

## Asst. Prof. ZAFER ÇIPLAK

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Ankara University, Institute Of Science, Turkey 2013 - 2020

Postgraduate, Ankara University, Institute Of Science, Turkey 2010 - 2013

Undergraduate, Ankara University, Faculty Of Engineering, Department Of Chemistry Engineering, Turkey 2005 - 2010

### Dissertations

Doctorate, Grafen temelli nanokompozitlerin süperkapasitör uygulamaları için performanslarının incelenmesi, Ankara University, Institute Of Science, 2020

Postgraduate, Grafen temelli polianilin gümüş nanotanecek nanokompozitlerinin sentez ve karakterizasyonu, Ankara University, Institute Of Science, 2013

### Research Areas

Chemical Engineering and Technology, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Sivas Cumhuriyet University, Mühendislik Fakültesi, Kimya Mühendisliği, 2020 - Continues

Research Assistant, Ankara University, Faculty Of Engineering, Department Of Chemistry Engineering, 2013 - 2019

### Courses

Enstrümental Analiz Laboratuvarı, Undergraduate, 2020 - 2021

Mukavemet, Undergraduate, 2020 - 2021

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

- Graphene oxide/polyaniline/silver nanocomposite synthesis and photothermal performance**  
YÜREKLİ BAYAR E., GETİREN B., SOYSAL F., ÇIPLAK Z., YILDIZ N., BAYRAKTAR E.  
Materials Research Bulletin, vol.166, 2023 (SCI-Expanded)

- II. **Nitrogen-doped graphene quantum dots/co-doped PANI binary nanocomposites as high-performance supercapacitor electrode materials**  
Getiren B., Altınışık H., ÇIPLAK Z., SOYSAL F., YILDIZ N.  
Synthetic Metals, vol.298, 2023 (SCI-Expanded)
- III. **Preparation, Characterization, and Application of Metal Oxide-Doped Zeolitic Imidazolate Framework**  
Kümbetlioğlu F., OSKAY K. O., ÇIPLAK Z., ATEŞ A.  
ACS Omega, vol.8, no.30, pp.27650-27662, 2023 (SCI-Expanded)
- IV. **Ag@Fe<sub>3</sub>O<sub>4</sub> nanoparticles decorated NrGO nanocomposite for supercapacitor application**  
ÇIPLAK Z., YILDIZ N.  
Journal of Alloys and Compounds, vol.941, 2023 (SCI-Expanded)
- V. **N-doped reduced graphene oxide/MnO<sub>2</sub>/co-doped polyaniline ternary nanocomposites for electrochemical energy storage applications**  
Getiren B., Altınışık H., SOYSAL F., ÇIPLAK Z., YILDIZ N.  
Journal of Electroanalytical Chemistry, vol.932, 2023 (SCI-Expanded)
- VI. **Energy Storage Performance of Nitrogen Doped Reduced Graphene Oxide/Co-Doped Polyaniline Nanocomposites**  
Altınışık H., Getiren B., ÇIPLAK Z., SOYSAL F., YILDIZ N.  
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.33, no.2, pp.353-367, 2023 (SCI-Expanded)
- VII. **Fabrication of polypyrrole enveloped reduced graphene oxide/iron oxide and determination of its photothermal properties**  
Soysal F., Ciplak Z., Getiren B., Gokalp C., Yildiz N.  
MATERIALS RESEARCH BULLETIN, vol.150, 2022 (SCI-Expanded)
- VIII. **Processable GO-PANI Nanocomposite for Supercapacitor Applications**  
ÇIPLAK Z.  
JOURNAL OF ELECTRONIC MATERIALS, vol.51, pp.1077-1088, 2022 (SCI-Expanded)
- IX. **An anticancer drug loading and release study to ternary GO-Fe<sub>3</sub>O<sub>4</sub>-PPy and Fe<sub>3</sub>O<sub>4</sub>@PPy-NGQDs nanocomposites for photothermal chemotherapy**  
ATİLA DİNÇER C., Getiren B., Gokalp C., ÇIPLAK Z., KARAKEÇİLİ A., YILDIZ N.  
COLLOIDS AND SURFACES A-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.633, 2022 (SCI-Expanded)
- X. **Immobilization of Candida antarctica Lipase on Nanomaterials and Investigation of the Enzyme Activity and Enantioselectivity**  
Coskun G., Ciplak Z., Yildiz N., Mehmetoglu U.  
APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, vol.193, no.2, pp.430-445, 2021 (SCI-Expanded)
- XI. **Simultaneous biosynthesis of reduced graphene oxide-Ag-Cu<sub>2</sub>O nanostructures by lichen extract for catalytic reduction of textile dyes**  
Ciplak Z., Getiren B., Gokalp C., Dincer C. A., Yildiz A., Yildiz N.  
KOREAN JOURNAL OF CHEMICAL ENGINEERING, vol.37, no.12, pp.2216-2224, 2020 (SCI-Expanded)
- XII. **Green preparation of ternary reduced graphene oxide-au@polyaniline nanocomposite for supercapacitor application**  
Ciplak Z., Yildiz A., Yildiz N.  
JOURNAL OF ENERGY STORAGE, vol.32, 2020 (SCI-Expanded)
- XIII. **Photoluminescence, photothermal and magnetic properties of nitrogen doped graphene quantum dots based ternary nanocomposite**  
Gokalp C., Ciplak Z., Getiren B., Yildiz N.  
COLLOIDS AND SURFACES A-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.605, 2020 (SCI-Expanded)
- XIV. **NIR-responsive Fe<sub>3</sub>O<sub>4</sub>@PPy nanocomposite for efficient potential use in photothermal therapy**  
Getiren B., Ciplak Z., Gokalp C., Yildiz N.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.137, no.44, 2020 (SCI-Expanded)
- XV. **Novel approach in synthesizing ternary GO-Fe<sub>3</sub>O<sub>4</sub>-PPy nanocomposites for high Photothermal performance**

- Getiren B., Ciplak Z., Gokalp C., Yildiz N.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.137, no.26, 2020 (SCI-Expanded)
- XVI. **One-step hydrothermal synthesis of nitrogen doped reduced graphene oxide-silver nanocomposites: Catalytic performance**  
SOYSAL F., Ciplak Z., Gokalp C., Getiren B., Yildiz N.  
APPLIED ORGANOMETALLIC CHEMISTRY, vol.34, no.5, 2020 (SCI-Expanded)
- XVII. **Green synthesis of reduced graphene oxide-AgAu bimetallic nanocomposite: Catalytic performance**  
Ciplak Z., Getiren B., Gokalp C., Yildiz A., Yildiz N.  
CHEMICAL ENGINEERING COMMUNICATIONS, vol.207, no.4, pp.559-573, 2020 (SCI-Expanded)
- XVIII. **Synthesis and characterization of reduced graphene oxide-iron oxide-polyaniline ternary nanocomposite and determination of its photothermal properties**  
SOYSAL F., Ciplak Z., Getiren B., Gokalp C., Yildiz N.  
MATERIALS RESEARCH BULLETIN, vol.124, 2020 (SCI-Expanded)
- XIX. **Polyaniline-Au nanocomposite as electrode material for supercapacitor applications**  
Ciplak Z., Yildiz N.  
SYNTHETIC METALS, vol.256, 2019 (SCI-Expanded)
- XX. **Synthesis of GO-Fe<sub>3</sub>O<sub>4</sub>-PANI nanocomposite with excellent NIR absorption property**  
SOYSAL F., Ciplak Z., Getiren B., Gokalp C., Yildiz N.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.578, 2019 (SCI-Expanded)
- XXI. **The effect of Ag loading on supercapacitor performance of graphene based nanocomposites**  
Ciplak Z., Yildiz N.  
FULLERENES NANOTUBES AND CARBON NANOSTRUCTURES, vol.27, no.1, pp.65-76, 2019 (SCI-Expanded)
- XXII. **Catalytic performance of Ag, Au and Ag-Au nanoparticles synthesized by lichen extract**  
Ciplak Z., Gokalp C., Getiren B., Yildiz A., Yildiz N.  
GREEN PROCESSING AND SYNTHESIS, vol.7, no.5, pp.433-440, 2018 (SCI-Expanded)
- XXIII. **A parametric study for the synthesis of graphene-AgAu nanocomposites: performances as electrode material**  
Ciplak Z., Yildiz N.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.12, pp.10411-10426, 2018 (SCI-Expanded)
- XXIV. **Investigation of Graphene/Ag Nanocomposites Synthesis Parameters for Two Different Synthesis Methods**  
Ciplak Z., Yildiz N., Calimli A.  
FULLERENES NANOTUBES AND CARBON NANOSTRUCTURES, vol.23, no.4, pp.361-370, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **One-pot Synthesis of Graphene Oxide-MnO<sub>2</sub>-Polyaniline Nanocomposites and Their Photothermal Properties**  
Çıplak Z., Soysal F.  
Gazi University Journal of Science Part A: Engineering and Innovation, vol.11, no.1, pp.164-172, 2024 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **SYNTHESIS AND CHARACTERIZATION of GRAPHENE QUANTUM DOTS**  
GÖKALP C., ÇIPLAK Z., GETİREN B., YILDIZ N.  
IV. International EgeComposite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- II. **Catalytic activity of nitrogen doped reduced graphene oxide decorated with silver nanoparticles**

- SOYSAL F., ÇIPLAK Z., YILDIZ N.  
IV. International Ege Composite Materials Symposium 2018 (KomPEGE IV), 6 - 08 September 2018, pp.88
- III. **Photothermal properties of reduced graphene oxide-Fe<sub>3</sub>O<sub>4</sub>-polyaniline nanocomposite**  
SOYSAL F., ÇIPLAK Z., YILDIZ N.  
IV. International Ege Composite Materials Symposium 2018 (KomPEGE IV), 6 - 08 September 2018, pp.48
- IV. **Graphene-AgAu-PANI Nanocomposite for Supercapacitor Application**  
ÇIPLAK Z., YILDIZ N.  
IV. International Ege Composite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- V. **Graphene Oxide-Fe<sub>3</sub>O<sub>4</sub>-Polypyrrole Ternary Nanocomposite for Usnic Acid Loading and Release**  
ÇIPLAK Z., ATİLA DİNÇER C., GÖKALP C., GETİREN B., YILDIZ N.  
IV. International Ege Composite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- VI. **Catalytic Activity Of Reduced Graphene Oxide Based Bimetallic Nanocomposites**  
GÖKALP C., ÇIPLAK Z., GETİREN B., YILDIZ A., YILDIZ N.  
IV. International Ege Composite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- VII. **SYNTHESIS AND CHARACTERIZATION of GO-Fe<sub>3</sub>O<sub>4</sub>-PPy PHOTOTHERMAL PERFORMANCE**  
GETİREN B., ÇIPLAK Z., GÖKALP C., YILDIZ N.  
IV. International Ege Composite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- VIII. **GREEN SYNTHESIS AND CATALYTIC ACTIVITY of GRAPHENE-Cu-Ag NANOCOMPOSITE**  
GETİREN B., ÇIPLAK Z., GÖKALP C., YILDIZ A., YILDIZ N.  
IV. International Ege Composite Materials Symposium (KOMPEGE), 6 - 08 September 2018
- IX. **Catalytic Activity of Reduced Graphene Oxide-Ag-Fe<sub>3</sub>O<sub>4</sub> Nanocomposite**  
ÇIPLAK Z., GÖKALP C., GETİREN B., YILDIZ N., TÜRKÖZ S., ÇÖÇÜ G.  
INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES, 26 - 27 April 2018
- X. **Supercapacitor Application of Binary Polyaniline-Au Nanocomposite**  
ÇIPLAK Z., YILDIZ N.  
INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES, 26 - 27 April 2018
- XI. **High performance supercapacitor based on rGO-Fe<sub>3</sub>O<sub>4</sub>/PANI nanocomposite**  
ÇÖÇÜ G., ÇIPLAK Z., TÜRKÖZ S., YILDIZ N., ATİLA DİNÇER C.  
International Congress On Chemistry And Materials Science, 5 - 07 October 2017
- XII. **Investigation of Fe<sub>3</sub>O<sub>4</sub>/rGO Nanocomposite Performance for Supercapacitor Application**  
TÜRKÖZ S., YILDIZ N., ÇIPLAK Z., KURUÇAM G., ATİLA DİNÇER C.  
International Congress on Chemistry and Materials Science (ANCON 2017), 5 - 07 October 2017
- XIII. **Preparation of rGO based containing monometallic (Ag or Au) and bimetallic (AgAu) nanoparticles nanocomposite with a green approach**  
ÇIPLAK Z., YILDIZ N., YILDIZ A.  
3rd International Conference On Science, Ecology And Technology, 14 - 16 August 2017
- XIV. **Green synthesis of Graphene-Ag nanocomposite for supercapacitor application**  
ÇIPLAK Z., YILDIZ N., YILDIZ A.  
3rd International Conference On Science, Ecology And Technology, 14 - 16 August 2017
- XV. **Optimization of Capacitance Performance of Graphene Based Nanocomposites by Response Surface Method (RSM)**  
ÇIPLAK Z., ATİLA DİNÇER C., YILDIZ N., YILDIZ A.  
3rd INTERNATIONAL CONFERENCE ON SCIENCE, ECOLOGY AND TECHNOLOGY, 14 August - 16 September 2017
- XVI. **Immobilization of lipase enzyme on nanosized materials and investigation of the enzymatic activity**  
COŞKUN G., ÇIPLAK Z., YILDIZ N., MEHMETOĞLU Ü.  
22. Uluslararası Biyomedikal Bilim ve Teknoloji Sempozyumu (Biomed 2017), 12 - 14 May 2017
- XVII. **Investigation of catalytic performance of AuNPs synthesized by lichen extract**  
Getiren B., Gökalp C., YILDIZ A., ÇIPLAK Z., ATİLA DİNÇER C., YILDIZ N.  
INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES, 1 - 05 September 2016
- XVIII. **The Effect of Synthesis Parameters on Graphene AgAu Nanocomposites**  
ÇIPLAK Z., YILDIZ N., ÇÖÇÜ G., TÜRKÖZ S.

12th Nanoscience and Nanotechnology Conference, 3 - 05 June 2016

**XIX. Synthesis and Characterization of PANI Au Composites via a Different Approach**

ÇIPLAK Z., YILDIZ N., ÇÖÇÜ G., TÜRKÖZ S.

12th Nanoscience and Nanotechnology Conference, 3 - 05 June 2016

**XX. Green Synthesis of Graphene AgAu NPs Nanocomposite by a Simultaneous Reducing Method**

ÇIPLAK Z., YILDIZ N., ÇALIMLI A.

11. Ulusal Nanobilim ve Nanoteknoloji Konferansı, Turkey, 22 - 25 June 2015

**XXI. Grafen Temelli Polianilin Gümüş Nanokompozitlerinin Sentez ve Karakterizasyonu**

ÇIPLAK Z., YILDIZ N., ÇALIMLI A.

11. Ulusal Kimya Mühendisliği Kongresi, Turkey, 2 - 05 September 2014

**XXII. Süperkritik Karbondioksit Ortamında SK CO2 Ortamında Grafen Sentezi**

Eraslan S., ATİLA DİNÇER C., ÇIPLAK Z., ÇALIMLI A.

11. Ulusal Kimya Mühendisliği Kongresi (UKMK-11), Turkey, 2 - 05 September 2014

**XXIII. Synthesis of Graphene AgNPs Nanocomposite by a Sequential Reducing Method**

ÇIPLAK Z., YILDIZ N., ÇALIMLI A.

9. Ulusal Nanobilim ve Nanoteknoloji Konferansı, Turkey, 24 June 2013 - 28 March 2014

**XXIV. Grafen Gümüş Nanokompozitinin Sentezi ve Karakterizasyonu**

ÇIPLAK Z., YILDIZ N., ÇALIMLI A.

10. Ulusal Kimya Mühendisliği Kongresi, Turkey, 3 - 06 September 2012

## Supported Projects

Yıldız N., TUBITAK Project, NIR Duyarlı, Grafen Kuantum Noktası (GKN) İçeren Nanokompozitlerin Sentezi, Karakterizasyonu Ve Fototermal Kemoterapi Etkinliklerinin İncelenmesi, 2017 - 2020

Çıplak Z., Yıldız N., Project Supported by Higher Education Institutions, Azot Katkılı Grafen Temelli Nanokompozitlerin Sentezi ve Süperkapasitör Uygulamaları İçin Performanslarının İncelenmesi, 2017 - 2020

Yıldız N., TUBITAK Project, Grafen Temelli Nanokompozitlerin Süperkapasitör Uygulamaları İçin Performanslarının İncelenmesi, 2015 - 2018

Çıplak Z., Yıldız N., Project Supported by Higher Education Institutions, Modifiye Edilmiş Manyetik Nanoyapılara İlaç Yükleme ve Salım Uygulamaları, 2015 - 2017

Çıplak Z., Yıldız N., Project Supported by Higher Education Institutions, Grafen Temelli Polianilin Gümüş Nanotanecik Nanokompozitinin Sentezi ve Karakterizasyonu, 2012 - 2014

## Metrics

Publication: 49

Citation (WoS): 293

Citation (Scopus): 513

H-Index (WoS): 9

H-Index (Scopus): 12