

Asst. Prof. Selmihan ŞAHİN

Personal Information

Office Phone: [+90 246 211 4340](tel:+902462114340)

Email: selmihansahin@sdu.edu.tr

Web: <https://avesis.sdu.edu.tr/selmihansahin>

Education Information

Doctorate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Kimya, Turkey 2013 - 2018

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Biyokimya, Turkey 2011 - 2013

Undergraduate, Ege University, Fen Fakültesi, Biyokimya, Turkey Continues

Dissertations

Doctorate, GLUKOZ-6-FOSFAT DEHİDROGENAZ ENZİMİNİN İMMOBİLİZASYONU İÇİN MANYETİK NANOPARTİKÜLLERİN HAZIRLANMASI, KARAKTERİZASYONU VE OPTİMİZASYONU, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Kimya, 2018

Postgraduate, Trichoderma ouroviride'dan SELÜLAZ ENZİMİNİN SAFLAŞTIRILMASI VE KARAKTERİZASYONU, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Kimya, 2013

Research Areas

Chemistry, Biochemistry, Biotransformations, Fermentation, Microbiological Chemistry, Natural Sciences

Academic Titles / Tasks

Research Assistant, Suleyman Demirel University, Fen Edebiyat Fakültesi, Kimya, 2011 - Continues

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Investigation of binding interaction behavior between antiemetic drugs and Trypsin by spectroscopy and molecular docking**
ŞAHİN S., Calapoglu F., YAZICI S. Ö. , ÖZMEN İ.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.258, 2021 (Journal Indexed in SCI)
- II. **Immobilization of pectinase on Zr-treated pumice for fruit juice industry**
ŞAHİN S., ÖZMEN İ.
JOURNAL OF FOOD PROCESSING AND PRESERVATION, vol.44, no.8, 2020 (Journal Indexed in SCI)
- III. **Optimization of fermentation parameters for high-activity inulinase production and purification from Rhizopus oryzae by Plackett-Burman and Box-Behnken**
YAZICI S. Ö. , ŞAHİN S., BIYIK H. H. , Geroglu Y., ÖZMEN İ.
JOURNAL OF FOOD SCIENCE AND TECHNOLOGY-MYSORE, 2020 (Journal Indexed in SCI)
- IV. **Covalent immobilization of trypsin on polyvinyl alcohol-coated magnetic nanoparticles activated**

with glutaraldehyde

ŞAHİN S., ÖZMEN İ.

JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS, vol.184, 2020 (Journal Indexed in SCI)

- V. **Development of Voltammetric Glucose-6-phosphate Biosensors Based on the Immobilization of Glucose-6-phosphate Dehydrogenase on Polypyrrole- and Chitosan-Coated Fe₃O₄ Nanoparticles/Polypyrrole Nanocomposite Films**
ŞAHİN S., ÖZMEN İ., Bastemur G. Y. , Ozkorucuklu S. P.
APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, vol.188, no.4, pp.1145-1157, 2019 (Journal Indexed in SCI)
- VI. **Stability evaluation of 6-phosphogluconate dehydrogenase immobilized on amino-functionalized magnetic nanoparticles**
ŞAHİN S.
PREPARATIVE BIOCHEMISTRY & BIOTECHNOLOGY, vol.49, no.6, pp.590-596, 2019 (Journal Indexed in SCI)
- VII. **Pyrene hydrogel for promoting direct bioelectrochemistry: ATP-independent electroenzymatic reduction of N-2**
Hickey D. P. , LİM K., CAI R., Patterson A. R. , YUAN M., Sahin S., ABDELLAOUI S., Minter S. D.
CHEMICAL SCIENCE, vol.9, no.23, pp.5172-5177, 2018 (Journal Indexed in SCI)
- VIII. **Creating a Low-Potential Redox Polymer for Efficient Electroenzymatic CO₂ Reduction**
Yuan M., Sahin S., Cai R., Abdellaoui S., Hickey D. P. , Minter S. D. , Milton R. D.
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION, vol.57, no.22, pp.6582-6586, 2018 (Journal Indexed in SCI)
- IX. **Molybdenum-Dependent Formate Dehydrogenase for Formate Bioelectrocatalysis in a Formate/O-2 Enzymatic Fuel Cell**
Sahin S., CAI R., Milton R. D. , ABDELLAOUI S., Macazo F. C. , Minter S. D.
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.165, no.3, 2018 (Journal Indexed in SCI)
- X. **The In Vivo Potential-Regulated Protective Protein of Nitrogenase in Azotobacter vinelandii Supports Aerobic Bioelectrochemical Dinitrogen Reduction In Vitro**
MILTON R. D. , CAI R., Sahin S., ABDELLAOUI S., ALKOTAINI B., LEECH D., MINTEER S. D.
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol.139, no.26, pp.9044-9052, 2017 (Journal Indexed in SCI)
- XI. **Immobilization and characterization of human carbonic anhydrase I on amine functionalized magnetic nanoparticles**
Al-Dhrub A. H. A. , ŞAHİN S., ÖZMEN İ., Tunca E., Bulbul M.
PROCESS BIOCHEMISTRY, vol.57, pp.95-104, 2017 (Journal Indexed in SCI)
- XII. **Determination of optimum conditions for glucose-6-phosphate dehydrogenase immobilization on chitosan-coated magnetic nanoparticles and its characterization**
ŞAHİN S., ÖZMEN İ.
Journal of Molecular Catalysis B: Enzymatic, vol.133, 2016 (Journal Indexed in SCI Expanded)
- XIII. **Industrial Applications of Endoglucanase Obtained from Novel and Native Trichoderma atroviride**
ŞAHİN S., ÖZMEN İ., Biyik H.
CHEMICAL AND BIOCHEMICAL ENGINEERING QUARTERLY, vol.30, no.2, pp.265-278, 2016 (Journal Indexed in SCI)
- XIV. **Purification, immobilization, and characterization of protease from local Bacillus subtilis M-11**
ŞAHİN S., ÖZMEN İ., KIR E.
ASIA-PACIFIC JOURNAL OF CHEMICAL ENGINEERING, vol.10, no.2, pp.241-247, 2015 (Journal Indexed in SCI)
- XV. **CHARACTERIZATION OF CMCASES OBTAINED FROM LOCAL ISOLATE Aspergillus tamari Redpep4 AND EFFECT METAL SALTS ON ITS ACTIVITY**
Demir S. N. , ŞAHİN S., ÖZMEN İ., BIYIK H. H.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.24, pp.2959-2968, 2015 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Didemnins Inhibit COVID-19 Main Protease (Mpro)**

ŞAHİN S., Calapoğlu F., ÖZMEN İ.

Biointerface Research in Applied Chemistry, vol.11, no.1, pp.8204-8209, 2020 (Refereed Journals of Other Institutions)

II. PRODUCTION OF PROTEASE FROM BACILLUS SUBTILIS UNDER SSF AND EFFECT OF ORGANIC SOLVENTS ON LYOPHILIZED PROTEASE PREPARATIONS

ŞAHİN S., Demir y., ÖZMEN İ.

International Journal of Chemistry Research, vol.4, no.2, pp.1-6, 2020 (Refereed Journals of Other Institutions)

III. Horseradish Peroksidaz Enziminin TiO₂-COOH Nanopartiküller Üzerine İmmobilizasyon Koşullarının Box-Behnken Metodu ile Optimize Edilmesi

ŞAHİN S.

Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.23, pp.904-916, 2019 (Other Refereed National Journals)

IV. Antimicrobial and Biocompatible Bacterial Cellulose as Wound Dressing

Poyrazoğlu Çoban E., ŞAHİN S., BIYIK H. H. , ÖZMEN İ., ÜNSAL H., BENGÜL E.

TRANSYLVANIAN REVIEW, vol.25, no.22, pp.5459-5467, 2017 (Refereed Journals of Other Institutions)

V. Purification and Characterization of Endo β 1 4 glucanase from Local Isolate Trichoderma ouroviride

ŞAHİN S., ÖZMEN İ., BIYIK H. H.

International Journal of Bioscience, Biochemistry and Bioinformatics, vol.3, no.2, pp.129-132, 2013 (Non-Refereed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Surface modification of TiO₂ for immobilization of enzyme

ŞAHİN S., ÖZMEN İ.

2nd International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2020), Turkey, 7 - 09 October 2020, pp.307

II. Evaluation the interaction of some chemicals with trypsin

ŞAHİN S.

3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), Ankara, Turkey, 19 - 20 March 2020, pp.429

III. IMMOBILIZATION OF PROTEASE ONTO Fe₃O₄@SiO₂-NH₂ NANOPARTICLES AND CHARACTERIZATION OF ITS BIOCHEMICAL PROPERTIES

ÇALIMLI r., ŞAHİN S., ÖZMEN İ.

3. ULUSLARARASI GAP MATEMATİK- MÜHENDİSLİK-FEN VE SAĞLIK BİLİMLERİ KONGRESİ, 29 November - 01 December 2019, pp.125

IV. EFFECT OF EXOGENOUS PROTEASE WITHOUT OR WITH CELLULASE AND PHYTASE ON GROWTH PERFORMANCE OF BROILER CHICKENS

ŞAHİN S., ÖZMEN İ., ÖZBEK YAZICI S.

2nd International Health Sciences and Life Congress, 24 - 27 April 2019

V. OPTIMIZATION OF PHYTASE PRODUCTION FROM *Aspergillus niger* HBF-97.

ÖZBEK YAZICI S., ÖZMEN İ., ŞAHİN S.

2nd International Health Sciences and Life Congress, 24 - 27 April 2019

VI. Designing electroenzymatic interface for CO₂ reduction

YUAN M., ŞAHİN S., CAI R., ABDELLOUİ S., HICKEY d., MİNTEER s., MİLTON R.

National Meeting of the American-Chemical-Society (ACS), 31 March - 04 April 2019

VII. Immobilization of Trypsin on PVA-Coated Magnetic Nanoparticles

ŞAHİN S., ÖZMEN İ.

2nd Eurasia Biochemical Approaches Technologies (EBAT) Congress, 26 - 29 October 2019

VIII. Immobilization of Bovine Serum Albumin on Pumice: Influence of Short Crosslinkers

ŞAHİN S.

1st EURASIA BIOCHEMICAL APPROACHES TECHNOLOGIES (EBAT) CONGRESS, 27 - 30 October 2018

- IX. **Immobilization of 6-Phosphogluconate Dehydrogenase on Magnetic Nanoparticles**
ŞAHİN S.
INTERNATIONAL CONGRESS ON THE WORLD OF TECHNOLOGY AND ADVANCED MATERIALS, 21 - 23 September 2018
- X. **Nitrogenase Electrochemistry for Ammonia Production**
CAI R., MİLTON R., ABDELLAOUI S., L DE LACEY A., PİTA M., ŞAHİN S., MİNTEER S.
223rd ECS meetings, United States Of America, 13 - 17 May 2018
- XI. **IMMOBILIZATION OF HUMAN CARBONIC ANHYDRASE I**
ALDHRUB A. H. A. , ŞAHİN S., ÖZMEN İ., TUNCA E., BÜLBÜL M.
1st International Health Sciences and Life Congress, 2 - 05 May 2018
- XII. **Elektrospinning Yöntemiyle Üretilen Gümüş Katkılanmış Kitosan Nanofiberlerin Bakteri Üzerindeki Etkisinin İncelenmesi**
ÇİÇEK BEZİR N., BOZKURT B., ÖZCAN B., ŞAHİN S., KIR E., EVCİN A., AKARCA G.
I. Uluslararası Bilimsel ve Mesleki Çalışmalar Kongresi, Nevşehir, Turkey, 5 - 08 October 2017
- XIII. **ELEKTROSPİNNİNG YÖNTEMİYLE ÜRETİLEN GÜMÜŞ KATKILANMIŞ KİTOSAN NANOFİBERLERİN BAKTERİ ÜZERİNDEKİ ETKİSİNİN İNCELENMESİ**
ÇİÇEK BEZİR N., Bozkurt B., Özcan B., ŞAHİN S., KIR E., EVCİN A., AKARCA G., ÖZMEN İ., Kayalı R.
I. International Scientific and Vocational Studies Congress, 5 - 08 October 2017
- XIV. **Preparation of Nanofiber membranes, characterization and using in separation process**
Özcan B., KIR E., ÇİÇEK BEZİR N., ŞAHİN S., ÖZMEN İ.
I. International Scientific and Vocational Studies Congress (BILMES 2017), 5 - 08 October 2017
- XV. **S Sahin I Ozmen G Yıldırım S Percin Ozkorucuklu Preparation of Polypyrrole based electrodes for Glucose 6 phosphate determination 3rd International Congress on Biosensors Oral presentation OP0107 5 7 October 2016 Ankara Turkey**
ŞAHİN S., ÖZMEN İ., yıldırım g., PERÇİN ÖZKORUCUKLU S.
3rd International Congress on Biosensors, Oral presentation (OP0107), 5-7 October 2016, Ankara-Turkey., 5 - 07 October 2016
- XVI. **Preparation of Polypyrrole Based Electrodes for Glucose 6 phosphate Determination**
ŞAHİN S., ÖZMEN İ., YILDIRIM G., PERÇİN ÖZKORUCUKLU S.
3rd International Congress on Biosensors, 5 - 07 October 2016
- XVII. **Development of Chitosan PVA Silver Membrane with Antimicrobial Activity**
SARDOHAN KÖSEOĞLU T., POYRAZOĞLU ÇOBAN E., KIR E., BIYIK H. H. , ŞAHİN S.
10. Aegean Analytical Chemistry Days, Canakkale, Turkey, 29 September - 02 October 2016
- XVIII. **ŞAHİN S ÖZMEN İ BIYIK H H INVESTIGATION OF INDUSTRIAL APPLICATIONS OF CELLULASE Skopje Macedonia**
ŞAHİN S., ÖZMEN İ., BIYIK H. H.
1st International Conference on Engineering and Natural Sciences, (ICENS-2015, 15 - 19 May 2015, pp.52
- XIX. **INVESTIGATION OF INDUSTRIAL APPLICATIONS OF CELLULASE**
ŞAHİN S., ÖZMEN İ., BIYIK H. H.
1st International Conference on Engineering and Natural Sciences, (ICENS-2015), Skopje, Macedonia, 15 - 19 May 2015, pp.52
- XX. **EFFECT OF NONIONIC AND ANIONIC SURFACTANTS ON ENDOGLUCANASE**
DEMİR S. n. , ŞAHİN S., ÖZMEN İ.
1st International Conference on Engineering and Natural Sciences(ICENS-2015), Skopje, Macedonia, 15 - 19 May 2015, pp.43
- XXI. **DETERMINATION OF CELLULASE PRODUCING THERMOPHILIC BACTERIA ISOLATES**
ŞAHİN S., ÖZMEN İ., BAŞBÜLBÜL G.
1st International Conference on Engineering and Natural Sciences, (ICENS-2015), Skopje, Macedonia, 15 - 19 May 2015

- XXII. **ŞAHİN S ÖZMEN İ BAŞBÜLBÜL G DETERMINATION OF CELLULASE PRODUCING THERMOPHILIC BACTERIA ISOLATES** Skopje Macedonia
ŞAHİN S., ÖZMEN İ., BAŞBÜLBÜL G.
1st International Conference on Engineering and Natural Sciences, (ICENS-2015), 15 - 19 May 2015, pp.53
- XXIII. **DEMİR S N ŞAHİN S ÖZMEN İ EFFECT OF NONIONIC AND ANIONIC SURFACTANTS ON ENDOGLUCANASE** Skopje Macedonia
saime nur d., ŞAHİN S., ÖZMEN İ.
1st International Conference on Engineering and Natural Sciences, (ICENS-2015), 15 - 19 May 2015, pp.43
- XXIV. **Production of endoglucanase from local isolate Aspergillus niger and its optimization under submerged fermentation**
ŞAHİN S., ÖZMEN İ.
4th International Conference on Novel Enzymes, Ghent, Belgium, 14 - 17 October 2014, pp.94
- XXV. **Evaluation of enzymatic hydrolysis of different lignocellulosic materials pretreated with NaOH and H₂SO₄**
ŞAHİN S., ÖZMEN İ.
4th International Conference on Novel Enzymes, 14 - 17 October 2014, pp.94
- XXVI. **Optimization of protease immobilization conditions** 4th International Conference on Novel Enzymes
ŞAHİN S., ÖZMEN İ.
4th International Conference on Novel Enzymes, Ghent, Belgium, 14 - 17 October 2014, pp.93
- XXVII. **Effect of endo β 1 4 glucanase obtained from local isolate Trichoderma aureoviride on denim garment**
ŞAHİN S., ÖZMEN İ.
4th International Conference on Novel Enzymes, 14 October - 17 June 2014, pp.93
- XXVIII. **Cellulase Production on Different Carbon Sources and Its Substrate Specificity** 123 June 4 6 2014 Istanbul TURKEY
DEMİR S. N. , ŞAHİN S., ÖZMEN İ.
2nd International Conference on Recycling and Reuse- (R&R, 2014), 4 - 06 June 2014
- XXIX. **Optimization of Protease Production under Solid State Fermentation**
ŞAHİN S., DEMİR S. N. , ÖZMEN İ.
2nd International Conference on Recycling and Reuse-(R&R2014), 4 - 06 June 2014, pp.125
- XXX. **Production of Protease under Submerged Fermentation**
ŞAHİN S., YEŞİM g., ÖZMEN İ.
2nd International Conference on Recycling and Reuse- (R&R, 2014), 4 - 06 June 2014, pp.127
- XXXI. **Effect of Some Metal Ions and Surfactants on Cellulase Obtained from Aspergillus niger**
DEMİR s. n. , ŞAHİN S., ÖZMEN İ.
2nd International Conference on Recycling and Reuse- (R&R, 2014), 4 - 06 June 2014, pp.89
- XXXII. **Biosurfactant Effect on Cellulase Activity**
ŞAHİN S., ÖZMEN İ.
International enzymes for Biocatalysis, 3 - 05 June 2014, pp.57
- XXXIII. **Çeşitli İyon ve Deterjanların Selüloz Aktivitesine Etkisinin İncelenmesi**
ŞAHİN S., ÖZMEN İ.
KROMOTOGRAFI 2013, Turkey, 19 June 2013 - 22 January 2014
- XXXIV. **Enzymatic Hydrolyzed of Pretreatment Sawdust with Purified Cellulase**
ŞAHİN S., ÖZMEN İ.
International Conference on Environmental Science and Technology (ICOEST'xx2013), 18 - 21 June 2013
- XXXV. **Purification and Determination of Optimal Values of Cellulase from Local Isolate Aspergillus niger**
Demir S. n. , ÖZMEN İ., ŞAHİN S.
International Conference on Environmental Science and Technology (ICOEST'xx2013), 18 - 21 June 2013, pp.657
- XXXVI. **Determination of Kinetic Properties of Endo β 1 4 Glucanase Obtained from Trichoderma ouroviride**
ŞAHİN S., ÖZMEN İ., DEMİR S. N.
International Conference on Environmental Science and Technology (ICOEST'xx2013), 18 - 21 June 2013

- XXXVII. **Yerel mikroorganizmalardan elde edilen biyoteknolojik ürünlerin Türkiye de ilk defa Isparta pomzasi kullanilarak saflastirilmesi ve peynir yapimi kagit atiklarinin degerlendirilmesi biyoetanol eldesi kot taslamada kullanimi**
ÖZMEN İ., ŞAHİN S., Demir S. N.
ISPARTEK 2013, Isparta, Turkey, 15 - 17 May 2013, pp.43
- XXXVIII. **Purification and Characterization of Endo-β-1,4-Glucanase from Local Isolate Trichoderma Ouroviride**
ŞAHİN S., ÖZMEN İ., BIYIK H. H.
2013 3rd International Conference on Bioscience, Biochemistry and Bioinformatics – ICBBB 2013., Roma, Italy, 24 - 25 February 2013, vol.3, pp.129-132
- XXXIX. **PURIFICATION OF ALKALINE PROTEASE FROM BACILLUS SUBTILIS AND ITS IMMOBILIZATION ON POLYSULPHONE MEMBRANE**
ŞAHİN S., KIR E., ÖZMEN İ.
3rd International Symposium on Sustainable Development,(ISSD-2012), 31 May - 01 June 2012

Supported Projects

ŞAHİN S., Project Supported by Other Official Institutions, Glukoz-6-fosfat dehidrogenaz enziminin immobilizasyonu için manyetik nanopartiküllerin hazırlanması, karakterizasyonu ve optimizasyonu, 2016 - 2018

Citations

Total Citations (WOS):70

h-index (WOS):5

Scholarships

2214-A Yurt Dışı Araştırma Burs Programı (Doktora öğrencileri için), TÜBİTAK, 2017 - 2017