

Prof. Derya TEKİN

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilim Dalı, Turkey 2005 - 2010

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilim Dalı, Turkey 1996 - 2000

Undergraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey 1988 - 1992

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Bacterial oxidation kinetics of Fe(II), Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilim Dalı, 2010

Postgraduate, Fosfat cevherinin HNO₃ çözeltilerindeki çözünme kinetiği üzerine ultrases enerjisinin etkisi, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği Anabilim Dalı, 2000

Research Areas

Chemical Engineering and Technology, Process and Reactor Design, Chemical Reaction Engineering, Metallurgical and Materials Engineering, Material science and engineering, Polymeric Materials, Nanomaterials, Engineering and Technology

Academic Titles / Tasks

Professor, Ataturk University, Mühendislik Fakültesi, Metalurji Ve Malzeme Mühendisliği, 2021 - Continues

Associate Professor, Ataturk University, Mühendislik Fakültesi, Metalurji ve Malzeme Mühendisliği, 2015 - Continues

Assistant Professor, Ataturk University, Mühendislik Fakültesi, Metalurji ve Malzeme Mühendisliği, 2014 - 2015

Instructor, Ataturk University, Mühendislik Fakültesi, Metalurji ve Malzeme Mühendisliği, 1996 - 2014

Academic and Administrative Experience

Courses

MALZEME (DR) DNS Danışmanlık, Doctorate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Polimer Teknolojileri ve Üretimi, Doctorate, 2022 - 2023, 2020 - 2021, 2019 - 2020, 2018 - 2019

Üretim Metalurjisi (YL) DNS Danışmanlık, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Fiziksel Kimya, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Metalurji ve Malzeme Mühendisliğinde Temel İlkeler ve Hesaplamalar, Postgraduate, 2022 - 2023, 2021 - 2022

SERAMİK VE KOMPOZİT MALZEMELER, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Uzmanlık Alan Dersi V, Doctorate, 2021 - 2022

Yarı İletken Nano Kompozit Malzemelerin Üretimi, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

KÜTLE VE ENERJİ DENKLİKLERİ, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

POLİMER MALZEMELER, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

SAYISAL YÖNTEMLER, Undergraduate, 2019 - 2020

KOROZYON VE KORUNMA, Undergraduate, 2019 - 2020

Uzmanlık Alan Dersi IV , Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

BİTİRME PROJESİ-I, Undergraduate, 2020 - 2021

BİTİRME PROJESİ II, Undergraduate, 2019 - 2020, 2018 - 2019

AKIŞKANLAR MEKANİĞİ, Undergraduate, 2020 - 2021, 2019 - 2020

Metalurji Malzeme Mühendisliği Seçmeli Tasarım I, Undergraduate, 2020 - 2021

Metalurji Malzeme Mühendisliği Seçmeli Tasarım II, Undergraduate, 2019 - 2020, 2018 - 2019

Advising Theses

Tekin D., Ag-Ni katkılı grafen aerojel- TiO₂ nanokompozit fotokatalizörlerin, fotokatalitik aktiviteleri, fotokorozyon ve antibakteriyel aktivitelerinin incelenmesi, Postgraduate, F.SEMA(Student), 2021

Tekin D., 3D HETEROJONKSİYON YAPILI METAL/PANI/TiO₂ (NT) NANOKOMPOZİT FOTOELEKTROTLARIN SENTEZİ VE ELEKTROKİMYASAL, FOTOELEKTROKİMYASAL VE FOTOKOROZYON ÖZELLİKLERİNİN İNCELENMESİ, Doctorate, D.BİRHAN(Student), 2021

Tekin D., PAN-rGO-TiO₂ ve PAN-rGO-ZnO nanokompozit fotoelektrotların sentezi, karakterizasyonu ve elektrokimyasal, termal ve fotokorozyon özelliklerinin incelenmesi, Postgraduate, H.ÖRNEK(Student), 2021

Tekin D., Grafen katkılı nanokompozit fotokatalizörlerin üretimi, karakterizasyonu, termal, fotokatalitik, antibakteriyel ve mekanik özelliklerinin incelenmesi, Postgraduate, D.BİRHAN(Student), 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Thermal, photocatalytic, and antibacterial properties of rGO/TiO₂/PVA and rGO/TiO₂/PEG composites**
Birhan D., Tekin D., Kızıldaş H.
POLYMER BULLETIN, vol.79, no.4, pp.2585-2602, 2022 (SCI-Expanded)
- II. **Preparation and characterization of recyclable Fe₃O₄@SiO₂@TiO₂ composite photocatalyst, and investigation of the photocatalytic activity**
Kızıldaş H., Tekin T., Tekin D.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.208, no.7, pp.1041-1053, 2021 (SCI-Expanded)
- III. **Synthesis, characterization of Fe₃O₄@SiO₂@ZnO composite with a core-shell structure and**

evaluation of its photocatalytic activity

Kızıldaş H., Tekin T., Tekin D.

JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.8, 2020 (SCI-Expanded)

- IV. **Synthesis and characterization of TiO₂ and Ag/TiO₂ thin-film photocatalysts and their efficiency in the photocatalytic degradation kinetics of Orange G dyestuff**
Tekin D., Tekin T., Kızıldaş H.
DESALINATION AND WATER TREATMENT, vol.198, pp.376-385, 2020 (SCI-Expanded)
- V. **Thermal, photocatalytic, and antibacterial properties of calcinated nano-TiO₂/polymer composites**
TEKİN D., Birhan D., KIZILTAŞ H.
MATERIALS CHEMISTRY AND PHYSICS, vol.251, 2020 (SCI-Expanded)
- VI. **Kinetic evaluation of ZnO/TiO₂ thin film photocatalyst in photocatalytic degradation of Orange G**
Tekin D., Kızıldaş H., Ungan H.
JOURNAL OF MOLECULAR LIQUIDS, vol.306, 2020 (SCI-Expanded)
- VII. **Photocatalytic degradation kinetics of Orange G dye over ZnO and Ag/ZnO thin film catalysts**
TEKİN D., TEKİN T., KIZILTAŞ H.
SCIENTIFIC REPORTS, vol.9, 2019 (SCI-Expanded)
- VIII. **Photocatalytic degradation of textile dyestuffs using TiO₂ nanotubes prepared by sonoelectrochemical method**
TEKİN D.
APPLIED SURFACE SCIENCE, vol.318, pp.132-136, 2014 (SCI-Expanded)
- IX. **Photocatalytic degradation kinetics of Congo Red dye in a sonophotoreactor with nanotube TiO₂**
Tekin D.
PROGRESS IN REACTION KINETICS AND MECHANISM, vol.39, no.3, pp.249-261, 2014 (SCI-Expanded)
- X. **The effect of temperature on rate of bacterial oxidation of Fe(II)**
TEKİN D., YÖRÜK S., BAYHAN Y. K.
BULGARIAN CHEMICAL COMMUNICATIONS, vol.46, no.1, pp.117-119, 2014 (SCI-Expanded)
- XI. **Kinetics of Bacterial Reduction of Hematite by Acidithiobacillus ferrooxidans-r4A1FC2B3**
Tekin D., Yörük S., Kocadağistan M. E.
ASIAN JOURNAL OF CHEMISTRY, vol.25, no.16, pp.8875-8878, 2013 (SCI-Expanded)
- XII. **Kinetics of Bacterial Reduction of Hematite by Acidithiobacillus ferrooxidans-r4A1FC2B3**
TEKİN D., Yoruk S., Kocadagistan E.
ASIAN JOURNAL OF CHEMISTRY, vol.25, no.16, pp.8875-8878, 2013 (SCI-Expanded)
- XIII. **Photocatalytic degradation kinetics of Reactive Black 5 (RB5) dyestuff on TiO₂ modified by pretreatment with ultrasound energy**
SAYGI B., TEKİN D.
REACTION KINETICS MECHANISMS AND CATALYSIS, vol.110, no.1, pp.251-258, 2013 (SCI-Expanded)
- XIV. **The bioleaching of hematite by Acidithiobacillus ferrooxidans r4A1FC2B3**
TEKİN D., YÖRÜK S., TEKİN T.
JOURNAL OF THE CHEMICAL SOCIETY OF PAKISTAN, vol.34, no.4, pp.920-922, 2012 (SCI-Expanded)
- XV. **DEGRADATION CI REACTIVE YELLOW 81 BY US/UV/ZNO HETEROGENEOUS OXIDATION PROCESS: EFFECT OF SYSTEM PARAMETERS**
EREN Z., ACAR F. N., TEKİN D.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.21, pp.3400-3406, 2012 (SCI-Expanded)
- XVI. **Effect of ultrasound on the dissolution kinetics of phosphate rock in HNO₃**
TEKİN T., TEKİN D., BAYRAMOĞLU M. R.
ULTRASONICS SONOCHEMISTRY, vol.8, no.4, pp.373-377, 2001 (SCI-Expanded)

Articles Published in Other Journals

- I. **Production, characterization of Fe₃O₄@CuO composite photocatalysts and determination of**

photocatalytic activity on Rhodamine B

Kızıldaş H., Tekin D.

Brilliant Engineering, vol.1, no.4, pp.26-29, 2020 (Peer-Reviewed Journal)

II. Preparation and Characterization of TiO₂@SiO₂-Ag Nanospheres Photocatalyst, and Investigation of Its Photocatalytic Activity on Methylene Blue

Tekin T., Tekin D., Kızıldaş H.

Journal of the Turkish Chemical Society Section B: Chemical Engineering, vol.1, no.1, pp.89-96, 2017 (Peer-Reviewed Journal)

III. TiO₂ ve AgS Katkılı TiO₂ Nanotüp Fotokatalizörlerinin Sentezlenmesi ve Karakterizasyonu

TEKİN T., TEKİN D., KIZILTAŞ H.

Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.31, pp.181-186, 2016 (Peer-Reviewed Journal)

IV. The Effect of pH on Rate of Bacterial Oxidation of Fe II by Acidithiobacillus ferrooxidans

TEKİN D., YÖRÜK S.

Journal of Selçuk University Natural and Applied Science, pp.774-780, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Mn Katkılı TiO₂ Nanotüp Fotokatalizörlerinin Sentezlenmesi ve Karakterizasyonu

Tekin T., Kızıldaş H., Tekin D.

MAS 5. Uluslararası Matematik-Mühendislik-Fen ve Sağlık Bilimleri Kongresi, Erzurum, Turkey, 2 - 05 May 2019, pp.390-395

II. PVA – TiO₂ NANOKOMPOZİTİNİN ÜRETİMİ, KARAKTERİZASYONU VE ANTİBAKTERİYEL ÖZELLİKLERİNİN İNCELEMESİ

TEKİN D., BİRHAN D., TEKİN T.

The International Conference of Materials and Engineering Technology (TICMET'xxl 9), 10 - 12 October 2019

III. r-GO /TiO₂ NANOKOMPOZİTİNİN ÜRETİMİ, KARAKTERİZASYONU VE SERTLİK ÖZELLİKLERİNİN İNCELENMESİ

TEKİN D., BİRHAN D., TEKİN T.

The International Conference of Materials and Engineering Technology (TICMET'xxl 9), 10 - 12 October 2019

IV. SiO₂@CuO Nanokompozit Fotokatalizörlerin Üretimi ve Karakterizasyonu

KIZILTAŞ H., TEKİN T., TEKİN D.

MAS 5. Uluslararası Matematik-Mühendislik-Fen ve Sağlık Bilimleri Kongresi, 2 - 05 May 2019

V. Çekirdek-Kabuk Yapılı Fonksiyonel NiO/SiO₂ Nanokompozit Fotokatalizörlerin Üretimi ve Karakterizasyonu

KIZILTAŞ H., TEKİN T., TEKİN D.

MAS 5. Uluslararası Matematik-Mühendislik-Fen ve Sağlık Bilimleri Kongresi, 2 - 05 May 2019

VI. Cu Katkılı TiO₂ Nanotüp Fotokatalizörlerin Sentezlenmesi ve Karakterizasyonu

Tekin T., Kızıldaş H., Tekin D.

MAS 5. Uluslararası Matematik-Mühendislik-Fen ve Sağlık Bilimleri Kongresi, Erzurum, Turkey, 2 - 05 May 2019, pp.384-389

VII. Synthesis and Characterization of Rgo/Tio₂/Pva Nanocomposite

TEKİN D., BİRHAN D., TEKİN T.

International Symposium on Applied Sciences and Engineering (ISASE2018), 26 - 28 November 2018

VIII. Synthesis and Characterization of Rgo/Tio₂/Peg Nanocomposite

TEKİN D., Birhan D., TEKİN T.

International Symposium on Applied Sciences and Engineering (ISASE2018), 26 - 28 November 2018

IX. Production and Characterization of TiO₂ and ZnS Doped TiO₂ Nanotube Photocatalysts

KIZILTAŞ H., TEKİN T., TEKİN D.

International Symposium on Applied Sciences and Engineering (ISESA2018), 26 - 28 November 2018

X. Synthesis of core-shell SiO₂/ZnO Nanoparticles and Determination of their Photocatalytic Activity

TEKİN T., TEKİN D., KIZILTAŞ H.

International Symposium on Applied Sciences and Engineering (ISESA2018), 26 - 28 November 2018

- XI. **Synthesis of core-shell SiO₂/TiO₂ Nanoparticles and Determination of their Photocatalytic Activity**
TEKİN T., TEKİN D., KIZILTAŞ H.
International Symposium on Applied Sciences and Engineering (ISESA2018), 26 - 28 November 2018
- XII. **Production and Characterization of TiO₂ and NiS Doped TiO₂ Nanotube Photocatalysts**
KIZILTAŞ H., TEKİN T., TEKİN D.
International Symposium on Applied Sciences and Engineering (ISESA2018), 26 - 28 November 2018
- XIII. **Fe₃O₄/SiO₂/ZnO Fotokatalizörlerinin Sentezlenmesi ve Fotokatalitik Aktivitelerinin Belirlenmesi**
TEKİN T., TEKİN D., KIZILTAŞ H.
13. Ulusal Kimya Mühendisliği Kongresi (UKMK-13), Turkey, 3 - 06 September 2018
- XIV. **Fe₃O₄/SiO₂/TiO₂ Fotokatalizörlerinin Sentezlenmesi ve Fotokatalitik Aktivitelerinin Belirlenmesi**
TEKİN T., TEKİN D., KIZILTAŞ H.
13. Ulusal Kimya Mühendisliği Kongresi (UKMK-13), Turkey, 3 - 06 September 2018
- XV. **TiO₂ ve TiO₂/Ag Nano Filmlerinin Üretilmesi, Karakterizasyonu ve Fotokatalitik Etkinlerinin Belirlenmesi**
TEKİN D., TEKİN T., KIZILTAŞ H.
13. Ulusal Kimya Mühendisliği Kongresi (UKMK-13), Turkey, 3 - 06 September 2018
- XVI. **Fe₃O₄/SiO₂/CdS Çekirdek-Kabuk Yapılı Fotokatalizörlerin Üretilmesi ve Fotokatalitik Aktivitelerinin İncelenmesi**
TEKİN D., TEKİN T., KIZILTAŞ H.
International Advanced Researches and Engineering Congress, 16 - 18 November 2017
- XVII. **Fe₃O₄/SiO₂/ZnO/Ag Fotokatalizörlerinin Sentezlenmesi ve Fotokatalitik Aktivitelerinin Belirlenmesi**
TEKİN D., TEKİN T., KIZILTAŞ H.
International Advanced Researches and Engineering Congress, 16 - 18 November 2017
- XVIII. **Fe₃O₄/SiO₂/TiO₂/Ag Fotokatalizörlerinin Sentezlenmesi ve Fotokatalitik Aktivitelerinin Belirlenmesi**
TEKİN D., TEKİN T., KIZILTAŞ H.
International Advanced Researches and Engineering Congress, 16 - 18 November 2017
- XIX. **Bi-component TiO₂-ZnO Nanocomposite Photocatalyst Synthesis, Characterization And Investigation Photocatalytic Activity**
YILMAZ H., TEKİN D.
13th Nanoscience and Nanotechnology Conference of Turkey (NANOTR-13), 22 - 25 October 2017
- XX. **Preparation and Characterization of Core-Shell ZnO/SiO₂ Nanospheres Photocatalyst**
TEKİN D., TEKİN T., KIZILTAŞ H.
International Conference on Advances and Innovations in Engineering (ICAIE), 10 - 12 May 2017
- XXI. **Preparation and Characterization of core-shell Ag/TiO₂ Nanospheres**
TEKİN D., TEKİN T., KIZILTAŞ H.
International Conference on Advances and Innovations in Engineering (ICAIE), 10 - 12 May 2017
- XXII. **Preparation and Characterization of TiO₂/SiO₂-Ag Nanospheres Photocatalyst, and Investigation of Its Photocatalytic Activity on Methylene Blue**
TEKİN T., TEKİN D., KIZILTAŞ H.
International Conference on Advances and Innovations in Engineering (ICAIE), 10 - 12 May 2017
- XXIII. **Preparation and Characterization of Core-Shell Fe₃O₄/SiO₂/TiO₂ Nanospheres Photocatalyst, and Investigation of Its Photocatalytic Activity on Methylene Blue**
TEKİN T., TEKİN D., KIZILTAŞ H.
International Conference on Advances and Innovations in Engineering (ICAIE), 10 - 12 May 2017
- XXIV. **TiO₂ ve AgS katkılı TiO₂ nanotüp fotokatalizörlerinin sentezlenmesi ve karakterizasyonu**
TEKİN T., TEKİN D., KIZILTAŞ H.
1st International Mediterranean SCIENCE AND ENGINEERING CONGRESS, 26 - 28 October 2016
- XXV. **Boyarmaddelerin Nanotüp TiO₂ Fotokatalizörü Üzerindeki Bozunmasında Kullanılan Kinetik Modeller**

TEKİN D., TEKİN T., KIZILTAŞ H.

1st International Mediterranean Science and Engineering Congress, 26 - 28 October 2016, pp.3996-4001

- XXVI. **TiO₂ Ag TiO₂ Zn TiO₂ İNCE FİLM FOTOKATALİZÖRLERİNİN ÜRETİMİ VE KARAKTERİZASYONU**
YILMAZ H., TEKİN D.

12. Ulusal Kimya Mühendisliği Kongresi, Turkey, 26 - 28 August 2016

- XXVII. **Degradation C I Reactive Yellow 81 by US UV ZnO Heterogeneous Oxidation Process Effect of System Parameters**

Eren Z., Acar F. N., Tekin D.

VI. International Symposium on Ecology and Environmental Problems, Antalya, Turkey, 17 September - 20 November 2011

- XXVIII. **Bacterial Leaching of Iron Ore by Acidithiobacillus Ferrooxidans**

Tekin D., Yörük S., Eren Z.

VI. International Symposium on Ecology and Environmental Problems, Antalya, Turkey, 17 - 20 November 2011

- XXIX. **Fe II nin Bakteriyel Oksidasyonu**

TEKİN D., YÖRÜK S.

25. Uluslararası Katılımlı Ulusal Kimya Kongresi, Turkey, 27 June 2011 - 02 November 2002

- XXX. **Ultrases Enerjisinin Fosfat Cevherinin Asidik Ortamdaki Çözünürlüğü Üzerine Etkisi**

TEKİN D., TEKİN T., YETİM T.

I. Ulusal Çevre Sorunları Sempozyumu, Turkey, 1 - 04 October 2002

Supported Projects

TEKİN D., KIZILTAŞ H., BİRHAN D., Project Supported by Higher Education Institutions, TiO₂/GA/Ag, TiO₂/GA/Ni, TiO₂/GA/Cd ve TiO₂/GA/B nanokompozit fotokatalizörlerin tezhölçekli benchscale tübiler reaktörlerde fotokatalitik aktivitelerinin incelenmesi, 2020 - 2022

TEKİN D., KIZILTAŞ H., Project Supported by Higher Education Institutions, POLİMER DESTEKLİ (TiO₂/PVA, TiO₂/PP, TiO₂/PMMA, VE TiO₂/GRAFEN/PEG) NANOKOMPOZİT KATALİZÖRLERİN HAZIRLANMASI VE KARAKTERİZASYONU, 2016 - 2018

Tekin T., Tekin D., TUBITAK Project, Farklı Nano-Film Fotokatalizörleri (TiO₂, ZnO, TiO₂/ZnO, Ag/TiO₂, Ag/ZnO) ile Kaplı Fotoreaktörlerde Boyarmaddelerin Fotokatalitik Bozunma Kinetiği, 2015 - 2017

TEKİN D., KIZILTAŞ H., Project Supported by Higher Education Institutions, AG/TiO₂ İNCE FİLM FOTOKATALİZÖRÜNÜN HAZIRLANMASI, KARAKTERİZASYONU VE FOTOKATALİTİK AKTİVİTESİ ÜZERİNE ULTRASES ENERJİSİNİN ETKİSİ, 2014 - 2016

Scientific Refereeing

TUBITAK Project, 1002 - Quick Support Program, Ataturk University, Turkey, April 2023

Metrics

Publication: 50

Citation (WoS): 304

Citation (Scopus): 321

H-Index (WoS): 9

H-Index (Scopus): 8