference on Physiology of Yeast and Filamentous Fungi, Lisbon, Portugal, 11 - 14 July 2016, pp.129
- IX. **Longevity of stress resistant yeast mutants obtained by evolutionary engineering**
Arslan M., Sürmeli Y., Topaloğlu A., Çakar Z. P.
Cell Symposia: Aging and Metabolism, Sitges, Spain, 10 - 12 July 2016
- X. **Evolutionary engineering of a aluminium resistant *Saccharomyces cerevisiae***
Durmuş İşleyen N., ÇAKAR Z. P.
Microbial Stress: from molecules to systems (uluslararası konferans), Sitges, Spain, 12 - 15 November 2015
- XI. **Physiological and transcriptomic analysis of a silver-resistant *Saccharomyces cerevisiae* strain obtained by evolutionary engineering**
Terzioğlu E., Alkim C., Arslan M., Kisakesen H. İ., Yılmaz Ü., Balaban B. G., Selçuki C., Çakar Z. P.
Microbial stress meeting: from molecules to systems, Sitges, Spain, 12 - 14 November 2015, pp.23
- XII. **Inverse metabolic engineering and molecular characterization of resistance to phenolic compounds in *Saccharomyces cerevisiae***
SÖNMEZ B., ÇAKAR Z. P.
Industrial Biotechnology for Lignocellulose Based Processes, Gothenburg, Sweden, 25 - 30 October 2015, pp.35
- XIII. **The investigation of oxidative decomposition of phenyl alanine by transition metal ions**
Aydın O., ÇAKAR Z. P., BALTA B.
XI. Chemical Physics Congress, İstanbul, Turkey, 17 - 18 October 2014, pp.78
- XIV. **Yeast metabolic engineering applications in applied and molecular microbiology**
ÇAKAR Z. P.
International ITU Molecular Biology & Genetics Student Congress 2014, İstanbul, Turkey, 15 - 18 August 2014, pp.10
- XV. **Metabolic and evolutionary engineering strategies to obtain robust yeast strains**
ÇAKAR Z. P.
METU Dept. of Biotechnology, Dept. seminar, Ankara, Turkey, 4 - 06 May 2014
- XVI. **Microbial biotechnology applications using metabolic engineering Metabolik mühendislik ile mikrobiyel biyoteknoloji uygulamaları**
ÇAKAR Z. P.

- XVII. **Evolutionary engineering a powerful strategy for yeast strain development**
ÇAKAR Z. P.
27th VH-Yeast Conference, İstanbul, Turkey, 14 - 15 April 2014, pp.143-150
- XVIII. **Evolutionary engineering and molecular characterization of salt-resistant *Saccharomyces cerevisiae***
Tekarslan Ş. H., Sezgin T., Yılmaz Ü., Alkım C., Ördek N., Tekin M. A., Gündüz S., Akman S., Çakar Z. P.
PYFF5: 5th Conference on Physiology of Yeast and Filamentous Fungi, Montpellier, France, 4 - 07 June 2013,
pp.139
- XIX. **Ağır Metallere Dirençli Mutant Mayaların Ağır Metal Atıklarının Giderilmesinde Değerlendirilmesi**
Çini N., Turanlı B., Yılmaz Ü., Ercan O., Çakar Z. P., Tulun T.
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Supported Projects

Çakar Z. P., Project Supported by Higher Education Institutions, Evrimsel mühendislik yaklaşımı ile etanole dirençli *Saccharomyces cerevisiae* mayasının eldesi, haploid maya hücrelerinin diploidizasyonunu tetiklemektedir. (SÖZLÜ BİLDİRİ), 2016 - 2018

Çakar Z. P., Project Supported by Higher Education Institutions, Sıcaklık stresine dirençli *Rhodobacter capsulatus* bakteri suşlarının transkriptomik analizi., 2016 - 2018

Çakar Z. P., Project Supported by Higher Education Institutions, GÜMÜŞ İYONLARA DİRENÇLİ SACCHAROMYCES CEREVISIAE MAYASININ FİZYOLOJİK VE TRANSKRİPTOMİK ANALİZİ, 2015 - 2018

Çakar Z. P., Project Supported by Higher Education Institutions, Yüksek Tuz Konsantrasyonlarına Dirençli *Saccharomyces cerevisiae* Maya Mutantının Moleküller ve Fizyolojik Karakterizasyonu, 2014 - 2018

Çakar Z. P., Project Supported by Higher Education Institutions, EVRİMSEL MÜHENDİSLİK MAYA STRES CEVAPLARINI ANALİZ ETMEK İÇİN GÜÇLÜ BİR YAKLAŞIM, 2010 - 2018

Çakar Z. P., Project Supported by Higher Education Institutions, Moleküler Biyoloji ve Genetik Bölümü Laboratuvarlarının Altyapısının İyileştirilmesi, 2015 - 2016

Çakar Z. P., Project Supported by Higher Education Institutions, Gümüş İyonlarına Dirançlı *Saccharomyces cerevisiae* Mayasının Eldesi ve Moleküler Karakterizasyonu, 2013 - 2016

Çakar Z. P., Project Supported by Higher Education Institutions, Moleküler Biyoloji ve Genetik Bölüm Laboratuvarının Altyapısının İyileştirilmesi, 2012 - 2013

Çakar Z. P., Project Supported by Higher Education Institutions, Donma Erime Stresine Dirençli *Saccharomyces cerevisiae* Mayalarının Evrensel Mühendislik ile Eldesi ve Moleküler Karakterizasyonu, 2010 - 2013

Çakar Z. P., Project Supported by Higher Education Institutions, Strese Dirençli *Saccharomyces cerevisiae* Mayalarının Mühendislik Yöntemiyle Eldesi ve Moleküler Düzeyde Karakterizasyonu, 2010 - 2012

Çakar Z. P., Project Supported by Higher Education Institutions, Moleküler Biyoloji ve genetik Laboratuvar Altyapısının İyileştirilmesi, 2010 - 2012

Çakar Z. P., Project Supported by Higher Education Institutions, Etanole Dirençli *Saccharomyces cerevisiae* Mayalarının Evrimsel Mühendisliği ve Moleküler Karakterizasyonu, 2009 - 2012

Çakar Z. P., Project Supported by Higher Education Institutions, SACCHAROMYCES CEREVISIAE MAYASINDA STRES DİRENCİ İLE ADHESYON/FLOKÜLASYON ARASINDAKİ İLKİNİN FİZYOLOJİK VE GENETİK AÇIDAN İNCELENMESİ, 2010 - 2010

Çakar Z. P., Project Supported by Higher Education Institutions, Endüstriyel mikroorganizmaların yönlendirilmiş evrim yöntemi ile stress şartlarına dirençli hale getirilmesi, 2002 - 2005

Çakar Z. P., Project Supported by Higher Education Institutions, Substrat Bileşimi ve Besleme Biçimlerinin Biyokimyasal Depolama Üzerindeki Etkileri, 2004 - 2004

Activities in Scientific Journals

Frontiers in Microbiology, Assistant Editor/Section Editor, 2022 - Continues

Turkish Journal Of Biology, Committee Member, 2018 - Continues

Metrics

Publication: 78

Citation (WoS): 605

Citation (Scopus): 739

H-Index (WoS): 12

H-Index (Scopus): 14

Non Academic Experience

Procter & Gamble, Egham-İngiltere

Turk-Hoechst A.Ş., İstanbul

Business Organization (private), Procter & Gamble, Egham-İngiltere

Business Establishment Private, Turk Hoechst A.Ş.