

## Assoc. Prof. Hüseyin ELÇİÇEK

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: D-5010-2014

ScopusID: 56263024500

Yoksis Researcher ID: 173760

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Kimya Mühendisliği, Turkey 2012 - Continues

Doctorate, Yildiz Technical University, Naval Architecture And Maritime Faculty, Gemi İnşaatı Ve Gemi Makineleri Bölümü, Turkey 2014 - 2020

Postgraduate, Yildiz Technical University, Naval Architecture And Maritime Faculty, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği, Turkey 2012 - 2014

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği, Turkey 2009 - 2012

Undergraduate, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 2006 - 2010

Undergraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey 2005 - 2009

### Research Areas

Sea pollution, Renewable energy, Separation Operations, Energy, Fluid Mechanics, Hydrogen Technologies and Fuel Cells, Alternate Fuels and Energy Resources, Ship Machines, Chemical and Electrochemical Properties, Corrosion and Corrosion Protection, Fuel Cells, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Naval Architecture And Maritime Faculty, 2023 - Continues

Assistant Professor, Sakarya University Of Applied Sciences, 2020 - 2023

Research Assistant, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği, 2013 - 2020

Research Assistant, Bartın University, 2010 - 2013

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

1. **Bibliometric analysis on hydrogen and ammonia: a comparative evaluation for achieving IMO's decarbonization targets**

ELÇİÇEK H.

International Journal of Environmental Science and Technology, vol.21, no.10, pp.7039-7060, 2024 (SCI-Expanded)

- II. **Enhancing the efficiency of sodium borohydride hydrolysis with a novel CoB-Triton catalyst**  
Kaya C., ÖZDEMİR J. H., ELÇİÇEK H., ÖZDEMİR O. K., KÖKKÜLÜNK G., ÜNLÜGENÇOĞLU K.  
International Journal of Hydrogen Energy, vol.51, pp.489-503, 2024 (SCI-Expanded)
- III. **Scientific awareness of marine accidents in Europe: A bibliometric and correspondence analysis**  
Demirci S. E., ELÇİÇEK H.  
Accident Analysis and Prevention, vol.190, 2023 (SSCI)
- IV. **Analysis of causal relations of marine accidents during ship navigation under pilotage: A DEMATEL approach**  
Demirci S. E., Canımoğlu R., ELÇİÇEK H.  
Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, vol.237, no.2, pp.308-321, 2023 (SCI-Expanded)
- V. **Determination of critical catalyst preparation factors (cCPF) influencing hydrogen evolution**  
ELÇİÇEK H.  
International Journal of Hydrogen Energy, vol.48, no.10, pp.3824-3837, 2023 (SCI-Expanded)
- VI. **Prediction of electrocatalyst performance of Pt/C using response surface optimization algorithm-based machine learning approaches**  
Elcicek H., ÖZDEMİR O. K.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.46, no.15, pp.21353-21372, 2022 (SCI-Expanded)
- VII. **Preparation of highly efficient NiB catalyst via triton-stabilized for alkaline NaBH<sub>4</sub> hydrolysis reaction**  
Elcicek H., Erol M., Özdemir O. K.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.45, no.10, pp.14644-14657, 2021 (SCI-Expanded)
- VIII. **Optimization of synthesis parameters for catalytic performance of Ni-B catalysts using response surface methodology**  
TÜRKCAN J. H., Elçiçek H., ÖZDEMİR O. K.  
International Journal of Hydrogen Energy, vol.46, no.11, pp.7903-7911, 2021 (SCI-Expanded)
- IX. **Optimization of catalyst preparation conditions for hydrogen generation in the presence of Co-B using taguchi method**  
Sağır K., Elçiçek H., ÖZDEMİR O. K.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.7, pp.5689-5698, 2021 (SCI-Expanded)
- X. **On non-axisymmetric flow structures of graphene suspensions in Taylor–Couette reactors**  
Elcicek H., Guzel B.  
International Journal of Environmental Science and Technology, vol.17, no.7, pp.3475-3484, 2020 (SCI-Expanded)
- XI. **Effect of shear-thinning behavior on flow regimes in Taylor–Couette flows**  
Elçiçek H., GÜZEL B.  
Journal of Non-Newtonian Fluid Mechanics, vol.279, 2020 (SCI-Expanded)
- XII. **LEACHING KINETICS OF ULEXITE ORE IN AQUEOUS MEDIUM AT DIFFERENT CO<sub>2</sub> PARTIAL PRESSURES**  
ELÇİÇEK H., KOCAKERİM M. M.  
BRAZILIAN JOURNAL OF CHEMICAL ENGINEERING, vol.35, no.1, pp.111-122, 2018 (SCI-Expanded)
- XIII. **Corrosion Behavior of in-Situ AlB<sub>2</sub>/Al-Cu Metal Matrix Composite**  
Elçiçek H., Savaş Ö., Aydın Z., Özdemir O., Kayikci R.  
ACTA PHYSICA POLONICA A, vol.129, pp.661-664, 2016 (SCI-Expanded)
- XIV. **The Use of Artificial Neural Network for Prediction of Dissolution Kinetics**  
Elçiçek H., Akdoğan E., Karagoz S.  
SCIENTIFIC WORLD JOURNAL, 2014 (SCI-Expanded)

## Articles Published in Other Journals

- I. **An evaluation of the effects of human factors on potential ship accidents under pilotage**  
DEMİRCİ S. M. E., CANIMOĞLU R., ELÇİÇEK H.  
MARINE SCIENCE AND TECHNOLOGY BULLETIN, vol.11, no.1, pp.76-87, 2022 (Peer-Reviewed Journal)
- II. **Modeling of Diesel Engine Performance and Emission Using Artificial Neural Networks**  
KAYA C., ELÇİÇEK H.  
Journal of Marine and Engineering Technology, vol.1, no.1, pp.24-33, 2021 (Scopus)
- III. **An Overview of Environmental Impacts and Treatment Systems of Ship Ballast Waters**  
Doğru M., DEMİRCİ S. M. E., CANIMOĞLU R., ELÇİÇEK H.  
Journal of Marine and Engineering Technology, 2021 (Peer-Reviewed Journal)
- IV. **Optimization of Ni-B Catalyst with Response Surface Methodology in Hydrogen Production**  
ELÇİÇEK H.  
BOR DERGİSİ, vol.6, no.1, pp.216-226, 2021 (Peer-Reviewed Journal)
- V. **TC-UV Reactors Evaluated as an Alternative Option in Treatment of Ballast Water**  
ELÇİÇEK H., GÜZEL B.  
Journal of Eta Maritime Science, vol.8, no.1, pp.10-21, 2020 (ESCI)
- VI. **Friction Behaviours of Lubrication Oil Contaminated With Cooling Water in Marine Diesel Engines**  
Aydın Z., Elçiçek H., Kökkülünk G., Okumuş F.  
INTERNATIONAL JOURNAL OF ADVANCES ON AUTOMOTIVE AND TECHNOLOGY, vol.1, pp.98-103, 2018 (Peer-Reviewed Journal)
- VII. **Taguchi Yaklaşımı ile içten yanmalı motorlarda segman-silindir gömleği arasındaki sürtünme katsayısının deneysel olarak incelenmesi**  
SAVAŞ Ö., ELÇİÇEK H., AYDIN Z.  
JOURNAL OF ETA MARITIME SCIENCE, vol.6, no.1, pp.17-25, 2018 (Peer-Reviewed Journal)
- VIII. **Experimental Investigation of friction coefficient between Piston ring-Cylinder Liner of Internal Combustion Engines by Taguchi Method**  
Savaş Ö., Elçiçek H., Aydın Z.  
JOURNAL OF ETA MARİTİME SCİENCE, vol.6, no.1, 2018 (Peer-Reviewed Journal)
- IX. **Türkiye açısından balast suyu ve filtrasyonunun önemi**  
ELÇİÇEK H.  
Denizcilik Dergisi, 2017 (Non Peer-Reviewed Journal)
- X. **DETECTION OF FECAL INDICATOR BACTERIA IN SHIP BALLAST WATER**  
ELÇİÇEK H., ÇAKMAKCI M.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BİLİMLERİ DERGİSİ, vol.34, no.3, pp.307-315, 2016 (ESCI)
- XI. **Effect of Ballast Water on Marine and Coastal Ecology**  
ELÇİÇEK H., Parlak A., Çakmakçı M.  
Journal of Selçuk University Natural and Applied Science, 2013 (Peer-Reviewed Journal)
- XII. **Crystallization Behaviour of PET**  
Yaraş A., ELÇİÇEK H.  
BAÜ Fen Bil. Enst. Dergisi, vol.13, no.1, pp.26-35, 2011 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Optimizing Pt/C Electrocatalyst Performance with Surfactant Modification: A Comparative Analysis**  
ELÇİÇEK H., ÖZDEMİR J. H., ÖZDEMİR O. K., AKKAŞ N.  
The Seventh International Hydrogen Technologies Congress (IHTEC-2023), Sakarya, Turkey, 10 - 12 May 2023
- II. **Investigating the Effect of Surfactants on the Electrochemical Behavior of Pt/C Electrocatalysts**  
ELÇİÇEK H.

2nd International Conference on Scientific and Academic Research ICSAR 2023, Turkey, 14 March 2023

- III. **Effective Hydrolysis of Alkaline Sodium Borohydride: CoB-Triton Catalysts**  
KAYA C., ÖZDEMİR J. H., ELÇİÇEK H., ÖZDEMİR O. K., KÖKKÜLÜNK G., ÜNLÜGENÇOĞLU K.  
23rd World Hydrogen Energy Conference, Turkey, 26 June 2022
- IV. **EFFECTIVE HYDROLYSIS OF ALKALINE SODIUM BOROHYDRIDE: CoB-TRITON CATALYST**  
Kaya C., Türkcan J. H., ELÇİÇEK H., ÖZDEMİR O. K., KÖKKÜLÜNK G., ÜNLÜGENÇOĞLU K.  
23rd World Hydrogen Energy Conference: Bridging Continents by H<sub>2</sub>, WHEC 2022, İstanbul, Turkey, 26 - 30 June 2022, pp.580-582
- V. **Examination of Human Factors on Potential Ship Accidents under Pilotage**  
DEMİRCİ S. M. E., CANIMOĞLU R., ELÇİÇEK H.  
4th Global Conference on Innovation in Marine Technology and the Future of Maritime Transportation, İstanbul, Turkey, 18 - 19 November 2021
- VI. **ENHANCED CATALYTIC ACTIVITY OF SURFACTANT ASSISTED Ni B CATALYSIS FOR HYDROGEN GENERATION**  
ELÇİÇEK H.  
4th International Conference on Engineering Technologies, 19 - 21 November 2020
- VII. **The Investigation of Improvement with Tall Oil Fatty Acid of Negative Effects Through Diesel Oil Mixed with Lubricating Oil in Marine Diesel Generators**  
Kaya C., Sert O., Elçiçek H., Aydın Z., Kökkülünk G.  
III. GLOBAL CONFERENCE ON INNOVATION IN MARINE TECHNOLOGY AND THE FUTURE OF MARITIME TRANSPORTATION, İzmir, Turkey, 18 - 19 April 2019, pp.462-472
- VIII. **The Investigation of Improvement with Tall Oil Fatty Acid of Negative Effects Through Diesel Oil Mixed with Lubricating Oil in Marine Diesel Generators**  
KAYA C., SERT O., ELÇİÇEK H., AYDIN Z., KÖKKÜLÜNK G.  
III. GLOBAL CONFERENCE ON INNOVATION IN MARINE TECHNOLOGY AND THE FUTURE OF MARITIME TRANSPORTATION, 18 - 19 April 2019
- IX. **LIFE CYCLE COST ANALYSIS (LCCA) FOR MICROALGAE PRODUCTION: A CASE STUDY OF PILOT SCALE APPLICATION**  
KÖROĞLU E. O., Elçiçek H., CİVELEK H., ÖZKAYA B., DEMİR A.  
7th Global Conference on Global Warming (GCGW-2018), İzmir, Turkey, 24 - 28 June 2018
- X. **Experimental investigation of the hydrophobicity on deposition velocity**  
GÜZEL B., ELÇİÇEK H.  
4th International Conference on Engineering and Natural Sciences, 2 - 06 May 2018
- XI. **ANALYSIS OF THE FRICTION FORCES BETWEEN PISTON RING-CYLINDER LINER PAIRS ON MARINE DIESEL ENGINES USING EMULSIFIED FUEL**  
OKUMUŞ F., KÖKKÜLÜNK G., AYDIN Z., ELÇİÇEK H.  
3rd INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, İstanbul, Turkey, 19 December 2017, pp.321-327
- XII. **Experimental investigation of the effects of biofouling on ship drag**  
GÜZEL B., ELÇİÇEK H.  
3th International Conference on Engineering and Natural Science, Budapest, Hungary, 03 May 2017, pp.224
- XIII. **FLUE GAS DESULFURIZATION BY ULEXITE MINERAL AND OPTIMIZATION OF WORKING PARAMETERS**  
ELÇİÇEK H., KOCAKERİM M. M., ÇOPUR M.  
INTERNATIONAL CONFERENCE ON ENERGY AND THERMAL ENGINEERING, İstanbul, Turkey, 25 April 2017
- XIV. **The Effects of Contaminations of Heavy Fuel Oil with Cylinder Oil on Wear Characteristic**  
SAVAŞ Ö., PARLAK A., ELÇİÇEK H.  
6th International Advances in Applied Physics and Materials Science, 01 June 2016
- XV. **OXIDATION BEHAVIOR OF IN-SITU SiC REINFORCED COMPOSITE MATERIAL**  
ELÇİÇEK H., SAVAŞ Ö., AVCI A., AYDIN Z.  
6th International Advances in Applied Physics and Materials Science, 01 June 2016
- XVI. **Investigation of the Membrane Fouling Characterization for the Microfiltration Membrane using**

### **Ballast Water Treatment**

ELÇİÇEK H., PARLAK A., ÇAKMAKCI M., SAVAŞ Ö.

International Conference on Engineering and Natural Sciences (ICENS) 2016, 24 - 28 May 2016

- XVII. **Investigation of Membrane Fouling Characterization for the Microfiltration Membrane using Ballast Water Treatment**  
ELÇİÇEK H., PARLAK A., ÇAKMAKCI M., SAVAŞ Ö.  
2nd International Conference on Engineering and Natural Sciences, 24 - 28 May 2016
- XVIII. **INVESTIGATION OF SURFACE MORPHOLOGY AND ELECTROCHEMICAL CORROSION BEHAVIOUR OF ALUMINIUM COMPOSITES REINFORCED WITH HIGH ASPECT RATIO BORIDES**  
ELÇİÇEK H., SAVAŞ Ö., KAYIKCI R.  
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016
- XIX. **Optimization of Dissolution of Colemanite in Water Saturated with Flue Gas**  
ELÇİÇEK H., KOCAKERİM M. M., ÇOPUR M.  
International Conference on Natural Science and Engineering, 01 April 2016
- XX. **MODELING, SIMULATION AND ANALYSIS OF A NONLINEAR HALF MODEL SHIP MAIN ENGINE SYSTEM USING BOND GRAPH MODELING APPROACH**  
DEMİREL H., ÜNLÜGENÇOĞLU K., ELÇİÇEK H., Su M. E., ALARÇIN F.  
61st The IIER International Conference, Osaka, Japan, 16 February 2016, pp.30-34
- XXI. **Modelling and Simulation of Main Engine Vibration using Bond Graph**  
SU M. E., Elçiçek H., Alarçin F.  
7th International Advanced Technologies Symposium, 01 November 2013, pp.39-42
- XXII. **An Investigation and Comparison on Energy Efficiency Design Index (EEDI) and Energy Efficiency Operational Indicator (EEOI) of Some Ships**  
Alvar M., Elçiçek H., Aydın Z., Duranay A., Saral H., ÇELEBİ U. B.  
17th International Symposium on Environmental Pollution and Its Impact on Life in the Mediterranean Region, MESAEP-2013, 01 September 2013
- XXIII. **Balast Suyunun Çevresel Etkileri**  
ELÇİÇEK H., Parlak A., Aydın Z.  
Su ve Biyolojik Çeşitlilik Sempozyumu, 01 May 2013
- XXIV. **Examination of Dissolution Kinetics of Ulexite Mineral Under Pressure and in Water Saturated with Carbondioxide**  
ELÇİÇEK H., Kocakerim M. M.  
8th International Industrial Minerals Symposium, 01 November 2012
- XXV. **Corrosion problems and cathodic protection applications in navy industry**  
ELÇİÇEK H., Karaoglanli A. C., Demirel B.  
6th International Advanced Technologies Symposium, 01 May 2011, pp.436-441
- XXVI. **Gemi ve Yat Endüstrisinde Kompozit Malzemelerin Kullanımı**  
ELÇİÇEK H., KARAOĞLANLI A. C., DEMİREL B.  
4. Mühendislik ve Teknoloji Sempozyumu, Turkey, 28 - 29 April 2011
- XXVII. **Usage of composite materials in the marine and yacht industry**  
ELÇİÇEK H., Karaoğlanlı C., Demirel B.  
4th Engineering and Technology symposium, 2011, 01 April 2011
- XXVIII. **Baca Gazındaki Karbondioksitin Kolemanitle Stabilizasyonu**  
Çopur M., ELÇİÇEK H.  
9. Ulusal Kimya Mühendisliği Kongresi, 01 June 2010

### **Supported Projects**

Kökkülünk G., Özdemir O. K., Elçiçek H., Karagöz Y., TUBITAK Project, Gemilerde Sıfır Karbon Kapsamında Motora Entegre

Hidrojen Üretim Sistemi Uygulaması , 2022 - 2025

Torpi H., Gonca G., Elçiçek H., Şahin B., TUBITAK Project, Hidrojen-amonyak karışımlarıyla çalıştırılan bir dizel motora mikrodalga uygulamasının ve emisyonların hidrojen peroksit karışımlarıyla oksidasyonunun motorun emisyon ve performans karakteristiklerine etkilerinin incelenmesi, 2022 - 2025

Özdemir J. H., Elçiçek H., Özdemir O. K., Akkaş N., Project Supported by Higher Education Institutions, Pt katalizörlerin elektrokimyasal performansına iyonik olmayan yüzey aktif maddelerinin etkisinin incelenmesi, 2022 - 2024

Kökkülünk G., Bayar H., Elçiçek H., Gonca G., Kaya C., Sönmez H. İ., Okumuş F., Project Supported by Higher Education Institutions, Dizel motorlarda atık lastiklerden elde edilen pirolitik yakıt ile atık kızartma yağı biyodizeli karışımlarının performans ve emisyonlara etkilerinin deneysel olarak incelenmesi, 2021 - 2022

KÖKKÜLÜNK G., ERGENÇ A. T., ELÇİÇEK H., AYDIN Z., SERT O., OKUMUŞ F., KAYA A., SAFA A., Kaya C., Project Supported by Higher Education Institutions, Uluslararası emisyon standartlarına uyum için gezinti ve balıkçı tekne motorlarında emülsife yakıt kullanımının deneysel olarak araştırılması, 2018 - 2020

ELÇİÇEK H., Industrial Thesis Project, Gemi Balast Suyu Arıtma Sistemi Tasarımı ve İmalatı, 2015 - 2017

ELÇİÇEK H., ÖZKAYA B., Industrial Thesis Project, Mikroalg Kültürünün Sürdürülebilir Enerji Üretimi ve Sera Gazı Mitigasyonunda Kullanımı, 2013 - 2015

Şahin B., Üst Y., Gonca G., Elçiçek H., Kökkülünk G., TUBITAK Project, Miller Çevrimiyle Çalışan Bir Dizel motora Su Buharı Enjeksiyonu EGR uygulamasının NOx Emisyonlarına ve Performansa Etkilerinin Teorik ve Deneysel Olarak İncelenmesi, 2011 - 2014

ELÇİÇEK H., TUBITAK Project, Termik Santral Baca Gazlarındaki CO2 ve SO2nin Kullanılmayan ve/veya Satılmayan Üleksit ile Giderilebilirliğinin Araştırılması (Bursiyer), 2009 - 2011

## Metrics

Publication: 56

Citation (WoS): 40

Citation (Scopus): 117

H-Index (WoS): 3

H-Index (Scopus): 7

## Non Academic Experience

UNIKAL Kalibrasyon