

## **Assoc. Prof. OKAN İÇTEN**

### **Personal Information**

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**Address:** Hacettepe Üniversitesi Kimya Bölümü Anorganik Kimya A.B.D.

### **International Researcher IDs**

ScholarID: 0Pn8XRMAAAJ

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ScopusID: 52063253000

Yoksis Researcher ID: 160723

### **Education Information**

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji ve Nanotip 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 Nanotip 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., Elmacı 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., Elmacı 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., Elmacı 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 FUR 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>B<sub>0</sub><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 LİGNOSELÜZOZİK BİYOKÜLTLEDEN 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, Aydin, 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 Dioksite Mekanokimyasal Yöntemle Elementel Bor Katkılanması ve OER (Oxygen Evolution Reaction) Performansının İncelenmesi**  
UYDAL 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-Gadolinyum 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 Uzaklaştırılmada 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 Üretilimi, 2019 - 2020
- İçten O., Karan B., ÖZER D., BOREN, Ulusal Bor Araştırmaları 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 Yapılarının Sentezi (Fe3O4@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 Kongresi, 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), TUBITAK, 2016 - 2017

TÜBİTAK 2211-A Yurt İçi Doktora Başarı Bursu, TUBITAK, 2013 - 2016

ADANA TİCARET ODASI BURSU, Special Institutions and Organizations, 2004 - 2008

## Awards

İçten O., O. Icten, (2021), 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, 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. Icten, 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 Kimya Bölüm Birincisi (4.00 üzerinden 3.97 not ortalaması ile mezun), Çukurova Üniversitesi, June 2008

İçten O., Fen-Edebiyat Fakültesi 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 (Teknolojis Teknoloji Yönetimi ve Danışmanlık A.Ş.)