

## **Doç. Dr. SEVGİ POLAT**

### **Kişisel Bilgiler**

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### **Uluslararası Araştırmacı ID'leri**

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Publons / Web Of Science ResearcherID: AAW-2449-2020

ScopusID: 57205248868

Yoksis Araştırmacı ID: 202985

### **Biyografi**

Sevgi received her BSc and MSc degrees in Chemical Engineering from Anadolu University. She got her Ph.D. degree in Chemical Engineering at the University of Marmara in 2018. Sevgi then continued to work as a postdoctoral fellow at the Delft University of Technology. She is currently an associate professor in the Department of Chemical Engineering at Marmara University. Her research focuses on chemical engineering separation processes, electrochemical separation, crystal engineering, thermal analysis, and experimental design.

### **Eğitim Bilgileri**

Post Doktora, Technische Universiteit Delft, Process & Energy Department, Hollanda 2021 - 2022

Doktora, Marmara Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (İngilizce) Anabilim Dalı, Türkiye 2014 - 2018

Yüksek Lisans, Anadolu Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilim Dalı, Türkiye 2011 - 2014

Lisans, Anadolu Üniversitesi, Mühendislik-Mimarlık Fakültesi, Kimya Mühendisliği Bölümü, Türkiye 2006 - 2011

### **Yaptığı Tezler**

Doktora, Investigation of Behaviours of Phase Changed Crystals in the Presence of Additives, Marmara Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (Dr), 2018

Yüksek Lisans, Farklı Atıkların TG-FTIR-MS ile Isıl Davranışlarının Belirlenmesi, Anadolu Üniversitesi, Fen Bilimleri Enstitüsü, 2014

### **Araştırma Alanları**

Kimya Mühendisliği ve Teknolojisi, Temel İşlemler ve Termodinamik, Mühendislik ve Teknoloji

### **Akademik Unvanlar / Görevler**

## Verdiği Dersler

Bitirme Projesi II, Lisans, 2019 - 2020

Enerji Teknolojisi, Stratejisi ve Ekonomisi, Lisans, 2019 - 2020

Basic Chemistry, Lisans, 2019 - 2020

Bitirme Projesi I, Lisans, 2019 - 2020

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Electrochemical cell design and performance evaluation of polyvinyl ferrocene/carbon nanotube electrodes for selective formate separation**  
Polat S., Kortlever R., Eral H. B.  
SEPARATION AND PURIFICATION TECHNOLOGY, cilt.324, ss.124554, 2023 (SCI-Expanded)
- II. **Optimization and continuous-flow operation of electrochemically mediated selective formate separation by polyvinyl ferrocene/graphene oxide electrodes**  
Polat S., Kortlever R., Eral H. B.  
CHEMICAL ENGINEERING JOURNAL, cilt.475, 2023 (SCI-Expanded)
- III. **Influence of Glycyl-L-Glutamic Acid Dipeptide on Calcium Pyrophosphate Dihydrate Crystallization**  
Polat S., An Q., Eral H. B.  
CHEMICAL ENGINEERING AND TECHNOLOGY, cilt.1, sa.1, ss.1-10, 2023 (SCI-Expanded)
- IV. **An Edible Humidity Indicator That Responds to Changes in Humidity Mechanically**  
Zhang M., Arunachalam A., Perrin H., Polat S., Groenewold J., Mendes E., Eral H. B.  
ACS APPLIED POLYMER MATERIALS, cilt.1, sa.1, ss.1-9, 2023 (SCI-Expanded)
- V. **Carbon monoxide separation: past, present and future**  
Ma X., Albertsma J., Gabriels D., Horst R., Polat S., Snoeks C., Kapteijn F., Eral H. B., Vermaas D. A., Mei B., et al.  
CHEMICAL SOCIETY REVIEWS, cilt.52, ss.3741-3777, 2023 (SCI-Expanded)
- VI. **Ultrasound-promoted preparation of polyvinyl ferrocene-based electrodes for selective formate separation: Experimental design and optimization**  
Polat S., Kortlever R., Eral H. B.  
ULTRASONICS SONOCHEMISTRY, cilt.89, 2022 (SCI-Expanded)
- VII. **Effect of hyaluronic acid on the struvite crystallization: A structural, morphological, and thermal analysis study**  
Polat S., Eral H. B.  
JOURNAL OF CRYSTAL GROWTH, cilt.592, ss.1-11, 2022 (SCI-Expanded)
- VIII. **Elucidating the role of hyaluronic acid in the structure and morphology of calcium oxalate crystals**  
Polat S., Eral H. B.  
ADVANCED POWDER TECHNOLOGY, cilt.32, sa.10, ss.3650-3659, 2021 (SCI-Expanded)
- IX. **Effect of L-alanyl-glycine dipeptide on calcium oxalate crystallization in artificial urine**  
Polat S., Eral H. B.  
JOURNAL OF CRYSTAL GROWTH, cilt.566, 2021 (SCI-Expanded)
- X. **Effect of Apium graveolens extract on the surface morphology and characteristics of calcium pyrophosphate crystals**  
Polat S., Sayan P.  
JOURNAL OF CRYSTAL GROWTH, cilt.562, 2021 (SCI-Expanded)
- XI. **Effects of Tryptophan on the Polymorphic Transformation of Calcium Carbonate: Central Composite Design, Characterization, Kinetics, and Thermodynamics**

- Polat S., Ozalp-Sendur T. N., Sayan P.  
ACTA CHIMICA SLOVENICA, cilt.68, sa.2, ss.414-425, 2021 (SCI-Expanded)
- XII. **Precipitation, characterization, and kinetic modeling of calcium carbonate prepared using sodium myristate**  
Polat S., Sayan P.  
CHEMICAL ENGINEERING COMMUNICATIONS, cilt.207, sa.11, ss.1579-1590, 2020 (SCI-Expanded)
- XIII. **Experimental investigations on the effects of asparagine and serine on the polymorphism of calcium carbonate**  
POLAT S.  
ADVANCED POWDER TECHNOLOGY, cilt.31, sa.10, ss.4282-4291, 2020 (SCI-Expanded)
- XIV. **Ultrasonic-assisted eggshell extract-mediated polymorphic transformation of calcium carbonate**  
Polat S., Sayan P.  
ULTRASONICS SONOCHEMISTRY, cilt.66, 2020 (SCI-Expanded)
- XV. **Assessment of the thermal pyrolysis characteristics and kinetic parameters of spent coffee waste: a TGA-MS study**  
Polat S., Sayan P.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, 2020 (SCI-Expanded)
- XVI. **Preparation, characterization and kinetic evaluation of struvite in various carboxylic acids**  
Polat S., Sayan P.  
JOURNAL OF CRYSTAL GROWTH, cilt.531, 2020 (SCI-Expanded)
- XVII. **Effects of Amino Acids on the Crystallization of Calcium Tartrate Tetrahydrate**  
POLAT S., Aytan-Goze E., SAYAN P.  
ACTA CHIMICA SLOVENICA, cilt.67, sa.3, ss.842-852, 2020 (SCI-Expanded)
- XVIII. **Application of response surface methodology with a Box-Behnken design for struvite precipitation**  
Polat S., Sayan P.  
ADVANCED POWDER TECHNOLOGY, cilt.30, sa.10, ss.2396-2407, 2019 (SCI-Expanded)
- XIX. **An in vitro evaluation of the effects of Urtica dioica and Fructus Urtica Piluliferae extracts on the crystallization of calcium oxalate**  
Polat S.  
JOURNAL OF CRYSTAL GROWTH, cilt.522, ss.92-102, 2019 (SCI-Expanded)
- XX. **Ultrasonic Irradiation during the Calcium Sulfate Hemihydrate to Dihydrate Transformation Process**  
Polat S., Sayan P.  
CHEMICAL ENGINEERING & TECHNOLOGY, cilt.42, sa.7, ss.1466-1474, 2019 (SCI-Expanded)
- XXI. **An experimental investigation and kinetic-modeling study of the phase transformation behavior of glycine in various carboxylic acids**  
Polat S., Sayan P.  
ASIA-PACIFIC JOURNAL OF CHEMICAL ENGINEERING, cilt.14, 2019 (SCI-Expanded)
- XXII. **Evaluation of the effects of sodium laurate on calcium carbonate precipitation: Characterization and optimization studies**  
POLAT S.  
JOURNAL OF CRYSTAL GROWTH, cilt.508, ss.8-18, 2019 (SCI-Expanded)
- XXIII. **Effect of ultrasonic irradiation on morphology and polymorphic transformation of glycine**  
Polat S., Sayan P.  
ULTRASONICS SONOCHEMISTRY, cilt.47, ss.17-28, 2018 (SCI-Expanded)
- XXIV. **Evaluation of solvent-mediated phase transformation of glycine using oleic acid: Morphology and characterization study**  
Polat S., Sayan P.  
CHINESE JOURNAL OF CHEMICAL ENGINEERING, cilt.26, ss.1829-1836, 2018 (SCI-Expanded)
- XXV. **The characterization and polymorphism of alpha-Glycine in the presence of butyric acid**  
Polat S., Sayan P.  
ADVANCED POWDER TECHNOLOGY, cilt.29, ss.1968-1976, 2018 (SCI-Expanded)

- XXVI. **Characteristics and Thermal Kinetics of Hydroxyapatite Crystals Doped with Tricarballylic Acid**  
Polat S., Sayan P.  
CHEMICAL ENGINEERING & TECHNOLOGY, cilt.41, sa.6, ss.1108-1117, 2018 (SCI-Expanded)
- XXVII. **Kinetic analysis and polymorphic phase transformation of glycine in the presence of lauric acid**  
Polat S., Sayan P.  
JOURNAL OF CRYSTAL GROWTH, cilt.481, ss.71-79, 2018 (SCI-Expanded)
- XXVIII. **Impacts of UV Radiation on the Polymorphic Transformation of Glycine to Glycine**  
Polat S., Sayan P.  
CRYSTAL RESEARCH AND TECHNOLOGY, cilt.53, 2018 (SCI-Expanded)
- XXIX. **Assessment of propionic acid adsorption performance on the phase transformation of calcium sulfate hemihydrate to dihydrate**  
Polat S., Sayan P.  
SEPARATION SCIENCE AND TECHNOLOGY, cilt.53, ss.1966-1978, 2018 (SCI-Expanded)
- XXX. **Determination of the Effects of Carboxylic Acids on Calcium Sulfate Dihydrate Crystallization**  
POLAT S., SAYAN P.  
CHEMICAL ENGINEERING & TECHNOLOGY, cilt.40, sa.7, ss.1354-1361, 2017 (SCI-Expanded)
- XXXI. **Characterization and Kinetics of Calcium Sulfate Dihydrate Crystallization in the Presence of Trimesic Acid**  
Polat S., Sayan P.  
ASIA-PACIFIC JOURNAL OF CHEMICAL ENGINEERING, cilt.12, sa.3, ss.391-399, 2017 (SCI-Expanded)
- XXXII. **Effects of tricarballylic acid on phase transformation of calcium sulfate hemihydrate to the dihydrate form**  
Polat S., Sayan P.  
CRYSTAL RESEARCH AND TECHNOLOGY, cilt.52, 2017 (SCI-Expanded)
- XXXIII. **Impact of glutamic acid on the transformation of calcium sulfate hemihydrate to dihydrate: Characterization, equilibrium, kinetics, and thermodynamics**  
Polat S., Sayan P.  
CHEMICAL ENGINEERING COMMUNICATIONS, cilt.204, ss.1318-1331, 2017 (SCI-Expanded)
- XXXIV. **Investigation of calcium sulfate dihydrate crystallization in the presence of glutamic acid in MSMR crystallizer**  
POLAT S., SAYAN P., SARGUT S.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, cilt.32, sa.4, ss.1121-1130, 2017 (SCI-Expanded)
- XXXV. **Thermal decomposition behavior of tobacco stem Part II: Kinetic analysis**  
Polat S., Apaydin-Varol E., Pütün A. E.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, cilt.38, sa.20, ss.3073-3080, 2016 (SCI-Expanded)
- XXXVI. **Thermal decomposition behavior of tobacco stem Part I: TGA-FTIR-MS analysis**  
Polat S., Apaydin-Varol E., Pütün A. E.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, cilt.38, sa.20, ss.3065-3072, 2016 (SCI-Expanded)
- XXXVII. **PYROLYSIS KINETICS AND THERMAL DECOMPOSITION BEHAVIOR OF POLYCARBONATE - a TGA-FTIR study**  
Apaydin-Varol E., Polat S., Pütün A. E.  
THERMAL SCIENCE, cilt.18, ss.833-842, 2014 (SCI-Expanded)

#### **Düger Dergilerde Yayınlanan Makaleler**

- I. **Thermal degradation of calcium lactate pentahydrate using TGA/FTIR/MS: thermal kinetic and thermodynamics studies**

- Polat S.  
INDIAN CHEMICAL ENGINEER, cilt.1, sa.1, 2021 (ESCI)
- II. **Süksinik Asit Varlığında Struvit Kristalizasyonunun İncelenmesi**  
Polat S., Görener N., Sayan P.  
Konya Journal of Engineering Sciences, cilt.9, ss.54-65, 2021 (Hakemli Dergi)
- III. **Effect of various metal ions on gypsum precipitation**  
Polat S., Sayan P.  
INDIAN CHEMICAL ENGINEER, cilt.63, sa.4, ss.363-373, 2021 (ESCI)
- IV. **Assessment of the effects of acetic, oxalic, and tricarballylic acids on struvite crystallization: characterisation and kinetic studies**  
Polat S., Görener N., Sayan P.  
Indian Chemical Engineer, cilt.63, sa.3, ss.324-337, 2021 (ESCI)
- V. **Polymorphic Phase Change of Calcium Carbonate with Glutamic Acid as an Additive**  
Polat S., Özalp T. N., Sayan P.  
Journal of the Turkish Chemical Society, Section A: Chemistry, cilt.8, sa.1, ss.117-124, 2021 (Scopus)
- VI. **In Vitro Study on the Influence of Proline on Struvite Crystals**  
Polat S., Sayan P.  
Hittite Journal of Science and Engineering, cilt.7, sa.4, ss.271-277, 2020 (Hakemli Dergi)
- VII. **Kalsiyum Karbonatın Polimorfik Faz Dönüşümünün Prolin Varlığında İncelenmesi**  
Polat S., Demiray B., Tekin B., Kardaş M.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, cilt.20, sa.5, ss.883-891, 2020 (Hakemli Dergi)
- VIII. **Box-Behnken Experimental Design for Zinc Borate Zn<sub>2</sub>B<sub>6</sub>O<sub>11</sub>·7H<sub>2</sub>O**  
Polat S., Sayan P.  
Journal of Boron, cilt.5, sa.3, ss.152-161, 2020 (Hakemli Dergi)
- IX. **Hidroksiapatit Kristalizasyonunun Pentanoik Asit Varlığında İncelenmesi**  
Sayan P., Polat S., Kara A.  
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, cilt.22, sa.2, ss.415-427, 2020 (Hakemli Dergi)
- X. **Effects of Mandelic and Propane-1,2,3-Tricarboxylic Acids on Calcium Oxalate Monohydrate Crystallization**  
Polat S., Sayan P.  
International Journal of Advances in Engineering and Pure Sciences, cilt.32, sa.1, ss.33-41, 2020 (Hakemli Dergi)
- XI. **Effect of avocado (*persea gratissima*) leaf extract on calcium oxalate crystallization**  
Polat S.  
ACTA Pharmaceutica Sciencia, cilt.58, sa.1, ss.35-48, 2020 (Scopus)
- XII. **Effects of polyelectrolytes on the hardness of borax decahydrate crystals**  
Polat S., Sayan P.  
Bor Dergisi, cilt.4, sa.4, ss.172-179, 2019 (Hakemli Dergi)
- XIII. **THE PHYSICOCHEMICAL CHARACTERIZATION AND KINETIC PARAMETER ASSESSMENT OF HYDROXYAPATITE CRYSTALS**  
Polat S.  
Eskişehir Technical University Journal of Science and Technology A - Applied Sciences and Engineering, cilt.20, sa.4, ss.393-405, 2019 (Hakemli Dergi)
- XIV. **Thermal Characteristics and Kinetic Parameters Assessment of Chitosan**  
Polat S., Sayan P.  
Eurasian Journal of Biological and Chemical Sciences (Eurasian J. Bio. Chem. Sci.), cilt.1, sa.2, ss.42-47, 2018 (Hakemli Dergi)
- XV. **Growth Kinetics of Calcium Sulfate Dihydrate in the Presence of Oxalic Acid**  
Polat S., Sargut S., Sayan P.  
Journal of Turkish Chemical Society B Chemical Engineering, cilt.1, ss.39-48, 2017 (Hakemli Dergi)
- XVI. **TÜTÜN TARLA ATIĞININ TGA FTIR MS İLE TERMAL DAVRANIŞININ BELİRLENMESİ**  
Polat S., Pütün A. E.

Anadolu University Journal of Science and Technology-A Applied Sciences and Engineering, cilt.16, ss.211, 2015  
(Hakemli Dergi)

XVII. **TGA FTIR study on the thermal decomposition of tea waste**

Polat S., Varol E., Pütün A. E.

Journal of Selçuk University Natural and Applied Science, cilt.1, sa.1, ss.420-430, 2013 (Hakemli Dergi)

XVIII. **Biosorption of Cu (II) from aqueous solution by grape waste Equilibrium Kinetics and Thermodynamics**

Polat S., Pütün E., Kılıç M., Pütün A. E.

Journal of Selçuk University Natural and Applied Science, cilt.1, sa.1, ss.108-119, 2013 (Hakemli Dergi)

## Kitap & Kitap Bölümleri

I. **Effects Of Amino Acids On Calcium Carbonate Crystallization**

SAYAN P., POLAT S., ÖZALP-ŞENDUR T. N.

LAP LAMBERT Academic Publishing, 2021

II. **Evaluation of Grape Wine Industry Waste as Low Cost Biosorbent: Isotherms, Kinetics and Thermodynamics Study**

Polat S., Pütün A. E., Pütün E.

LAP LAMBERT Academic Publishing, Saarbrücken, 2016

III. **Farklı Atıkların TGA-FTIR-MS ile Isıl Davranışlarının Belirlenmesi**

Polat S., Pütün A. E.

LAP LAMBERT Academic Publishing, Saarbrücken, 2016

## Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

I. **The Role of Ultrasound In Controlling The Glycine Polymorphs**

POLAT S., ERAL H. B.

14th International Conference on Crystal Growth of Organic Materials (CGOM14), Belçika, 11 - 14 Eylül 2022, ss.109

II. **Influence of Aspartic Acid and Glutamic Acid Additives on Calcium Pyrophosphate Crystallization**

POLAT S., AN Q., ERAL H. B.

BIWIC 2022 - 27th International Workshop on Industrial Crystallization, Espoo, Finlandiya, 31 Ağustos - 02 Eylül 2022, ss.136-141

III. **Electrochemical cell design and performance evaluation of polyvinyl ferrocene/carbon nanotube electrodes for selective formate separation**

POLAT S., KORTLEVER R., ERAL H. B.

19th Asian Pacific Confederation of Chemical Engineering Congress (APCChE 2022), Malezya, 9 - 12 Ağustos 2022, ss.123-130

IV. **Influence of osteopontin on calcium oxalate crystallization in artificial urine**

POLAT S., ERAL H. B.

19th Asian Pacific Confederation of Chemical Engineering Congress (APCChE 2022), Malezya, 9 - 12 Ağustos 2022

V. **Fabrication of calcium sulfate hemihydrate whisker under hydrothermal condition**

POLAT S., ERAL H. B.

ECCG7 – Seventh European Conference on Crystal Growth, Paris, Fransa, 25 - 27 Temmuz 2022

VI. **Experimental investigation of the effect of hyaluronic acid on calcium pyrophosphate crystallization**

POLAT S., ERAL H. B.

ECCG7 – Seventh European Conference on Crystal Growth, Paris, Fransa, 25 - 27 Temmuz 2022

VII. **Polyvinyl ferrocene/ carbon nanotube electrode performance for electrochemical formate separation in a redox flow cell**

- POLAT S., KORTLEVER R., ERAL H. B.  
5th ECCM Conference, Hollanda, 24 Haziran 2022
- VIII. **Elucidating the effect of hyaluronic acid on the structure and morphology of calcium oxalate crystals**  
POLAT S., ERAL H. B.  
Dutch Association for Crystal Growth (DACG) Spring Meeting, Amsterdam, Hollanda, 25 Mayıs 2022
- IX. **Selective Formate Separation Using Redox-Active Polyvinyl Ferrocene-Functionalized Electrodes**  
POLAT S., KORTLEVER R., ERAL H. B.  
Netherlands Process Technology Symposium (NPS17), Delft, Hollanda, 4 - 05 Nisan 2022
- X. **Optimized Preparation of Polyvinyl Ferrocene-Based Electrodes for Selective Ion Separation**  
POLAT S., KORTLEVER R., ERAL H. B.  
e-Refinery Symposium, Hollanda, 14 - 15 Mart 2022
- XI. **Polyvinyl Ferrocene Based Electrodes for Selective Formate Separation**  
POLAT S., KORTLEVER R., ERAL H. B.  
NWO CHAINS 2021, Hollanda, 7 - 08 Aralık 2021
- XII. **Optimization of Ultrasound-Assisted Preparation of Polyvinyl Ferrocene Based Electrodes for Selective Separation**  
POLAT S., LEONG Z., KORTLEVER R., ERAL H. B.  
ECCM Research Day 2021, Hollanda, 11 Kasım 2021
- XIII. **Süksinik Asit Varlığında Struvit Kristalizasyonunun İncelenmesi**  
Görener N., Polat S., Sayan P.  
14. Ulusal Kimya Mühendisliği Kongresi (UKMK2020), Konya, Türkiye, 10 - 12 Haziran 2021, ss.151-0
- XIV. **Kalsiyum Karbonatın Yapısal ve Morfolojik Özelliklerinin Ala-Gly ile Kontrol Edilmesi**  
Sayan P., Polat S., Civil M., İlerigiden S.  
14. Ulusal Kimya Mühendisliği Kongresi (UKMK2020), Konya, Türkiye, 10 - 12 Haziran 2021
- XV. **Glutamik Asitin Kalsiyum Oksalat Kristalizasyonuna Etkisinin İncelenmesi**  
Polat S.  
14. Ulusal Kimya Mühendisliği Kongresi (UKMK2020), Konya, Türkiye, 10 - 12 Haziran 2021, ss.29-0
- XVI. **Effects of Hyaluronic Acid on the Structure and Morphology of Calcium Oxalate Crystals**  
POLAT S., ERAL H. B.  
5th Asian Crystallization Technology Symposium (ACTS-2021), Pattaya, Tayland, 26 - 28 Mayıs 2021
- XVII. **Elucidating the Role of Glycine and Alanine in Calcium Oxalate Crystallization**  
POLAT S., ERAL H. B.  
5th Asian Crystallization Technology Symposium (ACTS-2021), Pattaya, Tayland, 26 - 28 Mayıs 2021
- XVIII. **Optimization of Calcium Carbonate Crystallization in the presence of Threonine Using Response Surface Methodology**  
ÖZALP T. N., POLAT S., SAYAN P.  
International Eurasian Conference on Biotechnology and Biochemistry (BioTechBioChem 2020), Ankara, Türkiye, 16 - 18 Aralık 2020, ss.47
- XIX. **Kinetics Analysis for Calcium Carbonate Prepared using Threonine**  
ÖZALP T. N., POLAT S., SAYAN P.  
International Eurasian Conference on Biotechnology and Biochemistry (BioTechBioChem 2020), Ankara, Türkiye, 16 - 18 Aralık 2020, ss.97
- XX. **Glutamik Asit Varlığında Kalsiyum Karbonat Kristalizasyonunun İncelenmesi**  
Özalp T. N., Polat S., Sayan P.  
32. Online Ulusal Kimya Kongresi, Eskişehir, Türkiye, 17 - 19 Eylül 2020
- XXI. **Kalsiyum Karbonatın Polimorfik Faz Dönüşümünün Ultrasonik Etki Varlığında İncelenmesi**  
ÖZALP T. N., POLAT S., SAYAN P.  
32. Online Ulusal Kimya Kongresi, Türkiye, 17 - 19 Eylül 2020
- XXII. **Influence of Serine and Proline on the Crystallization of Paracetamol**  
POLAT S., SAYAN P.  
3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), Ankara,

Türkiye, 19 - 20 Mart 2020, ss.45

- XXIII. **Effect of Proline on the Polymorphic Transformation Behavior of Calcium Carbonate**  
POLAT S.  
3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), Ankara,  
Türkiye, 19 - 20 Mart 2020, ss.117
- XXIV. **A TGA/MS Study on Pyrolysis Behavior and Kinetics Assessment of Walnut Shell**  
Polat S., Sayan P.  
5th International Conference On Advances in Mechanical Engineering: ICAME2019, İstanbul, Türkiye, 17 - 19 Aralık  
2019
- XXV. **Investigation of Paracetamol Crystallization in the Presence of Alanine and Tryptophan**  
Polat S., Sayan P.  
4 th Porous and Powder Materials Symposium and Exhibitions(PPM2019), Muğla, Türkiye, 9 - 11 Ekim 2019, ss.45
- XXVI. **The Influence of Curcumin on Calcium OxalateCrystallization in Vitro**  
Polat S., Sayan P.  
4 th International Porous and Powder Materials Symposium and Exhibitions (PPM2019), Muğla, Türkiye, 9 - 11  
Ekim 2019, ss.192-196
- XXVII. **Determination of The Effect of Proline onStruvite Crystallization**  
Polat S., Sayan P.  
4 th International Porous and Powder Materials Symposium and Exhibitions (PPM2019), Muğla, Türkiye, 9 - 11  
Ekim 2019, ss.187-191
- XXVIII. **Effect of eggshell on polymorphic transformation of calcium carbonate**  
Polat S., Sayan P.  
15th International Symposium on Biomineralization, Munich, Almanya, 9 - 13 Eylül 2019
- XXIX. **Influence of Equisetum arvense extract on calcium oxalate crystallization**  
Polat S., Sayan P.  
15th International Symposium on Biomineralization, Munich, Almanya, 9 - 13 Eylül 2019
- XXX. **Kalsiyum Tartarat Kristalizasyonunun Alanin KatkısıVarlığında İncelenmesi**  
Göze E., Polat S., Sayan P.  
31. Ulusal Kimya Kongresi, İstanbul, Türkiye, 10 - 13 Eylül 2019
- XXXI. **Oksalik Asidin Struvit Kristalizasyonuna Etkisinin İncelenmesi**  
Görener N., Polat S., Sayan P.  
31. Ulusal Kimya Kongresi, İstanbul, Türkiye, 10 - 13 Eylül 2019
- XXXII. **Struvite precipitation assessment in the presence of methionine and serine**  
Polat S., Sayan P.  
2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), Ankara,  
Türkiye, 28 - 29 Haziran 2019
- XXXIII. **Influence of Acetic Acid on the Crystallization of Struvite**  
Görener N., Polat S., Sayan P.  
2nd International Congress On Studies Academic Students, İstanbul, Türkiye, 26 - 27 Nisan 2019
- XXXIV. **Investigation of Aspartic Acid Effect on Calcium TartrateCrystallization**  
Göze E., Polat S., Sayan P.  
2nd International Congress On Studies Academic Students, İstanbul, Türkiye, 26 - 27 Nisan 2019
- XXXV. **Effects of Carboxylic Acids on the Metastable Zone Width of Glycine**  
POLAT S., SAYAN P.  
4th International Congress On Engineering, Architecture And Design, İstanbul, Türkiye, 23 - 24 Nisan 2019
- XXXVI. **Effect of Methionine and Tyrosine Amino Acids on Calcium Carbonate Precipitation**  
POLAT S., SAYAN P.  
4th International Congress On Engineering, Architecture And Design, İstanbul, Türkiye, 23 - 24 Nisan 2019
- XXXVII. **Kinetic Analysis of Thermal Decomposition of Mirabilite Using the Model-Fitting Methods**  
Polat S., Sayan P.  
4th International Conference on Advances on Mechanical Engineering: ICAME 2018, İstanbul, Türkiye, 19 - 21

Aralık 2018

- XXXVIII. **Kinetic modelling of hydroxyapatite crystals in the presence of hydroxypropyl- $\beta$ -cyclodextrin**  
Polat S., Sayan P.  
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Türkiye, 22 - 23 Kasım 2018
- XXXIX. **Effects of non-polar amino acids on calcium carbonate crystallization.**  
Polat S., Sayan P.  
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Türkiye, 22 - 23 Kasım 2018
- XL. **An Investigation into Thermogravimetric Kinetic Behavior of PVC via Thermogravimetric Analyzer**  
Polat S., Sayan P.  
Uluslararası Katılımlı VII. Polimer Bilim Ve Teknoloji Kongresi, Eskişehir, Türkiye, 9 - 12 Eylül 2018
- XLI. **Effect of Polyelectrolyte on Glycine Phase Transformation**  
Polat S., Sayan P.  
Uluslararası Katılımlı VII. Polimer Bilim Ve Teknoloji Kongresi, Eskişehir, Türkiye, 9 - 12 Eylül 2018
- XLII. **Evaluation of myristic acid effect on polymorphic transformation of glycine**  
Polat S., Sayan P.  
25th International Workshop on Industrial Crystallization (BIWIC2018), Rouen, Fransa, 6 - 07 Eylül 2018
- XLIII. **Influence of ultrasonic irradiation on calcium sulfate hemihydrate to dihydrate transformation process: Evaluation of crystal products**  
Polat S., Sayan P.  
25th International Workshop on Industrial Crystallization (BIWIC2018), Rouen, Fransa, 6 - 07 Eylül 2018
- XLIV. **Thermal Characteristics and Kinetic Parameters Assessment of Chitosan**  
Polat S., Sayan P.  
International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Türkiye, 26 - 27 Nisan 2018
- XLV. **Influence of Tartaric Acid on Phase Transformation Behavior of Glycine**  
Polat S., Sayan P.  
International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Türkiye, 26 - 27 Nisan 2018
- XLVI. **Glisinin Polimorfik Faz Dönüşümünün İncelenmesi**  
Polat S., Sayan P.  
6. Ulusal Biyomühendislik Öğrenci Kongresi, İstanbul, Türkiye, 5 - 06 Nisan 2018
- XLVII. **Biyokütlenin TGA'da Termal Bozunma Davranışının ve Kinetiğinin İncelenmesi**  
Polat S., Sayan P.  
6. Ulusal Biyomühendislik Öğrenci Kongresi, İstanbul, Türkiye, 5 - 06 Nisan 2018
- XLVIII. **Effect of Hydroxypropyl- $\beta$ -Cyclodextrin on Hydroxyapatite Crystallization**  
Kara A., Sayan P., Polat S.  
3rd International Conference on Advances on Mechanical Engineering: ICAME 2017, İstanbul, Türkiye, 19 - 21 Aralık 2017
- XLIX. **Assessment of Acetic Acid Effect on Glycine Phase Transformation**  
Polat S., Sayan P.  
3rd International Conference on Advances on Mechanical Engineering: ICAME 2017, İstanbul, Türkiye, 19 - 21 Aralık 2017
- L. **Crystallization Behaviour of Hydroxyapatite in The Presence of Valeric Acid**  
Polat S., Sayan P., Kara A.  
The Porous and Powder Materials Symposium and Exhibitions PPM 2017, Aydın, Türkiye, 12 - 15 Eylül 2017
- LI. **The Characterization and Polymorphism of  $\alpha$ -Glycine in the Presence of Butyric Acid**  
Polat S., Sayan P.  
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- LII. **Influence of propionic acid adsorption on phase transformation of calcium sulfate hemihydrate to**

- the dihydrate**  
Polat S., Sayan P.  
24th International Workshop on Industrial Crystallization (BIWIC2017), Dortmund, Almanya, 29 - 31 Ağustos 2017, ss.130-135
- LIII. **Effects of Carboxylic Acids as Additives on Crystallization of Calcium Sulfate Dihydrate**  
POLAT S., SARGUT S., SAYAN P.  
BIWIC 2016 - 23rd International Workshop on Industrial Crystallization, Magdeburg, Almanya, 6 - 08 Eylül 2016
- LIV. **Growth Kinetics of Calcium Sulfate Dihydrate in the Presence of Tartaric Acid**  
Polat S., Sargut S., Sayan P.  
BIWIC 2016 - 23rd International Workshop on Industrial Crystallization, Magdeburg, Almanya, 6 - 08 Eylül 2016
- LV. **Propiyonik Asit Varlığında Kalsiyum Sülfat Dihidrat (Jips) Kristalizasyonunun İncelenmesi**  
Polat S., Sargut S., Sayan P.  
12. Ulusal Kimya Mühendisliği Kongresi UKMK2016, İzmir, Türkiye, 23 - 26 Ağustos 2016
- LVI. **Oksalik Asidin Kalsiyum Sülfat Dihidrat Karakterizasyonuna Etkisi**  
Polat S., Sargut S., Sayan P.  
12. Ulusal Kimya Mühendisliği Kongresi UKMK2016, İzmir, Türkiye, 23 - 26 Ağustos 2016
- LVII. **Çay atığının TGA-FTIR-MS ile Termal Davranışının Belirlenmesi**  
Polat S., Pütün A. E.  
3. Ulusal Kimya Mühendisliği Öğrenci Kongresi, İstanbul, Türkiye, 2 - 04 Mayıs 2015
- LVIII. **Tütün Tarla Atığının TGA-FTIR-MS ile Termal Davranışının Belirlenmesi**  
Polat S., Pütün A. E.  
11. Ulusal Kimya Mühendisliği Kongresi (UKMK-11), Eskişehir, Türkiye, 2 - 05 Eylül 2014
- LIX. **Thermal Degradation Kinetics of Tobacco Farm Waste**  
Polat S., Varol E., Pütün A. E.  
21st European Biomass Conference and Exhibition, Kobenhavn, Danimarka, 3 - 06 Haziran 2013

## Desteklenen Projeler

Polat S., Özalp-Şendur T. N., Sayan P., Yükseköğretim Kurumları Destekli Proje, Kalsiyum Karbonatın Polimorfik Faz Dönüşümünün Çeşitli Katkılar Varlığında İncelenmesi, 2020 - 2021

Sayan P., Polat S., Yükseköğretim Kurumları Destekli Proje, Polimorfik davranış gösteren kristallerin faz dönüşüm karakteristiklerinin incelenmesi, 2018 - 2019

Sayan P., Polat S., Yükseköğretim Kurumları Destekli Proje, Katkılar varlığında faz değiştiren kristallerin davranışlarının incelenmesi, 2016 - 2018

Sayan P., Polat S., Sargut S., Yükseköğretim Kurumları Destekli Proje, Karboksilli Asitlerin Jips Morfolojisine ve Kristal Büyüme Kinetiği Üzerine Olan Etkilerinin İncelenmesi, 2015 - 2017

Polat S., Pütün A. E., Yükseköğretim Kurumları Destekli Proje, Farklı Atıkların TG-FTIR-MS ile Isıl Davranışlarının Belirlenmesi, 2013 - 2014

## Bilimsel Hakemlikler

MATERIALS, SCI-E Kapsamındaki Dergi, Aralık 2022

PHARMACEUTICALS, SCI-E Kapsamındaki Dergi, Aralık 2022

ENVIRONMENTAL CHALLENGES , ESCI Kapsamındaki Dergi, Aralık 2022

Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi, Hakemli Bilimsel Dergi, Aralık 2022

Surfaces and Interfaces, SCI-E Kapsamındaki Dergi, Kasım 2022

MOLECULES, SCI-E Kapsamındaki Dergi, Kasım 2022

CRYSTALS, SCI-E Kapsamındaki Dergi, Ekim 2022

POLYMER BULLETIN, SCI-E Kapsamındaki Dergi, Ekim 2022

JOURNAL OF CRYSTAL GROWTH, SCI-E Kapsamındaki Dergi, Ekim 2022  
ARABIAN JOURNAL OF CHEMISTRY, SCI-E Kapsamındaki Dergi, Eylül 2022  
JOURNAL OF CRYSTAL GROWTH, SCI-E Kapsamındaki Dergi, Eylül 2022  
JOURNAL OF CRYSTAL GROWTH, SCI-E Kapsamındaki Dergi, Ağustos 2022  
BIOMASS CONVERSION AND BIOPROCESSING, SCI-E Kapsamındaki Dergi, Haziran 2022  
Frontiers in Materials, SCI-E Kapsamındaki Dergi, Mayıs 2022  
MATERIALS CHEMISTRY AND PHYSICS, SCI-E Kapsamındaki Dergi, Mayıs 2022  
INDUSTRIAL CROPS AND PRODUCTS, Hakemli Bilimsel Dergi, Nisan 2022  
JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY, SCI-E Kapsamındaki Dergi, Şubat 2022  
BIOMEDICINE AND PHARMACOTHERAPY, SCI-E Kapsamındaki Dergi, Şubat 2022  
MINERALS ENGINEERING, SCI-E Kapsamındaki Dergi, Ocak 2022  
BOR DERGİSİ, Hakemli Bilimsel Dergi, Kasım 2021  
MINERALS ENGINEERING, SCI-E Kapsamındaki Dergi, Ekim 2021  
ENVIRONMENTAL CHALLENGES, ESCI Kapsamındaki Dergi, Ekim 2021  
MATERIALS TODAY COMMUNICATIONS, SCI-E Kapsamındaki Dergi, Eylül 2021  
BOR DERGİSİ, Hakemli Bilimsel Dergi, Ağustos 2021  
ARABIAN JOURNAL OF CHEMISTRY, SCI-E Kapsamındaki Dergi, Haziran 2021  
BOR DERGİSİ, Hakemli Bilimsel Dergi, Mayıs 2021  
BIOMASS CONVERSION AND BIOPROCESSING, SCI-E Kapsamındaki Dergi, Nisan 2021  
MATERIALS CHEMISTRY AND PHYSICS, SCI-E Kapsamındaki Dergi, Nisan 2021  
BIOMASS CONVERSION AND BIOPROCESSING, SCI-E Kapsamındaki Dergi, Nisan 2021  
JOURNAL OF CRYSTAL GROWTH, SCI-E Kapsamındaki Dergi, Aralık 2020  
ADVANCED POWDER TECHNOLOGY, SCI-E Kapsamındaki Dergi, Kasım 2020  
MethodsX, ESCI Kapsamındaki Dergi, Ekim 2020  
CRYSTAL GROWTH AND DESIGN, SCI-E Kapsamındaki Dergi, Eylül 2020  
CRYSTAL RESEARCH AND TECHNOLOGY, SCI-E Kapsamındaki Dergi, Ağustos 2020  
Konya mühendislik bilimleri dergisi (Online), Hakemli Bilimsel Dergi, Temmuz 2020  
TRENDS IN FOOD SCIENCE AND TECHNOLOGY, SCI-E Kapsamındaki Dergi, Haziran 2020  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Hakemli Bilimsel Dergi, Mayıs 2020  
ACS OMEGA, SCI-E Kapsamındaki Dergi, Ocak 2020  
Turkish Journal of Engineering, Hakemli Bilimsel Dergi, Kasım 2019  
ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, SCI-E Kapsamındaki Dergi, Ekim 2019  
Journal of the Turkish Chemical Society, Section B: Chemical Engineering, Hakemli Bilimsel Dergi, Haziran 2019  
JOURNAL OF CRYSTAL GROWTH, SCI-E Kapsamındaki Dergi, Ocak 2019  
Journal of Pharmacy Practice and Pharmaceutical Sciences, Diğer İndekslerce Taranan Dergi, Aralık 2018

## Metrikler

Yayın: 118  
Atıf (WoS): 271  
Atıf (Scopus): 356  
H-İndeks (WoS): 9  
H-İndeks (Scopus): 9

## Kongre ve Sempozyum Katılımı Faaliyetleri

2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), Çalışma Grubu, Ankara, Türkiye, 2019  
1st International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Çalışma

Grubu, Ankara, Türkiye, 2018

1st International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Çalışma Grubu, Ankara, Türkiye, 2018

The Porous and Powder Materials Symposium and Exhibitions PPM 2017, Çalışma Grubu, Aydin, Türkiye, 2017

12. Ulusal Kimya Mühendisliği Kongresi , Çalışma Grubu, Izmir, Türkiye, 2016

3. Ulusal Kimya Mühendisliği Öğrenci Kongresi, Çalışma Grubu, İstanbul, Türkiye, 2015

11. Ulusal Kimya Mühendisliği Kongresi , Çalışma Grubu, Eskişehir, Türkiye, 2014

## Ödüller

Polat S., Altın Kalem Doktora Tezi Birincilik Ödülü, Marmara Üniversitesi, Kasım 2019

Polat S., 2224-B Yurt İçi Bilimsel Etkinliklere Katılımı Destekleme Bursu, Tubitak, Ekim 2019

Polat S., Varol E., Pütün A. E., Most Cited Paper Award, The 12Th Conference On Sustainable Development Of Energy, Water And Environment Systems – Sdewes 2017 , Ekim 2017

Polat S., Kimya Mühendisliği Bölüm Üçüncülüğü, Anadolu Üniversitesi, Haziran 2011