

## Assoc. Prof. OKAN İÇTEN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji ve Nanotıp A.B.D., Turkey 2012 - 2017

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Kimya Bölümü, Turkey 2008 - 2011

Undergraduate, Cukurova University, Fen, Kimya Bölümü, Turkey 2004 - 2008

### Foreign Languages

English, C2 Mastery

### Research Areas

Boron Chemistry, Biomaterials, Material Characterization, Nanomaterials, Chemistry, Inorganic Chemistry, Bioinorganic Chemistry, nanoclusters

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2022 - Continues

Lecturer PhD, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2019 - 2022

Research Assistant, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji ve Nanotıp A.B.D., 2012 - 2018

### Courses

KİMYA LAB.II, Undergraduate, 2022 - 2023

ENDÜSTRİYEL KİMYA LAB., Undergraduate, 2022 - 2023

GENEL KİMYA II, Undergraduate, 2022 - 2023

ANORGANİK KİMYA LAB., Undergraduate, 2022 - 2023

GENEL KİMYA, Undergraduate, 2022 - 2023

## Advising Theses

İçten O., Karan B., Demir borat-seryum oksit katalizör karışımlarının hazırlanması ve benzil alkolün yükseltgenmesinde kullanılması, Postgraduate, A.METE(Student), 2022

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Solvent-Free Oxidation of Benzyl Alcohol Over Mechanochemically Prepared Fe<sub>3</sub>BO<sub>6</sub>-CeO<sub>2</sub> Catalyst**  
Turgut A. M., ÖZER D., İÇTEN O., Zumreoglu-Karan B.  
CATALYSIS LETTERS, vol.153, no.6, pp.1719-1725, 2023 (SCI-Expanded)
- II. **Design and Development of Gold-Loaded and Boron-Attached Multicore Manganese Ferrite Nanoparticles as a Potential Agent in Biomedical Applications**  
İÇTEN O., ERDEM TUNÇDEMİR B., MERGEN H.  
ACS OMEGA, vol.7, no.23, pp.20195-20203, 2022 (SCI-Expanded)
- III. **Energetic aspects of elemental boron: a mini-review**  
İÇTEN O., Zumreoglu-Karan B.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.44, no.1, pp.182-194, 2022 (SCI-Expanded)
- IV. **The electrochemical performance of manganese oxoborate cathodes for lithium-ion batteries: Effect of synthesis method**  
ERTEKİN Z., Ozgenc G., ÖZER D., İÇTEN O., Elmaci G., Kose D., PEKMEZ K., KARAN B.  
Ceramics International, vol.47, no.24, pp.35312-35319, 2021 (SCI-Expanded)
- V. **Manganese Oxoborate-Based Nanostructures as Novel Oxygen Evolution Catalysts in Neutral Media**  
ELMACI G., İÇTEN O., ÖZER D., Ozgenc G., ERTEKİN Z., KÖSE D. A., PEKMEZ K., Zumreoglu-Karan B.  
CHEMNANOMAT, vol.7, no.12, pp.1340-1347, 2021 (SCI-Expanded)
- VI. **Boron doped cryptomelane as a highly efficient electrocatalyst for the oxygen evolution reaction**  
İÇTEN O., ÖZER D., Elmaci G.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.80, pp.39810-39821, 2021 (SCI-Expanded)
- VII. **Synthetic routes to manganese oxoborate and correlations between experimental parameters and properties**  
İÇTEN O., Ozgenc G., ÖZER D., Kose D., Elmaci G., ERTEKİN Z., PEKMEZ K., KARAN B.  
Ceramics International, vol.47, pp.17353-17360, 2021 (SCI-Expanded)
- VIII. **The Design of Gold Decorated Iron Borates (Fe<sub>3</sub>BO<sub>6</sub> and FeBO<sub>3</sub>) for Photothermal Therapy and Boron Carriers**  
İçten O.  
European Journal of Inorganic Chemistry, vol.2021, pp.1985-1992, 2021 (SCI-Expanded)
- IX. **Cover Picture: The Design of Gold Decorated Iron Borates (Fe<sub>3</sub>BO<sub>6</sub> and FeBO<sub>3</sub>) for Photothermal Therapy and Boron Carriers**  
İçten O.  
European Journal Of Inorganic Chemistry, no.21, pp.1-2, 2021 (SCI-Expanded)
- X. **Preparation of Gadolinium-Based Metal-Organic Frameworks and the Modification with Boron-10 Isotope: A Potential Dual Agent for MRI and Neutron Capture Therapy Applications**  
İÇTEN O.  
ChemistrySelect, vol.6, no.8, pp.1900-1910, 2021 (SCI-Expanded)
- XI. **Magnetite doped metal-organic framework nanocomposites: an efficient adsorbent for removal of bisphenol-A pollutant**  
İçten O., Özer D.  
New Journal of Chemistry, vol.45, no.4, pp.2157-2166, 2021 (SCI-Expanded)
- XII. **Zwitterionic amino acids as precursors for nonmetal cation pentaborate salts**  
Sizir U., Yurdakul O., Kose D. A., İÇTEN O.  
JOURNAL OF THE CHINESE CHEMICAL SOCIETY, vol.67, no.10, pp.1849-1855, 2020 (SCI-Expanded)

- XIII. **Facile synthesis of vanadium oxide supported on Fe<sub>2</sub>O<sub>3</sub>@SiO<sub>2</sub> composite: An effective catalyst for oxidative dehydrogenation reaction of tetrahydrocarbazole**  
ÖZER D., İÇTEN O., Uzgoren-Baran A., Oztas N. A.  
Ceramics International, vol.46, no.9, pp.13762-13767, 2020 (SCI-Expanded)
- XIV. **MIL-100(Fe) metal-organic framework catalyzed oxidation of phenol revisited: dark-Fenton activity of the catalyst**  
Özer D., İçten O., Altuntas-Oztas N., Zumreoglu-Karan B.  
RESEARCH ON CHEMICAL INTERMEDIATES, vol.46, no.1, pp.909-922, 2020 (SCI-Expanded)
- XV. **The mixed ligand complexes of Co(II), Ni(II), Cu(II) and Zn(II) with coumarilic acid/1,10-phenanthroline Synthesis, crystal characterization and biological applications**  
Dağlı Ö., KÖSE D. A., İÇTEN O., Avci G. A., ŞAHİN O.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.136, no.4, pp.1467-1480, 2019 (SCI-Expanded)
- XVI. **Gadolinium borate and iron oxide bioconjugates: Nanocomposites of next generation with multifunctional applications**  
İÇTEN O., KÖSE D. A., Matissek S. J., Misurelli J. A., Elsawa S. F., Hosmane N. S., Zumreoglu-Karan B.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.92, pp.317-328, 2018 (SCI-Expanded)
- XVII. **Fabrication and characterization of magnetite-gadolinium borate nanocomposites**  
İÇTEN O., KÖSE D. A., Zumreoglu-Karan B.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.726, pp.437-444, 2017 (SCI-Expanded)
- XVIII. **Magnetic nanocomposites of boron and vitamin C**  
İÇTEN O., HOSMANE N. S., KÖSE D. A., Zumreoglu-Karan B.  
NEW JOURNAL OF CHEMISTRY, vol.41, no.9, pp.3646-3652, 2017 (SCI-Expanded)
- XIX. **Production of Magnetic Nano-bioconjugates via Ball Milling of Commercial Boron Powder with Biomolecules**  
İÇTEN O., Hosmane N. S., Kose D. A., Zumreoglu-Karan B.  
ZEITSCHRIFT FÜR ANORGANISCHE UND ALLGEMEINE CHEMIE, vol.642, no.14, pp.828-832, 2016 (SCI-Expanded)
- XX. **Boron isotopic fractionation in aqueous boric acid solutions over synthetic minerals: Effect of layer and surface charge on fractionation factor**  
ELMACI G., İCTEN O., AY A. N., Zumreoglu-Karan B.  
APPLIED CLAY SCIENCE, vol.107, pp.117-121, 2015 (SCI-Expanded)
- XXI. **Electrolysis of coal slurries to produce hydrogen gas: Effects of different factors on hydrogen yield**  
Hesenov A., MERYEMOĞLU B., İÇTEN O.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.36, no.19, pp.12249-12258, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Hydrothermal Synthesis of MIL-53 Catalyst for Liquid Phase Oxidation of Phenol Fenolün Sıvı Faz Oksidasyonu için Mil-53 Katalizörünün Hidrotermal Sentezi**  
İÇTEN O., ÖZER D.  
Hacettepe Journal of Biology and Chemistry, vol.47, pp.217-223, 2019 (Peer-Reviewed Journal)
- II. **Solution Combustion Synthesis of Iron Oxyborate (Fe<sub>3</sub>BO<sub>6</sub>)**  
ÖZER D., İÇTEN O.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.6, pp.95-102, 2019 (Scopus)
- III. **KESİKSİZ SULU FAZ REFORMLAMA İLE LİGNOSELÜLOZİK BİYOKÜTLEDEN HİDROJEN GAZI ELDESİ**  
İÇTEN O., HASANOĞLU A.  
Çukurova Üniversitesi Fen ve Mühendislik Dergisi, vol.30, 2011 (Peer-Reviewed Journal)

## Books & Book Chapters

### I. Functional nanocomposites: promising candidates for cancer diagnosis and treatment

İçten O.

in: Synthetic Inorganic Chemistry New Perspectives, Ewan J.M. Hamilton, Editor, Elsevier Science, Oxford/Amsterdam, Amsterdam, pp.279-340, 2021

## Refereed Congress / Symposium Publications in Proceedings

### I. A potential agents for MRI and Photothermal Therapy: Polydopamine Coated Mn<sub>2</sub>O<sub>3</sub> and MnO<sub>2</sub> Nanoparticles

İçten O.

4th International Congress on Agriculture, Environment and Health, Aydın, Turkey, 20 - 22 May 2021, pp.142-143

### II. Preparation of Manganese-Containing Magnetic Nanocomposites for Biomedical Applications

İçten O.

2nd International Symposium on Applied Sciences and Engineering (ISASE2021), Erzurum, Turkey, 7 - 09 April 2021, pp.178

### III. Solution Combustion Synthesis of Magnetic Silica Supported Vanadium Oxide for Oxidative Dehydrogenation Reactions

ÖZER D., İÇTEN O., UZGÖREN BARAN A., ALTUNTAŞ ÖZTAŞ N.

II. Ulusal Anorganik Kimya Kongresi-Uluslararası Katılımlı, Turkey, 19 - 22 June 2019

### IV. Mangan Dioksit Mekanokimyasal Yöntemle Elementel Bor Katkılanması ve OER (Oxygen Evolution Reaction) Performansının İncelenmesi

UYSAL B. M., İÇTEN O., ÖZER D., ELMACI G., KARAN B.

VII. Ulusal Anorganik Kimya Kongresi-Uluslararası Katılımlı, Turkey, 19 - 22 June 2019

### V. Magnetic Nanocomposites of Boron for Biomedical Applications

İÇTEN O., KARAN B.

International Symposium on Boron, 17 - 19 April 2019

### VI. Çok Amaçlı Biyomedikal Uygulamalar için Demir Oksit-Gadolinium Borat Nanokompozitleri

İÇTEN O., HOSMANE N. S., ELSAWA S. F., MISURELLI J. F., KÖSE D. A., KARAN B.

29. Ulusal Kimya Kongresi, Ankara, Turkey, 10 - 14 September 2017

### VII. Iron Oxide Supported Vitamin C BorateCore Shell Nanostructures for Potential Bio Applications

İÇTEN O., KÖSE D. A., KARAN B.

12th International Conference on Materials Chemistry (MC12), York, Sierra Leone, 20 - 23 July 2015

### VIII. 1 10 Fenantrolin Nikotinamid ve N N Dietilnikotinamid Ligantlı Nikel II Pentaborate Komplekslerinin Sentezi Termal Özellikleri ve Yapısal Karakterizasyonu

İÇTEN O., YURDAKUL Ö., KÖSE D. A.

V. ULUSAL ANORGANİK KİMYA KONGRESİ, Turkey, 22 - 25 April 2015

### IX. Boron isotopic fractionation over synthetic minerals Effect of nanolayer surface charge on fractionation factor

ELMACI G., İÇTEN O., KARAN B.

1st International Symposium on Nanoparticles/Nanomaterials and Applications, 20 - 22 January 2014

### X. Mechanochemical Preparation of Surface Modified Boron Nanoparticles for Potential Biomedical Application

İÇTEN O., KÖSE D. A., HOSMANE N. S., KARAN B.

IMEBORON XV, 24 August - 28 January 2014

### XI. Non-Metal Cation Pentaborate Structures with 4-Amino Pyridine and 2-Amino Pyridine

Özer D., Köse D. A., İçten O.

EUROBORON6, Warszawa, Poland, 8 - 13 September 2013, pp.10-11

### XII. Hydrogen Production from Sorghum Biomass over Activated Carbon Supported Pt and Pt Ni

## Nanoparticle Catalysts by Aqueous Phase Reforming APR

İÇTEN O., HASANOĞLU A., erbatur o.

8th Nanoscience and Nanotechnology Conference, 25 - 29 June 2012

### Supported Projects

ÖZER D., İÇTEN O., AKBULUT SÖYLEMEZ M., Tunca E. T., DOĞAN Ö. D., Project Supported by Higher Education Institutions, Doğal Kaynak Sularından Tetrasiklin Uzaklaştırmada Kullanılacak Fonksiyonelleştirilmiş Manyetik Metal-Organik Kafes Yapı Kompozitlerinin Geliştirilmesi, 2021 - Continues

İçten O., Karan B., Project Supported by Higher Education Institutions, DEMİR BORATSERYUM OKSİT KATALİZÖR KARIŞIMLARININ HAZIRLANMASI VE BENZİL ALKOLÜN YÜKSELTGENMESİNDE KULLANILMASI, 2021 - 2022

Özer D., İçten O., TUBITAK Project, Mangan Dioksite Mekanokimyasal Yöntemle Elementel Bor Katkılanması ve Suyun Katalitik Yükseltgenmesinde Kullanılması, 2020 - 2021

İÇTEN O., Kobi, Prototip Vanadyum Redoks Akış Bataryası Üretimi, 2019 - 2020

İçten O., Karan B., ÖZER D., BOREN, Ulusal Bor Araştırma Enstitüsü Projesi, Enerji-Odaklı Uygulamalar için Nano-Mangan Oksiborat Sentezinin Geliştirilmesi, 2018 - 2020

İçten O., Özer D., Project Supported by Higher Education Institutions, Manyetik Metal-Organik Kafes Yapıların Sentezi (Fe<sub>3</sub>O<sub>4</sub>@Dex@MOF), Karakterizasyonu ve Oksidasyon Reaksiyonlarında Katalitik Etkinliğinin İncelenmesi, 2018 - 2020

İçten O., Karan B., Project Supported by Higher Education Institutions, Biyomolekül Bor ve Biyoborat Demir Oksit Nanosistemlerinin Hazırlanması ve Karakterizasyonu, 2015 - 2016

İçten O., Hasanoğlu A., Project Supported by Higher Education Institutions, Kesiksiz Sulu Faz Reformlama ile Lignoselülozik Biyokütleden Hidrojen Gazı Eldesi, 2010 - 2011

### Tasks In Event Organizations

İçten O., VII. Ulusal Anorganik Kimya Kongresi, Scientific Congress, Turkey, Haziran 2019

İçten O., 8th Nanoscience and Nanotechnology Conference, Scientific Congress, Ankara, Turkey, Haziran 2012

### Metrics

Publication: 39

Citation (WoS): 121

Citation (Scopus): 181

H-Index (WoS): 7

H-Index (Scopus): 8

### Congress and Symposium Activities

2nd International Symposium on Applied Sciences and Engineering (ISASE2021), Attendee, Erzurum, Turkey, 2021

VII. Ulusal Anorganik Kimya Kongresi-Uluslararası Katılımlı, Attendee, Çorum, Turkey, 2019

International Symposium on Boron, Attendee, Nevşehir, Turkey, 2019

The International Flow Battery Forum , Audience, Lausanne, Switzerland, 2018

29. Ulusal Kimya Kongresi, Audience, Ankara, Turkey, 2017

14th International Symposium on Applied Bioinorganic Chemistry, Audience, Toulouse, France, 2017

17th International Congress on Neutron Capture Therapy, Audience, Missouri, United States Of America, 2016

12th International Conference on Materials Chemistry , Audience, York, United Kingdom, 2015

V. Ulusal Anorganik Kimya Kogresi, Working Group, Mersin, Turkey, 2015

IMEBORON XV, Working Group, Praha, Czech Republic, 2014

1st International Symposium on Nanoparticles/Nanomaterials and Applications, Working Group, Lisbon, Portugal, 2014  
EoruBoron06, Working Group, Warszawa, Poland, 2013  
8th Nanoscience and Nanotechnology Conference, Working Group, Ankara, Turkey, 2012

## Scholarships

TÜBİTAK 2214-A Yurt Dışı Doktora Sırası Araştırma Bursu (Amerika), TÜBİTAK, 2016 - 2017  
TÜBİTAK 2211-A Yurt İçi Doktora Başarı Bursu, TÜBİTAK, 2013 - 2016  
ADANA TİCARET ODASI BURSUSU, Special Institutions and Organizations, 2004 - 2008

## Awards

İçten O., O. İcten, (2021), The Design of Gold Decorated Iron Borates ( $Fe_3BO_6$  and  $FeBO_3$ ) for Photothermal Therapy and Boron Carriers, European Journal of Inorganic Chemistry, Doi: 10.1002/ejic.202100217." çalışma "European Journal of Inorganic Chemistry" tarafından VIP (Very Important Paper) olarak seçilmiştir. Ayrıca aynı çalışma "European Journal of Inorganic Chemistry" dergisine kapak olmuştur., European Journal Of Inorganic Chemistry, May 2021  
İçten O., Award for Periodic Table 100th Year, VII. Ulusal Anorganik Kimya Kongresi (Uluslararası Katılımlı), June 2019  
İçten O., G. Elmacı, O. İcten, A.N. Ay, B. Zumreoglu-Karan tarafından 2015 yılında Applied Clay Science dergisinde yayımlanan "Boron isotopic fractionation in aqueous boric acid solutions over synthetic minerals: Effect of layer and surface charge on fractionation factor" Key Scientific Article olarak seçilmiştir., Advances In Engineering , June 2015  
İçten O., Fen-Edebiyat Fakültesi Birincisi (4.00 üzerinden 3.97 not ortalaması ile mezun), Çukurova Üniversitesi, June 2008  
İçten O., Fen-Edebiyat Fakültesi Kimya Bölüm Birincisi (4.00 üzerinden 3.97 not ortalaması ile mezun), Çukurova Üniversitesi, June 2008  
İçten O., Kimya Bölümü Yüksek Onur Öğrencisi, Çukurova Üniversitesi, September 2005

## Non Academic Experience

Halk Enerji (Teknoloji Teknoloji Yönetimi ve Danışmanlık A.Ş.)