

## Assoc. Prof. Mehmet GÖNEN

### Personal Information

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### Education Information

Doctorate, Suleyman Demirel University, Mühendislik Ve Fen Bilimleri Enstitüsü, Kimya Mühendisliği, Turkey 2003 - 2009

Postgraduate, Suleyman Demirel University, Mühendislik Ve Fen Bilimleri Enstitüsü, Kimya Mühendisliği, Turkey 2000 - 2003

Undergraduate, Ege University, Faculty Of Engineering, Kimya Mühendisliği Bölümü, Turkey Continues

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Nanosized Zinc Borate Production, Izmir Institute Of Technology, Mühendislik Fakültesi, Kimya Mühendisliği/Kimya Mühendisliği A.B.D., 2009

Postgraduate, Process Development for Metal Soaps, Izmir Institute Of Technology, Mühendislik Fakültesi, Kimya Mühendisliği/Kimya Mühendisliği A.B.D., 2003

### Research Areas

Chemical Engineering and Technology, Process and Reactor Design, Chemical Reaction Engineering, Process Design, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Suleyman Demirel University, Mühendislik Fakültesi/Kimya Mühendisliği Bölümü, Kimya Mühendisliği, 2016 - Continues

Assistant Professor, Suleyman Demirel University, Mühendislik Fakültesi/Kimya Mühendisliği Bölümü, Kimya Mühendisliği, 2010 - 2016

Research Assistant, Izmir Institute Of Technology, Mühendislik Fakültesi/Kimya Mühendisliği Bölümü, Kimya Mühendisliği, 2000 - 2009

- I. **Supercritical CO<sub>2</sub>-assisted synthesis of Lithium-rich layered metal oxide material for Lithium-ion batteries**  
Yalcin A., DEMİR M., Khankeshizadeh S., Ates M. N. , GÖNEN M., Akguen M.  
SOLID STATE IONICS, vol.383, 2022 (SCI-Expanded)
- II. **Effects of Span 60 template and freeze drying on zinc borate produced from zinc nitrate hexahydrate and borax decahydrate**  
Alp B., GÖNEN M., Savrik S. A. , Balkose D.  
DRYING TECHNOLOGY, vol.40, no.14, pp.2857-2871, 2022 (SCI-Expanded)
- III. **Techno-economic Analysis of Boric Acid Production from Colemanite Mineral and Sulfuric Acid**  
GÖNEN M., Rodene D. D. , PANDA S., Akcil A.  
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, 2021 (SCI-Expanded)
- IV. **A novel approach for the production of zinc borate (4ZnO center dot B<sub>2</sub>O<sub>3</sub> center dot H<sub>2</sub>O) using a single-step hydrothermal method**  
YALÇIN A., GÖNEN M.  
MAIN GROUP METAL CHEMISTRY, vol.44, no.1, pp.1-8, 2021 (SCI-Expanded)
- V. **Optimization of boric acid extraction from ulexite mineral by using supercritical carbon dioxide**  
İpeksever S., GÖNEN M.  
Journal of Supercritical Fluids, vol.166, 2020 (SCI-Expanded)
- VI. **Boric Acid Production from Colemanite Together with ex Situ CO<sub>2</sub> Sequestration**  
GÖNEN M., Nyankson E., Gupta R. B.  
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.55, no.17, pp.5116-5124, 2016 (SCI-Expanded)
- VII. **Interfacially Active Hydroxylated Soybean Lecithin Dispersant for Crude Oil Spill Remediation**  
Nyankson E., Demir M., Gonen M., Gupta R. B.  
ACS SUSTAINABLE CHEMISTRY & ENGINEERING, vol.4, no.4, pp.2056-2067, 2016 (SCI-Expanded)
- VIII. **Extraction of boric acid from tincal mineral by supercritical ethanol**  
LEVENT S., BUDAK A., PAMUKOĞLU M. Y. , GÖNEN M.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.109, pp.67-73, 2016 (SCI-Expanded)
- IX. **Preparation and Characterization of Magnesium Stearate, Cobalt Stearate, and Copper Stearate and Their Effects on Poly(vinyl chloride) Dehydrochlorination**  
GÖNEN M., Egbuchunam T. O. , Balkose D., İnal F., Ulku S.  
JOURNAL OF VINYL & ADDITIVE TECHNOLOGY, vol.21, no.4, pp.235-244, 2015 (SCI-Expanded)
- X. **Extraction of boric acid from colemanite mineral by supercritical carbon dioxide**  
BUDAK A., GÖNEN M.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.92, pp.183-189, 2014 (SCI-Expanded)
- XI. **PREPARATION, CHARACTERIZATION, AND APPLICATIONS OF MAGNESIUM STEARATE, COBALT STEARATE, AND COPPER STEARATE**  
GÖNEN M., Egbuchunam T. O. , Balkose D., İNAL F., Ulku S.  
KEY ENGINEERING MATERIALS, VOL 1: CURRENT STATE OF THE ART ON NOVEL MATERIALS, pp.209-214, 2014 (SCI-Expanded)
- XII. **Supercritical ethanol drying of zinc borates of 2ZnO center dot 3B(2)O(3)center dot 3H(2)O and ZnO center dot B<sub>2</sub>O<sub>3</sub> center dot 2H(2)O**  
GÖNEN M., Balkose D., Ulku S.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.59, pp.43-52, 2011 (SCI-Expanded)
- XIII. **Preparation and Characterization of Calcium Stearate Powders and Films Prepared by Precipitation and Langmuir-Blodgett Techniques**  
Gonen M., Ozturk S., Balkose D., Okur S., Ulku S.  
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.49, no.4, pp.1732-1736, 2010 (SCI-Expanded)
- XIV. **Supercritical Carbon Dioxide Drying of Methanol-Zinc Borate Mixtures**  
Gonen M., Balkose D., Gupta R. B. , Ulku S.  
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.48, no.14, pp.6869-6876, 2009 (SCI-Expanded)
- XV. **The effect of zinc stearate on thermal degradation of paraffin wax**

Gonen M., Balkose D., Inal F., Ulku S.

JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.94, no.3, pp.737-742, 2008 (SCI-Expanded)

XVI. **Zinc stearate production by precipitation and fusion processes**

Gonen M., Balkose D., İNAL F., Ulku S.

INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.44, no.6, pp.1627-1633, 2005 (SCI-Expanded)

## Articles Published in Other Journals

I. **LITHIUM TETRABORATE PRODUCTION FROM THE REACTION OF BORIC ACID AND LITHIUM CARBONATE USING CARBON DIOXIDE**

YALÇIN A., GÖNEN M.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.38, no.3, pp.1121-1132, 2020 (ESCI)

II. **Kimya Sanayiinde Statik Elektrik Tehlikesi ve Alınması Gereken Önlemler**

GÖNEN M.

Kimya Mühendisliği Dergisi, no.169, pp.25-28, 2007 (Non Peer-Reviewed Journal)

## Books & Book Chapters

I. **Advancements in Boric Acid Production from Boron Minerals**

GÖNEN M.

in: Physical chemistry for engineering and Applied Sciences: Theoretical and Methodological Implications, Haghi A.K., Aguilar C.N., Thomas S., Praveen K. M., Editor, Apple Academic Press, New-Jersey, pp.26-43, 2018

II. **Dehydration Kinetics of Zinc Borates (2ZnO.3B2O3.3H2O and 4ZnO.B2O3.H2O) by Thermal Analysis**

GÖNEN M., BALKÖSE D., ÜLKÜ S.

in: Physical Chemistry for Chemist and Chemical Engineers: Multidisciplinary Research Perspective, Vakhrushev A. V., Haghi R., de Julian Ortiz J.V., Editor, Apple Academic Press, New-Jersey, pp.304-322, 2018

## Refereed Congress / Symposium Publications in Proceedings

I. **CHARACTERIZATION AND IDENTIFICATION OF ACOMMERCIAL POLYETHYLENE WAX BY PROPERTYCOMPARISON WITH A PARAFFIN WAX, SORBITANMONOSTEARATE AND MYRSTIC ACID**

YETGİN S., GÖNEN M., Atakul S., Balköse D.

4th International Porous Powder Materials Symposium 2019, 9 - 11 October 2019

II. **Tek Adımlı Hidrotermal Yöntem Kullanarak Çinko Borat(4ZnO.B2O3.H2O) Üretimi ve Karakterizasyonu**

İnan Z., Emniyet G., YALÇIN A., GÖNEN M.

International Boron Symposium 2019, 17 - 19 April 2019

III. **Techno-Economic Analysis of Zinc Borate (2ZnO.3B2O3.3H2O) Production using SuperPro Designer Program**

GÖNEN M.

International Boron Symposium 2019, 17 - 19 April 2019

IV. **4ZnO.B2O3.H2O Yapısındaki Çinko Boratin Üretimi ve Karakterizasyonu**

KÜÇÜKTEKİN F., SATMAZ İ., KANPULAT D., ALP F. B. , GÖNEN M.

13. ULUSAL KİMYA MÜHENDİSLİĞİ KONGRESİ, Turkey, 3 - 06 September 2018

V. **Üleksit-Karbondioksit Reaksiyonundaki Şartların Optimizasyonu**

İpeksever S., YALÇIN A., GÖNEN M.

13. Ulusal Kimya Mühendisliği Kongresi, Turkey, 3 - 06 September 2018

- VI. **ÜLEKSİT- KARBONDİOKSİT REAKSİYONUNDAKİ ŞARTLARIN OPTİMİZASYONU**  
YALÇIN A., GÖNEN M., İPEKSEVER S.  
13. ULUSAL KİMYA MÜHENDİSLİĞİ KONGRESİ, Turkey, 3 - 06 September 2018
- VII. **CO2 VARLIĞINDA LİTYUM TETRABORAT (Li2B4O7) ÜRETİMİ**  
GÖNEN M., YALÇIN A.  
13. ULUSAL KİMYA MÜHENDİSLİĞİ KONGRESİ, Turkey, 3 - 06 September 2018
- VIII. **CO2 Sequestration by Boron Minerals**  
YALÇIN A., İpeksever S., GÖNEN M.  
12th International Symposium on Supercritical Fluids, Antibes, France, 22 - 25 April 2018
- IX. **EXTRACTION OF BORIC ACID FROM ULEXITE MINERAL BY SUPERCRITICAL CO2**  
YALÇIN A., GÖNEN M., İPEKSEVER S.  
12th International Symposium on Supercritical Fluids, 22 - 25 April 2018
- X. **POLİMERİK KOMPOZİTLERDE ALEV GECİKTİRİCİ OLARAK KULLANILAN ÇİNKO BORATIN (2ZnO·3B2O3·3H2O) ÜRETİMİ VE KARAKTERİZASYONU**  
GÖNEN M., BALKÖSE D., YALÇIN A.  
V. Uluslararası Polimerik Kompozitler Sempozyumu ve Çalıştayları, 2 - 04 November 2017
- XI. **KARBONDİOKSİT İLE KOLEMANİTTEN BORİK ASİT ÜRETİM PROSESİNİN EKONOMİK ANALİZİ**  
GÖNEN M., BUDAK A.  
12. Ulusal Kimya Mühendisliği Kongresi, Turkey, 23 - 26 August 2016
- XII. **LABORATUVARLARDA YÜKSEK BASINÇLI SİSTEMLERDEKİ RİSKLER VE ALINMASIGEREKEN ÖNLEMLER**  
GÖNEN M., BUDAK A.  
2. Uluslararası İş Güvenliği ve Çalışan Sağlığı Kongresi, 6 - 07 May 2016
- XIII. **Useful Product Recovery from the Olive Oil Wastewater An Experimental Design Approach**  
PAMUKOĞLU M. Y., GÖNEN M., KIRKAN B., Can D., Köse M. N., Akkoca D., Yeni G., Pamukoglu Z.  
international conference on natural science and engineering, 19 - 20 March 2016
- XIV. **Supercritical Ethanol Drying of Zinc Borates**  
GÖNEN M., Devrim B., ALP F. B., Atakul Savrık S., Semra Ü.  
Fourth International Boron Symposium, Eskişehir, Turkey, 15 - 17 October 2009
- XV. **Zinc Borate Lubricant Production by Inverse Emulsion Technique**  
Savrık Atakul S., GÖNEN M., ALP F. B., Devrim B.  
Fourth International Boron Symposium, Eskişehir, Turkey, 15 - 17 October 2009
- XVI. **Investigation of Dehydration Behavior of Zinc Borates by in Situ DRIFT FTIR Spectroscopy**  
GÖNEN M., Atakul Savrık S., ALP F. B., Ayaz a., Balköse D.  
1. Somer Symposium, Ankara, Turkey, 20 October 2008
- XVII. **Nano Size Zinc Borate Production from Borax Decahydrate and Zinc Nitrate**  
Sevdiye S. A., GÖNEN M., ALP F. B., Balköse D.  
5th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries, Cetrato, Italy, 24 - 29 May 2008
- XVIII. **Çinko Borat Parçacıklarının Süperkritik Karbondioksit ile Kurutulması**  
GÖNEN M., ALP F. B., Savrık Atakul S., Balköse D., Semra Ü.  
, II. Ulusal Bor Çalıştayı, Ankara, Turkey, 17 - 18 April 2008
- XIX. **Çinko Borat Türlerinden 2ZnO 3B2O3 7H2O ve 2ZnO 3B2O3 3H2O nun Dehidratasyon Davranışları**  
ALP F. B., GÖNEN M., SAVRIK ATAKUL S., BALKÖSE d., ÜLKÜ S.  
II. Ulusal Bor Çalıştayı, Turkey, 17 - 18 April 2008
- XX. **Boraks Dekahidrat ve Çinko Nitrattan Mikron altı Tane Boyutlu Çinko Borat Üretimi**  
Savrık S., GÖNEN M., ALP F. B., balköse D., Ülkü S.  
II. Ulusal Bor Çalıştayı, Ankara, Turkey, 17 - 18 April 2008

## **Metrics**

Publication: 41

Citation (WoS): 110

Citation (Scopus): 127

H-Index (WoS): 6

H-Index (Scopus): 7

## **Non Academic Experience**

Business Establishment Private, Baykim Kimya Sanayii