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Biography

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.

Education Information

Post Doctorate, Technische Universiteit Delft, Process & Energy Department, Netherlands 2021 - 2022
Doctorate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Chemical Engineering (Eng), Turkey 2014 - 2018
Postgraduate, Anadolu University, Institute Of Science, Chemical Engineering , Turkey 2011 - 2014
Undergraduate, Anadolu University, Faculty Of Engineering-Architecture, Department Of Chemical Engineering, Turkey 2006 - 2011

Dissertations

Doctorate, Investigation of Behaviours of Phase Changed Crystals in the Presence of Additives, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Kimya Mühendisliği (Dr), 2018
Postgraduate, Farklı Atıkların TG-FTIR-MS ile Isıl Davranışlarının Belirlenmesi, Anadolu Üniversitesi, Fen Bilimleri Enstitüsü, 2014

Research Areas

Chemical Engineering and Technology, Basic Operations and Thermodynamics, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Engineering, Chemical Engineering, 2023 - Continues
Research Assistant, Marmara University, Faculty of Engineering, Chemical Engineering, 2014 - 2023

Courses

Bitirme Projesi II, Undergraduate, 2019 - 2020
Enerji Teknolojisi, Stratejisi ve Ekonomisi, Undergraduate, 2019 - 2020
Basic Chemistry, Undergraduate, 2019 - 2020
Bitirme Projesi I, Undergraduate, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

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, vol.324, pp.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, vol.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, vol.1, no.1, pp.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, vol.1, no.1, pp.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, vol.52, pp.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, vol.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, vol.592, pp.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, vol.32, no.10, pp.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, vol.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, vol.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, vol.68, no.2, pp.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, vol.207, no.11, pp.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, vol.31, no.10, pp.4282-4291, 2020 (SCI-Expanded)

XIV. **Ultrasonic-assisted eggshell extract-mediated polymorphic transformation of calcium carbonate**
Polat S., Sayan P.
ULTRASONICS SONOCHEMISTRY, vol.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, vol.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, vol.67, no.3, pp.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, vol.30, no.10, pp.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, vol.522, pp.92-102, 2019 (SCI-Expanded)

XX. **Ultrasonic Irradiation during the Calcium Sulfate Hemihydrate to Dihydrate Transformation Process**
Polat S., Sayan P.
CHEMICAL ENGINEERING & TECHNOLOGY, vol.42, no.7, pp.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, vol.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, vol.508, pp.8-18, 2019 (SCI-Expanded)

XXIII. **Effect of ultrasonic irradiation on morphology and polymorphic transformation of glycine**
Polat S., Sayan P.
ULTRASONICS SONOCHEMISTRY, vol.47, pp.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, vol.26, pp.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, vol.29, pp.1968-1976, 2018 (SCI-Expanded)

XXVI. **Characteristics and Thermal Kinetics of Hydroxyapatite Crystals Doped with Tricarballylic Acid**
Polat S., Sayan P.
CHEMICAL ENGINEERING & TECHNOLOGY, vol.41, no.6, pp.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, vol.481, pp.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, vol.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, vol.53, pp.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, vol.40, no.7, pp.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, vol.12, no.3, pp.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, vol.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, vol.204, pp.1318-1331, 2017 (SCI-Expanded)

XXXIV. **Investigation of calcium sulfate dihydrate crystallization in the presence of glutamic acid in MSMPR crystallizer**
POLAT S., SAYAN P., SARGUT S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.32, no.4, pp.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, vol.38, no.20, pp.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, vol.38, no.20, pp.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, vol.18, pp.833-842, 2014 (SCI-Expanded)

Articles Published in Other Journals

I. **Thermal degradation of calcium lactate pentahydrate using TGA/FTIR/MS: thermal kinetic and thermodynamics studies**
Polat S.
INDIAN CHEMICAL ENGINEER, vol.1, no.1, 2021 (ESCI)

II. **Süksinik Asit Varlığında Struvit Kristalizasyonunun İncelenmesi**
Polat S., Görener N., Sayan P.
Konya Journal of Engineering Sciences, vol.9, pp.54-65, 2021 (Peer-Reviewed Journal)

III. **Effect of various metal ions on gypsum precipitation**
Polat S., Sayan P.
INDIAN CHEMICAL ENGINEER, vol.63, no.4, pp.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, vol.63, no.3, pp.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, vol.8, no.1, pp.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, vol.7, no.4, pp.271-277, 2020 (Peer-Reviewed Journal)

VII. **An Investigation of Polymorphism of Calcium Carbonate in the Presence of Proline**
Polat S., Demiray B., Tekin B., Kardaş M.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.20, no.5, pp.883-891, 2020 (Peer-Reviewed Journal)

VIII. **Box–Behnken Experimental Design for Zinc Borate $Zn_2B_6O_{11}\cdot 7H_2O$**
Polat S., Sayan P.
Journal of Boron, vol.5, no.3, pp.152-161, 2020 (Peer-Reviewed Journal)

IX. **Hidroksiapatit Kristalizasyonunun Pentanoik Asit Varlığında İncelenmesi**
Sayan P., Polat S., Kara A.
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.22, no.2, pp.415-427, 2020 (Peer-Reviewed Journal)

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, vol.32, no.1, pp.33-41, 2020 (Peer-Reviewed Journal)

XI. **Effect of avocado (persea gratissima) leaf extract on calcium oxalate crystallization**
Polat S.
ACTA Pharmaceutica Sciencia, vol.58, no.1, pp.35-48, 2020 (Scopus)

XII. **Effects of polyelectrolytes on the hardness of borax decahydrate crystals**
Polat S., Sayan P.
Bor Dergisi, vol.4, no.4, pp.172-179, 2019 (Peer-Reviewed Journal)

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, vol.20, no.4, pp.393-405, 2019 (Peer-Reviewed Journal)

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.), vol.1, no.2, pp.42-47, 2018 (Peer-Reviewed Journal)

XV. **Growth Kinetics of Calcium Sulfate Dihydrate in the Presence of OxalicAcid**

Polat S., Sargut S., Sayan P.
Journal of Turkish Chemical Society B Chemical Engineering, vol.1, pp.39-48, 2017 (Peer-Reviewed Journal)

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, vol.16, pp.211, 2015 (Peer-Reviewed Journal)

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, vol.1, no.1, pp.420-430, 2013 (Peer-Reviewed Journal)

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, vol.1, no.1, pp.108-119, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

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

Refereed Congress / Symposium Publications in Proceedings

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), Belgium, 11 - 14 September 2022, pp.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, Finland, 31 August - 02 September 2022, pp.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), Malaysia, 9 - 12 August 2022, pp.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), Malaysia, 9 - 12 August 2022

V. **Fabrication of calcium sulfate hemihydrate whisker under hydrothermal condition**
POLAT S., ERAL H. B.
ECCG7 – Seventh European Conference on Crystal Growth, Paris, France, 25 - 27 July 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, France, 25 - 27 July 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, Netherlands, 24 June 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, Netherlands, 25 May 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, Netherlands, 4 - 05 April 2022

X. **Optimized Preparation of Polyvinyl Ferrocene-Based Electrodes for Selective Ion Separation**
POLAT S., KORTLEVER R., ERAL H. B.
e-Refinery Symposium, Netherlands, 14 - 15 March 2022

XI. **Polyvinyl Ferrocene Based Electrodes for Selective Formate Separation**
POLAT S., KORTLEVER R., ERAL H. B.
NWO CHAINS 2021, Netherlands, 7 - 08 December 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, Netherlands, 11 November 2021

XIII. **Süksinik Asit Varlığında Struvit Kristalizasyonunun İncelenmesi**
Görener N., Polat S., Sayan P.
14. Ulusal Kimya Mühendisliği Kongresi (UKMK2020), Konya, Turkey, 10 - 12 June 2021, pp.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, Turkey, 10 - 12 June 2021

XV. **Glutamik Asitin Kalsiyum Oksalat Kristalizasyonuna Etkisinin İncelenmesi**
Polat S.
14. Ulusal Kimya Mühendisliği Kongresi (UKMK2020), Konya, Turkey, 10 - 12 June 2021, pp.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, Thailand, 26 - 28 May 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, Thailand, 26 - 28 May 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, Turkey, 16 - 18 December 2020, pp.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, Turkey, 16 - 18 December 2020, pp.97

XX. **Glutamik Asit Varlığında Kalsiyum Karbonat Kristalizasyonunun İncelenmesi**
Özalp T. N., Polat S., Sayan P.
32. Online Ulusal Kimya Kongresi, Eskişehir, Turkey, 17 - 19 September 2020

XXI. **Kalsiyum Karbonatın Polimorfik Faz Dönüşümünün Ultrasonik Etki Varlığında İncelenmesi**
ÖZALP T. N., POLAT S., SAYAN P.

32. Online Ulusal Kimya Kongresi, Turkey, 17 - 19 September 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, Turkey, 19 - 20 March 2020, pp.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, Turkey, 19 - 20 March 2020, pp.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, Turkey, 17 - 19 December 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, Turkey, 9 - 11 October 2019, pp.45

XXVI. **The Influence of Curcumın on Calcıum OxalateCrystallızatıon in Vıtro**
Polat S., Sayan P.
4 th International Porous and Powder Materials Symposium and Exhibitions (PPM2019), Muğla, Turkey, 9 - 11 October 2019, pp.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, Turkey, 9 - 11 October 2019, pp.187-191

XXVIII. **Effect of eggshell on polymorphic transformation of calcium carbonate**
Polat S., Sayan P.
15th International Symposium on Biomineralization, Munich, Germany, 9 - 13 September 2019

XXIX. **Influence of Equisetum arvense extract on calcium oxalate crystallization**
Polat S., Sayan P.
15th International Symposium on Biomineralization, Munich, Germany, 9 - 13 September 2019

XXX. **Kalsiyum Tartarat Kristalizasyonunun Alanin KatkısıVarlığında İncelenmesi**
Göze E., Polat S., Sayan P.
31. Ulusal Kimya Kongresi, İstanbul, Turkey, 10 - 13 September 2019

XXXI. **Oksalik Asidin Struvit Kristalizasyonuna Etkisinin İncelenmesi**
Görener N., Polat S., Sayan P.
31. Ulusal Kimya Kongresi, İstanbul, Turkey, 10 - 13 September 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, Turkey, 28 - 29 June 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, Turkey, 26 - 27 April 2019

XXXIV. **Investigation of Aspartic Acid Effect on Calcium TartrateCrystallization**
Göze E., Polat S., Sayan P.
2nd International Congress On Studies Academic Students, İstanbul, Turkey, 26 - 27 April 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, Turkey, 23 - 24 April 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, Turkey, 23 - 24 April 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, Turkey, 19 - 21 December 2018

XXXVIII. **Kinetic modelling of hydroxyapatite crystals in the presence of hydroxypropyl-β-cyclodextrin**
Polat S., Sayan P.
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 - 23 November 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, Turkey, 22 - 23 November 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, Turkey, 9 - 12 September 2018

XLI. **Effect of Polyelectrolyte on Glycine Phase Transformation**
Polat S., Sayan P.
Uluslararası Katılımlı VII. Polimer Bilim Ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018

XLII. **Evaluation of myristic acid effect on polymorphic transformation of glycine**
Polat S., Sayan P.
25th International Workshop on Industrial Crystallization (BIWIC2018), Rouen, France, 6 - 07 September 2018

XLIII. **Influence of ultrasonic irradiation on calcium sulfate hemihydrate to dihydrate transformationprocess: Evaluation of crystal products**
Polat S., Sayan P.
25th International Workshop on Industrial Crystallization (BIWIC2018), Rouen, France, 6 - 07 September 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, Turkey, 26 - 27 April 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, Turkey, 26 - 27 April 2018

XLVI. **Glisinin Polimorfik Faz Dönüşümünün İncelenmesi**
Polat S., Sayan P.
6. Ulusal Biyomühendislik Öğrenci Kongresi, İstanbul, Turkey, 5 - 06 April 2018

XLVII. **Biyokütlenin TGA'da Termal Bozunma Davranışının ve Kinetiğinin İncelenmesi**
Polat S., Sayan P.
6. Ulusal Biyomühendislik Öğrenci Kongresi, İstanbul, Turkey, 5 - 06 April 2018

XLVIII. **Effect of Hydroxypropyl-β-Cyclodextrin on HydroxayapatiteCrystallization**
Kara A., Sayan P., Polat S.
3rd International Conference on Advances on Mechanical Engineering: ICAME 2017, İstanbul, Turkey, 19 - 21 December 2017

XLIX. **Assessment of Acetic Acid Effect on Glycine PhaseTransformation**
Polat S., Sayan P.
3rd International Conference on Advances on Mechanical Engineering: ICAME 2017, İstanbul, Turkey, 19 - 21 December 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, Turkey, 12 - 15 September 2017

LI. **The Characterization and Polymorphism of α-Glycine in the Presence of Butyric Acid**
Polat S., Sayan P.
The Porous and Powder Materials Symposium and Exhibitions PPM 2017, Aydın, Turkey, 12 - 15 September 2017

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, Germany, 29 - 31 August 2017, pp.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, Germany, 6 - 08 September 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, Germany, 6 - 08 September 2016

LV. **Propiyonik Asit Varlığında Kalsiyum Sülfat Dihidrat (Jips) Kristalizasyonunun İncelenmesi**
Polat S., Sargut S., Sayan P.
12. Ulusal Kimya Mühendisliği Kongresi UKMK2016, İzmir, Turkey, 23 - 26 August 2016

LVI. **Oksalik Asidin Kalsiyum Sülfat Dihidrat Karakterizasyonuna Etkisi**
Polat S., Sargut S., Sayan P.
12. Ulusal Kimya Mühendisliği Kongresi UKMK2016, İzmir, Turkey, 23 - 26 August 2016

LVII. **Çay atığının TGA-FTIR-MS ile Termal Davranışının Belirlenmesi**
Polat S., Pütün A. E.
3. Ulusal Kimya Mühendisliği Öğrenci Kongresi, İstanbul, Turkey, 2 - 04 May 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, Turkey, 2 - 05 September 2014

LIX. **Thermal Degradation Kinetics of Tobacco Farm Waste**
Polat S., Varol E., Pütün A. E.
21st European Biomass Conference and Exhibition, Kobenhavn, Denmark, 3 - 06 June 2013

Supported Projects

Polat S., Özalp-Şendur T. N., Sayan P., Project Supported by Higher Education Institutions, Kalsiyum Karbonatın Polimorfik Faz Dönüşümünün Çeşitli Katkılar Varlığında İncelenmesi, 2020 - 2021

Sayan P., Polat S., Project Supported by Higher Education Institutions, Polimorfik davranış gösteren kristallerin faz dönüşüm karakteristiklerinin incelenmesi, 2018 - 2019

Sayan P., Polat S., Project Supported by Higher Education Institutions, Katkılar varlığında faz değiştiren kristallerin davranışlarının incelenmesi, 2016 - 2018

Sayan P., Polat S., Sargut S., Project Supported by Higher Education Institutions, Karboksilli Asitlerin Jips Morfolojisine ve Kristal Büyüme Kinetiği Üzerine Olan Etkilerinin İncelenmesi, 2015 - 2017

Polat S., Pütün A. E., Project Supported by Higher Education Institutions, Farklı Atıkların TG-FTIR-MS ile Isıl Davranışlarının Belirlenmesi, 2013 - 2014

Scientific Refereeing

ENVIRONMENTAL CHALLENGES , Journal Indexed in ESCI, December 2022

Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi, National Scientific Refreed Journal, December 2022
PHARMACEUTICALS, Journal Indexed in SCI-E, December 2022
MATERIALS, Journal Indexed in SCI-E, December 2022
Surfaces and Interfaces, Journal Indexed in SCI-E, November 2022
MOLECULES, Journal Indexed in SCI-E, November 2022
CRYSTALS, Journal Indexed in SCI-E, October 2022
POLYMER BULLETIN, Journal Indexed in SCI-E, October 2022
JOURNAL OF CRYSTAL GROWTH, Journal Indexed in SCI-E, October 2022
JOURNAL OF CRYSTAL GROWTH, Journal Indexed in SCI-E, September 2022
ARABIAN JOURNAL OF CHEMISTRY, Journal Indexed in SCI-E, September 2022
JOURNAL OF CRYSTAL GROWTH, Journal Indexed in SCI-E, August 2022
BIOMASS CONVERSION AND BIOREFINERY, Journal Indexed in SCI-E, June 2022
Frontiers in Materials, Journal Indexed in SCI-E, May 2022
MATERIALS CHEMISTRY AND PHYSICS, Journal Indexed in SCI-E, May 2022
INDUSTRIAL CROPS AND PRODUCTS, National Scientific Refreed Journal, April 2022
JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY, Journal Indexed in SCI-E, February 2022
BIOMEDICINE AND PHARMACOTHERAPY, Journal Indexed in SCI-E, February 2022
MINERALS ENGINEERING, Journal Indexed in SCI-E, January 2022
BOR DERGİSİ, National Scientific Refreed Journal, November 2021
MINERALS ENGINEERING, Journal Indexed in SCI-E, October 2021
ENVIRONMENTAL CHALLENGES , Journal Indexed in ESCI, October 2021
MATERIALS TODAY COMMUNICATIONS, Journal Indexed in SCI-E, September 2021
BOR DERGİSİ, National Scientific Refreed Journal, August 2021
ARABIAN JOURNAL OF CHEMISTRY, Journal Indexed in SCI-E, June 2021
BOR DERGİSİ, National Scientific Refreed Journal, May 2021
BIOMASS CONVERSION AND BIOREFINERY, Journal Indexed in SCI-E, April 2021
BIOMASS CONVERSION AND BIOREFINERY, Journal Indexed in SCI-E, April 2021
MATERIALS CHEMISTRY AND PHYSICS, Journal Indexed in SCI-E, April 2021
JOURNAL OF CRYSTAL GROWTH, Journal Indexed in SCI-E, December 2020
ADVANCED POWDER TECHNOLOGY, Journal Indexed in SCI-E, November 2020
MethodsX, Journal Indexed in ESCI, October 2020
CRYSTAL GROWTH AND DESIGN, Journal Indexed in SCI-E, September 2020
CRYSTAL RESEARCH AND TECHNOLOGY, Journal Indexed in SCI-E, August 2020
Konya mühendislik bilimleri dergisi (Online), National Scientific Refreed Journal, July 2020
TRENDS IN FOOD SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, June 2020
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, May 2020
ACS OMEGA, Journal Indexed in SCI-E, January 2020
Turkish Journal of Engineering, National Scientific Refreed Journal, November 2019
ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, Journal Indexed in SCI-E, October 2019
Journal of the Turkish ChemicalSociety, Section B: Chemical Engineering, National Scientific Refreed Journal, June 2019
JOURNAL OF CRYSTAL GROWTH, Journal Indexed in SCI-E, January 2019
Journal of Pharmacy Practice andPharmaceutical Sciences, Other Indexed Journal, December 2018

Metrics

Publication: 118
Citation (WoS): 263
Citation (Scopus): 356
H-Index (WoS): 9
H-Index (Scopus): 9

Congress and Symposium Activities

2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), Working Group, Ankara, Turkey, 2019
1st International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Working Group, Ankara, Turkey, 2018
1st International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Working Group, Ankara, Turkey, 2018
The Porous and Powder Materials Symposium and Exhibitions PPM 2017, Working Group, Aydın, Turkey, 2017
12. Ulusal Kimya Mühendisliği Kongresi , Working Group, İzmir, Turkey, 2016
3. Ulusal Kimya Mühendisliği Öğrenci Kongresi, Working Group, İstanbul, Turkey, 2015
11. Ulusal Kimya Mühendisliği Kongresi , Working Group, Eskişehir, Turkey, 2014

Awards

Polat S., Altın Kalem Doktora Tezi Birincilik Ödülü, Marmara Üniversitesi, November 2019
Polat S., 2224-B Yurt İçi Bilimsel Etkinliklere Katılımı Destekleme Bursu, Tubitak, October 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 , October 2017
Polat S., Kimya Mühendisliği Bölüm Üçüncülüğü, Anadolu Universitesi, June 2011