

Prof. NİHAT ALPAGU SAYAR

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: P-8187-2015

ScopusID: 12766657300

Yoksis Researcher ID: 43315

Education

Doctorate, University College London, Biyokimya Mühendisliği, United Kingdom 2004 - 2010

Undergraduate, University College London, Biyokimya Mühendisliği, United Kingdom 2000 - 2004

Foreign Languages

English, C2 Mastery

Research Areas

Biochemical Reaction Engineering, Bioprocess Separation Processes, Biotechnological Processes and Fermentation Technology

Academic Positions

Associate Professor, Marmara University, Faculty of Engineering, Bioengineering, 2017 - Continues

Assistant Professor, Marmara University, Faculty of Engineering, Bioengineering, 2012 - 2017

Research Assistant, University of Exeter, Mühendislik, Sistem Biyoloji, 2011 - 2012

Research Assistant, University College London, Mühendislik, Biyokimya Mühendisliği, 2004 - 2008

Courses

Postgraduate

Downstream Processing, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

Bioprocess Optimisation, Postgraduate, 2020 - 2021, 2019 - 2020

Bioprocess Design and Implementation, Postgraduate, 2018 - 2019, 2017 - 2018

Biochemical Engineering and New Bioprocess Challenges, Postgraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2012 - 2013

Undergraduate

Integrated Downstream Processing, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

Bioprocess Design 2, Undergraduate, 2022 - 2023

Bioengineering Project II, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bioengineering Project I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bioengineering Thermodynamics, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2016 - 2017

Management of Bioprocess Development, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Scientific Programming, Undergraduate, 2019 - 2020, 2018 - 2019

Biosystem Unit Operations, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Bioprocess Optimisation, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Supervised Theses

Sayar N. A., Multiobjective optimization of lignocellulolytic enzyme production by the white-rot fungus *Pycnoporus sanguineus* (DSMZ 3024) using hazelnut husk as a substrate, Doctorate, Z.YILMAZ(Student), 2020

Sariyar Akbulut B., SAYAR N. A., Biotransformation studies with *Curvularia lunata*, Postgraduate, D.YILMAZ(Student), 2019

Sayar N. A., Multi-objective optimization at a crude novel lipase catalyzed fame production: Kriging as an alternative to RSM, Doctorate, C.KULA(Student), 2018

Sayar N. A., Biochemical characterization of newly identified lipases for utilization in lipase-catalysed reactions, Postgraduate, D.ELİF(Student), 2016

Sariyar Akbulut B., SAYAR N. A., Effect of temperature on osmolyte regulation strategy using engineering tools, Postgraduate, H.MANGAOĞLU(Student), 2013

Journal articles indexed in SCI, SSCI, and AHCI

- I. **De novo production of eumelanin in a fermentative process with *Corynebacterium glutamicum***
Kurpejović E., Karcioglu C., Abdullahoglu E., SAYAR N. A., Wendisch V. F., SARIYAR AKBULUT B.
Biocatalysis and Biotransformation, 2025 (SCI-Expanded)
- II. **Development of a novel process towards an L-malate biorefinery using methanol as feedstock**
Bastem G. M., SAYAR N. A., Brito L. F., Brautaset T., Virant D., SARIYAR AKBULUT B.
Chemical Engineering Research and Design, vol.212, pp.158-167, 2024 (SCI-Expanded)
- III. **Valorization of hazelnut husk as a carbon source for L-DOPA production with *Corynebacterium glutamicum***
Pakalin B., Kurpejović E., Bastem G. M., SAYAR N. A., Wendisch V. F., Akbulut B.
Biochemical Engineering Journal, vol.190, 2023 (SCI-Expanded)
- IV. **A methylotroph to produce L-malic acid in a techno-economically feasible way**
Bastem G. M., Sayar N. A., Kosec G., Wendisch V. F., Brautaset T., Akbulut B. S.
FEBS OPEN BIO, vol.12, pp.305, 2022 (SCI-Expanded)
- V. **Carvacrol Enhances the Antimicrobial Potency of Berberine in *Bacillus subtilis***
Atas B., Aksoy C. S., Avci F. G., SAYAR N. A., Ulgen K., ÖZKIRIMLI ÖLMEZ E., SARIYAR AKBULUT B.
CURRENT MICROBIOLOGY, vol.79, no.5, 2022 (SCI-Expanded)
- VI. **Potentiation of the activity of berberine for *Staphylococcus aureus* in a combinatorial treatment with thymol**

- Aksoy C. S., Avci F. G., Ugurel O. M., Atas B., SAYAR N. A., Akbulut B.
MICROBIAL PATHOGENESIS, vol.149, 2020 (SCI-Expanded)
- VII. **Assessment of different carbon and salinity level on growth kinetics, lipid, and starch composition of *Chlorella vulgaris* SAG 211-12**
Kaplan E., SAYAR N. A., KAZAN D., SAYAR A. A.
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.17, no.4, pp.290-300, 2020 (SCI-Expanded)
- VIII. **Process simulation-integrated optimization of lignocellulolytic enzyme production**
Yilmaz-Sercinoglu Z., SAYAR N. A.
Biochemical Engineering Journal, vol.153, 2020 (SCI-Expanded)
- IX. **Techno-economic analysis of caffeine and catechins production from black tea waste**
SAYAR N. A., DURMAZ ŞAM S., PİNAR O., Serper D., SARIYAR AKBULUT B., KAZAN D., SAYAR A. A.
Food And Bioproducts Processing, vol.118, pp.1-12, 2019 (SCI-Expanded)
- X. **Multi-objective optimization of a novel crude lipase-catalyzed fatty acid methyl ester (FAME) production using low-order polynomial and Kriging models**
KULA C., SAYAR N. A.
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.16, no.8, pp.657-665, 2019 (SCI-Expanded)
- XI. **Bioethanol Production From Turkish Hazelnut Husk Process Design and Economic Evaluation**
SAYAR N. A., PİNAR O., KAZAN D., SAYAR A. A.
WASTE AND BIOMASS VALORIZATION, vol.10, no.4, pp.909-923, 2019 (SCI-Expanded)
- XII. **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**
ALTINIŞIK KAYA F. E., Avci F. G., SAYAR N. A., KAZAN D., SAYAR A. A., SARIYAR AKBULUT B.
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.22, no.11, pp.717-732, 2018 (SCI-Expanded)
- XIII. **Manually modified design of experiments for early biocatalyst evaluation - lipase-catalysed fatty acid methyl ester production**
Kula C., Sayar N. A.
NEW BIOTECHNOLOGY, vol.44, 2018 (SCI-Expanded)
- XIV. **Retro-techno-economic evaluation of acetic acid production using cotton stalk as feedstock**
SAYAR N. A., KAZAN D., PİNAR O., SARIYAR AKBULUT B., SAYAR A. A.
JOURNAL OF MATERIAL CYCLES AND WASTE MANAGEMENT, vol.20, no.4, pp.2077-2088, 2018 (SCI-Expanded)
- XV. **Targeting a hidden site on class A beta-lactamases**
Avci F. G., ALTINIŞIK KAYA F. E., Karacan I., Karagoz D. S., Ersahin S., Eren A., SAYAR N. A., Ulu D. V., ÖZKIRIMLI ÖLMEZ E., SARIYAR AKBULUT B.
JOURNAL OF MOLECULAR GRAPHICS & MODELLING, vol.84, pp.125-133, 2018 (SCI-Expanded)
- XVI. **An OMIC approach to elaborate the antibacterial mechanisms of different alkaloids**
Avci F. G., SAYAR N. A., Akbulut B.
PHYTOCHEMISTRY, vol.149, pp.123-131, 2018 (SCI-Expanded)
- XVII. **Assessment of hazelnut husk as a lignocellulosic feedstock for the production of fermentable sugars and lignocellulolytic enzymes**
PİNAR O., Karaosmanoglu K., SAYAR N. A., KULA C., KAZAN D., SAYAR A. A.
3 BIOTECH, vol.7, 2017 (SCI-Expanded)
- XVIII. **Response of *Escherichia coli* to Prolonged Berberine Exposure**
Gokgoz N. B., Avci F. G., Yoneten K. K., Alaybeyoglu B., ÖZKIRIMLI ÖLMEZ E., SAYAR N. A., KAZAN D., SARIYAR AKBULUT B.
MICROBIAL DRUG RESISTANCE, vol.23, no.5, pp.531-544, 2017 (SCI-Expanded)
- XIX. **Organic solvent stable lipase from *Cryptococcus diffluens* D44 isolated from petroleum sludge**
Yilmaz D. E., Sayar N. A.
JOURNAL OF MOLECULAR CATALYSIS B-ENZYMATIC, vol.122, pp.72-79, 2015 (SCI-Expanded)
- XX. **Topological analysis of carbon flux during multi-stress adaptation in *Halomonas* sp AAD12**
Yoruk H. M., SAYAR N. A.
ELECTRONIC JOURNAL OF BIOTECHNOLOGY, vol.18, no.6, pp.480-485, 2015 (SCI-Expanded)

- XXI. **A sigmoidal model for biosorption of heavy metal cations from aqueous media**
Ozen R., SAYAR N. A., DURMAZ ŞAM S., SAYAR A. A.
MATHEMATICAL BIOSCIENCES, vol.265, pp.40-46, 2015 (SCI-Expanded)
- XXII. **Schizosaccharomyces pombe and its Ni(II)-insensitive mutant GA1 in Ni(II) uptake from aqueous solutions: a biodynamic model**
SAYAR N. A., DURMAZ ŞAM S., KAZAN D., SAYAR A. A.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.98, no.15, pp.6859-6869, 2014 (SCI-Expanded)
- XXIII. **Enzyme mixture production from Pycnoporus sanguineus DMSZ 3024 using a lignocellulosic waste, Hazelnut husk: A case study for laccase and cellulase**
PİNAR O., Kochan B., SAYAR N. A., Karaos-Manoglu K., KAZAN D.
NEW BIOTECHNOLOGY, vol.31, 2014 (SCI-Expanded)
- XXIV. **Lipase Catalyzed Esterification Reactions-A Kinetic Model**
KULA C., SAYAR N. A.
NEW BIOTECHNOLOGY, vol.31, 2014 (SCI-Expanded)
- XXV. **Screening of Lipase Production Among Different Microorganisms**
Yilmaz D. E., Yalcin H. T., SAYAR N. A.
NEW BIOTECHNOLOGY, vol.31, 2014 (SCI-Expanded)
- XXVI. **Assessment of Berberine as a Multi-target Antimicrobial: A Multi-omics Study for Drug Discovery and Repositioning**
Karaosmanoglu K., SAYAR N. A., KURNAZ I., SARIYAR AKBULUT B.
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.18, no.1, pp.42-53, 2014 (SCI-Expanded)
- XXVII. **Biosorption of Ni (II) by Schizosaccharomyces pombe: kinetic and thermodynamic studies**
DURMAZ ŞAM S., Sayar N. A., Topal-Sarikaya A., SAYAR A. A.
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.34, no.8, pp.997-1005, 2011 (SCI-Expanded)
- XXVIII. **Modelling and simulation of a transketolase mediated reaction: Sensitivity analysis of kinetic parameters**
Sayar N. A., Chen B. H., Lye G. J., Woodley J. M.
BIOCHEMICAL ENGINEERING JOURNAL, vol.47, pp.1-9, 2009 (SCI-Expanded)
- XXIX. **Process modelling and simulation of a transketolase mediated reaction: Analysis of alternative modes of operation**
Sayar N. A., Chen B. H., Lye G. J., Woodley J. M.
BIOCHEMICAL ENGINEERING JOURNAL, vol.47, pp.10-18, 2009 (SCI-Expanded)
- XXX. **Extraction of Co(II) and Ni(II) from concentrated HCl solutions using Alamine 336**
Sayar N. A., Filiz M., Sayar A. A.
HYDROMETALLURGY, vol.96, pp.148-153, 2009 (SCI-Expanded)
- XXXI. **Simulation- and optimisation-oriented modelling considerations for the extraction of Ni(II) from its acidic aqueous chloride solutions into Alamine 336-m-xylene systems**
Sayar N. A., Sayar A. A., Filiz M.
HYDROMETALLURGY, vol.95, pp.280-284, 2009 (SCI-Expanded)
- XXXII. **Extraction of Zn(II) from aqueous hydrochloric acid solutions into Alamine 336-m-xylene systems. Modeling considerations to predict optimum operational conditions**
Sayar N. A., Filiz M., Sayar A. A.
HYDROMETALLURGY, vol.86, pp.27-36, 2007 (SCI-Expanded)
- XXXIII. **Reaction modelling and simulation to assess the integrated use of transketolase and omega-transaminase for the synthesis of an aminotriol**
Chen B. H., Sayar A., Kaulmann U., Dalby P. A., Ward J. M., Woodley J. M.
BIOCATALYSIS AND BIOTRANSFORMATION, vol.24, no.6, pp.449-457, 2006 (SCI-Expanded)
- XXXIV. **Extraction of cobalt(II) from aqueous hydrochloric acid solutions into alamine 336-m-xylene mixtures**
Filiz M., Sayar N. A., Sayar A.
HYDROMETALLURGY, vol.81, pp.167-173, 2006 (SCI-Expanded)

Articles Published in Other Journals

- I. **Biosorption of Co(II) by Schizosaccharomyces pombe: Kinetic and thermodynamic studies for process design.**

SAYAR A. A., SAYAR N. A., DURMAZ ŞAM S., ODABAŞI G.

Journal of Bioprocess and Biotechniques, 2013 (Peer-Reviewed Journal)

Books

- I. **Antibiyotik Üretimi**

Avci F. G., Sayar N. A., Sariyar Akbulut B.

in: Fermente Ürünler Teknolojisi ve Mikrobiyolojisi, Erkmen, Osman; Erten, Hüseyin, Sağlam, Hidayet, Editor, Nobel Akademik Yayıncılık, Ankara, pp.721-738, 2020

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Propagation of Parametric Uncertainty in a Conceptually Designed Bioethanol Production Process**
Yıldız D. Z., SAYAR N. A.
The ESCAPE 30 European Symposium on Computer Aided Process Engineering, Milan, Italy, 31 August - 02 September 2020, vol.48, pp.631-636, (Full Text)
- II. **Submerged fermentation of hazelnut husk via Pycnoporus sanguineus DMSZ 3024 for enzyme production**
Yılmaz Serçinoğlu Z., Sayar N. A.
ECOMB2019, Trabzon, Turkey, 19 - 21 September 2019, (Summary Text)
- III. **Comparison of two medium optimization strategies: multi-objective pareto and global optimization for production of lignocellulolytic enzymes**
YILMAZ SERÇİNOĞLU Z., SAYAR N. A.
ECOMB2019, Trabzon, Turkey, 19 - 21 September 2019, (Full Text)
- IV. **Manually modified design of experiments for early biocatalyst evaluation–lipase-catalysed fatty acid methyl ester production**
KULA C., SAYAR N. A.
18th European Congress on Biotechnology, 1 - 04 July 2018, vol.44, pp.120-121, (Summary Text)
- V. **Analytical approach to understanding the interferences of compounds to lignocellulolytic enzyme activity assays**
YILMAZ Z., SAYAR N. A.
9th International Congress on Biocatalysis, 26 - 30 August 2018, (Summary Text)
- VI. **Laccase production from hazelnut husk via submerged cultivation of white rot fungi**
YILMAZ Z., SAYAR N. A.
9th International Congress on Biocatalysis, 26 - 30 August 2018, (Summary Text)
- VII. **LIGNOCELLULOTIC ENZYME PRODUCTION FROM HAZELNUT HUSK VIA MULTI-STEP CATALYSIS OF WHITE-ROT FUNGI**
Yılmaz Serçinoğlu Z., Sayar N. A.
4th Multistep Enzyme Catalyzed Processes Congress (MECP18), Nord-Trøndelag, Norway, 19 - 22 March 2018, (Summary Text)
- VIII. **Beyaz Çürükçül Fungus Katalizörlüğünde Fındık Çotanağı Kullanarak Lignoselülitik Enzim Üretimi**
YILMAZ Z., SAYAR N. A.
19. Uluslararası Katılımlı Ulusal Biyoteknoloji Kongresi, Eskişehir, Turkey, 1 - 03 December 2017, (Summary Text)
- IX. **Growth Medium Optimization of Cryptococcus albidus D24 lipase by statistical design of experiments**
URAS A., PİNAR O., SAYAR N. A., KAZAN D., SAYAR A. A.

42nd FEBS Congress, Kudus, Indonesia, 10 - 14 September 2017, (Summary Text)

- X. **Growth medium optimization of *Cryptococcus albidus* D24 lipase by statistical design of experiments**
Uras A., Pinar O., Sayar N. A., Kazan D., Sayar A. A.
42nd Congress of the Federation-of-European-Biochemical-Societies (FEBS) on From Molecules to Cells and Back, Jerusalem, Israel, 10 - 14 September 2017, vol.284, pp.376, (Summary Text)
- XI. **Production of laccase and cellulases by *Pycnoporus sanguineus* (dmsz 3024) using hazelnut husk**
Yılmaz Serçinoğlu Z., Sayar N. A., Kazan D.
FEMS 2017 - 7th Congress of European Microbiologists (FEMS), Valencia, Spain, 9 - 13 July 2017, (Summary Text)
- XII. **PRODUCTION OF LACCASE AND CELLULASES BY *Pycnoporus sanguineus* USING HAZELNUT HUSK**
YILMAZ Z., SAYAR N. A., KAZAN D.
FEMS - 7th Congress of European Microbiologists, 9 - 13 July 2017, (Summary Text)
- XIII. **Immobilization of *Cryptococcus albidus* D24 lipase for enzymatic esterification**
Uras A., Sayar N. A., Kazan D., Sayar A. A.
41st FEBS Congress on Molecular and Systems Biology for a Better Life, Kusadasi, Turkey, 3 - 08 September 2016, vol.283, pp.224-225, (Summary Text)
- XIV. **Biodiesel production from waste cooking oil via optimised transesterification by a locally sourced lipase**
KULA C., SAYAR N. A.
Challenges in Building a Sustainable Biobased Economy, EcoBio Conference 2016, 6 - 09 March 2016, (Summary Text)
- XV. **The plant derived alkaloid roemerin is involved in the modulation of motility in *E coli***
AYYILDIZ D., AVCI F. G., ARĞA K. Y., BÜDEYRİ GÖKGÖZ N., SAYAR N. A., KAZAN D., WOZNY K., BRÜGGER B., SARIYAR AKBULUT B.
BIOPHYSICAL SOCIETY 60TH ANNUAL MEETING, 27 February - 02 March 2016
- XVI. ***Cryptococcus diffluens* D44 lipase for biodiesel production from waste cooking oil via optimized transesterification**
KULA C., SAYAR N. A.
BEC 2015 VII. Bioengineering Congress, 19 - 21 November 2015, (Summary Text)
- XVII. **Optimization of process parameters for enzymatic hydrolysis of hazelnut husk**
YILMAZ SERÇİNOĞLU Z., PİNAR O., SAYAR N. A., KAZAN D.
BEC 2015 VII. Bioengineering Congress, İzmir, Turkey, 19 - 21 November 2015, (Summary Text)
- XVIII. **Optimization of process parameters for enzymatic hydrolysis of hazelnut husk**
YILMAZ Z., PİNAR O., SAYAR N. A., KAZAN D.
7th International Bioengineering Congress, 19 - 21 November 2015, (Summary Text)
- XIX. **Optimization of process parameters for enzymatic hydrolysis of hazelnut husk**
YILMAZ Z., PİNAR O., SAYAR N. A., KAZAN D.
VIIth International Bioengineering Congress (BEC 2015), İzmir, Turkey, 19 - 21 November 2015, (Summary Text)
- XX. **Lipase Catalyzed Esterification Reactions–A Kinetic Model**
KULA C., SAYAR N. A.
16th EUROPEAN CONGRESS ON BIOTECHNOLOGY, 13 - 16 July 2014, (Summary Text)
- XXI. **Enzyme mixture production from *Pycnoporus sanguineus* DMSZ 3024 using a lignocellulosic waste, Hazelnut husk: A case study for laccase and cellulase**
PİNAR O., KOÇHAN B., SAYAR N. A., KARAOSMANOĞLU K., KAZAN D.
16th European Congress on Biotechnology, 13 - 16 July 2014, (Summary Text)
- XXII. **Computer based synthetic metabolic pathway construction by using biological databases**
YILMAZ Z., ZORLUĞOLU G., SARIYAR AKBULUT B., SAYAR N. A.
EMBL-EBI/Wellcome Trust Summer School in Bioinformatics, Cambridge, Canada, 23 - 27 June 2014, (Summary Text)
- XXIII. **Characterization of Lipase Enzyme and Catalysed Esterification Reaction as a Model System**
KULA C., Yılmaz D. E., YALÇIN H. T., SAYAR N. A.
Enzymes for Biocatalysis, İstanbul, Turkey, 3 - 05 June 2014, (Summary Text)

- XXIV. **Characterization of Lipase Enzyme and Catalyzed Esterification Reaction as a Model System**
KULA C., Yılmaz d. e., YALÇIN H. T., SAYAR N. A.
ENZYMES FOR BIOCATALYSIS, 3 - 05 June 2014, (Summary Text)
- XXV. **Hydrolysis of Hazelnut Husk by Using Commercial Enzymes for the Production of Fermentable Sugar**
KARAOŞMANOĞLU K., PİNAR O., SAYAR N. A., KAZAN D.
VIth International Bioengineering Congress (IBEC 2013), İzmir, Turkey, 12 - 15 November 2013, (Summary Text)
- XXVI. **Mathematical Modelling of Ni²⁺ biosorption by Schizosaccharomyces pombe using Universal Sigmoid Approach**
Özen R., DURMAZ ŞAM S., SAYAR N. A., SAYAR A. A.
4th World Congress on Biotechnology, Raleigh, United States Of America, 23 - 25 September 2013, (Summary Text)
- XXVII. **Developing robust and tractable in silico procedures for the discovery and assessment of novel pathways for synthetic biology**
SAYAR N. A., Soyer O.
SB 5.0 Fifth International Meeting on Synthetic Biology, San Fransisko, United States Of America, 15 - 17 June 2011, (Summary Text)
- XXVIII. **A hybrid approach to bioreaction kinetic parameter estimation**
Chen B. H., SAYAR N. A., Woodley J.
19th International Symposium on Chemical Reaction Engineering, Potsdam, Germany, 3 - 06 September 2006, (Summary Text)
- XXIX. **Biocatalytic process evaluation using microscale processing techniques and process modelling**
Chen B. H., Micheletti M., SAYAR N. A., Dalby P., Baganz F., Lye G., Woodley J.
6th European Symposium on Biochemical Engineering Science, Salzburg, Austria, 27 - 30 August 2006, (Summary Text)
- XXX. **Transketolase mediated carbon carbon bond formation**
Chen B. H., SAYAR N. A., Micheletti M., Woodley J.
Industrial Biotransformations, Barselona, Spain, 4 - 05 May 2006, (Summary Text)
- XXXI. **Reaction modelling and simulation to assess the integrated use of transketolase and transaminase for the synthesis of an aminotriol**
Chen B. H., SAYAR N. A., Kaulmann U., Dalby P., Ward J., Woodley J.
Multistep Enzyme Catalyzed Processes, Graz, Austria, 18 - 21 April 2006, (Summary Text)

Funded Projects

Sariyar Akbulut B., Sayar N. A., Özbek Sarica P., TÜBİTAK International Multi-Cooperation Project, Replacing food-competing feedstocks with Methanol, CO₂ and Methylamine for a Sustainable Bioeconomy, 2021 - 2024

Sariyar Akbulut B., Sayar N. A., Özbek Sarica P., Kazan D., TÜBİTAK International Bilateral Joint Cooperation Program Project, Rational design of *Corynebacterium glutamicum* for a microbial cell factory to synthesize L-DOPA and bioprocess development for L-DOPA production, 2021 - 2024

Sayar N. A., TUBİTAK Project, Kavramsal Olarak Tasarlanmış Bir Üretim Sürecinin Parametrik Belirsizlik Altında Simülasyon Deneyleri Kullanılarak Çok-Hedefli Çok-Parametrelili Optimizasyonu: Lignoselülozik Tarımsal Atıklardan Biyoetanol Üretimi, 2018 - 2021

Sayar N. A., Project Supported by Higher Education Institutions, Beyaz çürükçül fungus *Pycnoporous sanguineus* DSM 3024 ile fındık çotanağından lignoselüloolitik enzim üretiminin çok hedefli optimizasyonu, 2017 - 2020

Sayar N. A., Project Supported by Higher Education Institutions, Yeni nesil dizileme teknolojileri ile *Bacillus türlerinin* stres adaptasyonunun incelenmesi, 2017 - 2019

Sariyar Akbulut B., Sayar N. A., TUBİTAK Project, L-DOPA production in *Corynebacterium glutamicum* using a metabolic engineering approach, 2017 - 2018

Kula C., Sayar N. A., Project Supported by Higher Education Institutions, Lipazla katalizlenen bir esterifikasyon reaksiyonu Kinetik analizi proses tasarımı ve proses metriklerinin değerlendirilmesi, 2015 - 2018

Sarıyar Akbulut B., Sayar N. A., Project Supported by Higher Education Institutions, Determination of intracellular targets of different alkaloids with antimicrobial properties by real-time polymerase chain reaction and microarray technologies , 2014 - 2017

Sarıyar Akbulut B., Kazan D., Sayar N. A., TÜBİTAK International Bilateral Joint Cooperation Program Project, Systems Biology Approach for Integrative OMICs Data Analysis to Investigate the Action of Antimicrobial Agents, 2014 - 2017

Sayar N. A., Project Supported by Higher Education Institutions, Lipazla katalize edilmiş uygun izolatlar için ilaç aramaddeleri eldesi için transesterifikasyon tepkimelerinin araştırması Tepkime veriminin süreç metriği olarak tayini, 2013 - 2017

Sayar N. A., TUBITAK Project, Multi enzimatik kataliz reaksiyonları için universal model geliştirilmesi Lignoselülozik biyokütlenin multi enzimatik hidrolizinin modellenmesi, 2014 - 2016

Peer Reviews in Scientific Publications

BIOCHEMICAL ENGINEERING JOURNAL, Journal Indexed in SCI-E, March 2022

INDUSTRIAL CROPS AND PRODUCTS, Journal Indexed in SCI-E, May 2018

Scientific Project Refereeing

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, May 2023

KOSGEB, January 2019

Metrics

Publication: 67

Citation (WoS): 329

Citation (Scopus): 375

H-Index (WoS): 11

H-Index (Scopus): 12

Invited Talks

OMICS, Conference, İstanbul Üniversitesi, Turkey, July 2013

Non Academic Experience

Marmara Üniversitesi Nihad Sayar Eğitim Vakfı, Yönetim Kurulu Üyesi (Özel Sektör)