

Assoc. Prof. OKAN İÇTEN

Personal Information

Office Phone: [+90 312 297 7951](tel:+903122977951)

Fax Phone: [+90 312 299 2163](tel:+903122992163)

Email: okanicten@hacettepe.edu.tr

Web: <https://avesis.hacettepe.edu.tr/9872>

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

International Researcher IDs

ScholarID: 0Pn8XRMAAAJ

ORCID: 0000-0002-1658-1685

ScopusID: 52063253000

Yoksis Researcher ID: 160723

Education

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 Positions

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

Undergraduate

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

Supervised Theses

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

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Solution combustion synthesis of zinc borate nanoparticles: Its flame-retardant properties**
ÖZER D., İÇTEN O., ÇAĞLAYAN T., GOKSU K. K., ALTUNTAŞ ÖZTAŞ N.
JOURNAL OF MOLECULAR STRUCTURE, 2025 (SCI-Expanded)
- II. **Solvent-Free Oxidation of Benzyl Alcohol Over Mechanochemically Prepared Fe₃BO₆-CeO₂ Catalyst**
Turgut A. M., ÖZER D., İÇTEN O., Zumreoglu-Karan B.
CATALYSIS LETTERS, vol.153, no.6, pp.1719-1725, 2023 (SCI-Expanded)
- III. **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)
- IV. **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)
- V. **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)
- VI. **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)
- VII. **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)
- VIII. **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)
- IX. **The Design of Gold Decorated Iron Borates (Fe₃BO₆ and FeBO₃) for Photothermal Therapy and Boron Carriers**
İçten O.
European Journal of Inorganic Chemistry, vol.2021, pp.1985-1992, 2021 (SCI-Expanded)
- X. **Cover Picture: The Design of Gold Decorated Iron Borates (Fe₃BO₆ and FeBO₃) for Photothermal Therapy and Boron Carriers**
İçten O.
European Journal Of Inorganic Chemistry, no.21, pp.1-2, 2021 (SCI-Expanded)
- XI. **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)
- XII. **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)
- XIII. **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)
- XIV. **Facile synthesis of vanadium oxide supported on Fe₂O₃@SiO₂ 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)
- XV. **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)
- XVI. **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)
- XVII. **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)
- XVIII. **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)
- XIX. **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)
- XX. **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)
- XXI. **Boron isotopic fractionation in aqueous boric acid solutions over synthetic minerals: Effect of layer and surface charge on fractionation factor**
 ELMACI G., ICTEN O., AY A. N., Zumreoglu-Karan B.
 APPLIED CLAY SCIENCE, vol.107, pp.117-121, 2015 (SCI-Expanded)
- XXII. **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 (Fe₃B₀₆)**
 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 BİYOKÜTLEDEN HİDROJEN GAZI ELDESİ**
 İÇTEN O., HASANOĞLU A.

Books

- 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

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **A potential agents for MRI and Photothermal Therapy: Polydopamine Coated Mn₂O₃ and MnO₂ Nanoparticles**
İçten O.
4th International Congress on Agriculture, Environment and Health, Aydin, Turkey, 20 - 22 May 2021, pp.142-143, (Summary Text)
- 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, (Summary Text)
- 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, (Summary Text)
- 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, (Summary Text)
- V. **Magnetic Nanocomposites of Boron for Biomedical Applications**
İÇTEN O., KARAN B.
International Symposium on Boron, 17 - 19 April 2019, (Full Text)
- 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, (Summary Text)
- 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, (Full Text)
- 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, (Full Text)
- 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, (Full Text)
- 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, (Full Text)

- 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, (Summary Text)
- 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, (Full Text)

Funded Projects

İÇTEN O., Akbulut B. N., Project Supported by Higher Education Institutions, Bor Nitrür Kuantum Nokta Katkılı Mangan Oksit Katalizörlerin Hazırlanması ve Fotokatalistik Etkilerinin İncelenmesi, 2024 - Continues

İçten O., Elmacı G., TUBITAK Project, Su Kaynaklarında Organik Kirleticilerin Oksidatif Uzaklaştırılması Ve Katalitik Bozunma Mekanizma Çalışmaları İçin Çok Boyutlu MnO₂ Tabanlı Manyetik Kompozit Nanomaterialerin Geliştirilmesi, 2024 - 2026

ÖZER D., İÇTEN O., AKBULUT SÖYLEMEZ M., Tunca E. T., DOĞAN Ö. D., Project Supported by Higher Education Institutions, Doğal Kaynak Sularından Tetrasiklin Uzaklaşdırılarda Kullanılacak Fonksiyonelleştirilmiş Manyetik Metal-Organik Kafes Yapı Kompozitlerinin Geliştirilmesi, 2021 - 2025

İçten O., Project Supported by Higher Education Institutions, Kanser Teşhis ve Tedavisinde Kullanılmak Üzere Borat Tutuklanmış Manyetik Desteği olan Tabakalı Gadoliniyum Hidroksit Hibrit Malzemelerin Geliştirilmesi ve Sitotoksik Etkilerinin Belirlenmesi, 2022 - 2024

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 Dioksitemle Elementel Bor Katkıları ve Suyun Katalitik Yükseltgenmesinde Kullanılması, 2020 - 2021

İÇTEN O., Kobi, Prototip Vanadyum Redoks Akiş Bataryası Üretilimi, 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 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 Gazi Eldesi, 2010 - 2011

Roles 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: 40
Citation (WoS): 203
Citation (Scopus): 247
H-Index (WoS): 9
H-Index (Scopus): 9

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), 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 (Fe₃BO₆ and FeBO₃) 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, VI. 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 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 Yönetimi ve Danışmanlık A.Ş.), Ar-Ge Müdür Yardımcısı