

# SEMRA ÇİÇEK

## ASSOC. PROF.

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: IYT-2631-2023

Yoksis Researcher ID: 273360

### Learning Knowledge

Postgraduate 2014 - 2017	Ataturk University, Fen Bilimleri Enstitüsü, Nanobilimve Nanomühendislik Bölümü/Nanobiyoteknoloji, Turkey
Doctorate 2013 - 2016	Ataturk University, Fen Bilimleri Enstitüsü, Tarımsal Biyoteknoloji Bölümü/Hayvansal Biyoteknoloji, Turkey
Postgraduate 2009 - 2011	Ataturk University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği, Turkey
Undergraduate 2006 - 2009	Inonu University, Mühendislik Fakültesi, Gıda Mühendisliği, Turkey

### Foreign Languages

English, B1 Intermediate

### Certificates, Courses and Trainings

Vocational Training, Machine Learning for Multiple Domains: From Concepts to Implementation, EuroCC National Competence Centres, 2024

Education Management and Planning, "Turkey in Horizon 2020" Project General Training, Atatürk Üniversitesi, 2017

Education Management and Planning, III. Uygulamalı Moleküler Biyoloji Teknikleri Lisansüstü Yaz Okulu, Atatürk Üniversitesi, 2016

Education Management and Planning, Deney Hayvanları Kullanım Sertifikası, Atatürk Üniversitesi, 2014

Education Management and Planning, TÜBİTAK 2237 Tarımsal Bilimlerde Araştırma Projesi Hazırlama Eğitimi, Erciyes Üniversitesi, 2014

Education Management and Planning, Patent Faydalı Model Eğitim Semineri, Atatürk Üniversitesi, 2014

### Dissertations

Postgraduate, Fe<sub>3</sub>O<sub>4</sub>, ZnO ve ZnO/Fe<sub>3</sub>O<sub>4</sub> Nanopartikülleri İmmobilize Luffa Sponge Lifleri Kullanılarak Atık Sulardan Trypan Blue ve Direct Blue 15 Azo Boyar Maddelerin Giderilmesi; Kinetik ve Denge Modellemesi , Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Nanobilim Ve Nanomühendislik Bölümü/Nanobiyoteknoloji, 2017

Doctorate, Paraoksonaz (PON1) Enziminin Üç Faz Ayrımı (ÜFA) Yöntemiyle Saflaştırılması, Karakterize Edilmesi ve Karadut (Moris nigra) Ekstraktları İmmobilize Edilmiş  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> Nanopartiküllerinin PON1, Glioblastoma ve Primer Rat Korteks Sinir Hücreleri Üzerine Etkilerinin Araştırılması, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Tarımsal Biyoteknoloji Bölümü/Hayvansal Biyoteknoloji, 2016

Postgraduate, Microfluidizer, Ultrasound ve Yüksek Hidrostatik Basınç Uygulamalı Peyniraltı Suyu İlavasının Ekmeğin Tekstür, Renk ve Bazı Kalite Parametreleri Üzerindeki Etkileri, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Gıda Mühendisliği, 2011

## Academic Titles / Tasks

Associate Professor  
2024 - Continues

Ataturk University, Ziraat Fakültesi, Tarımsal Biyoteknoloji

Assistant Professor  
2018 - 2024

Ataturk University, Ziraat Fakültesi, Tarımsal Biyoteknoloji

Assistant Professor  
2017 - 2018

Ataturk University, Ziraat Fakültesi, Tarımsal Biyoteknoloji

## Supported Projects

1. ÇİÇEK S., Project Supported by Higher Education Institutions, Farklı sıcaklık ortamlarında 23 24 ve 25 C RTG2 Hücrelerinde Nikel Nanopartikül Toksisitesinin Sitotoksisite Biyokimyasal ve Genotoksisite Açısından Araştırılması, 2023 - 2024
2. ÇİÇEK S., IŞIK S., Project Supported by Higher Education Institutions, Bazı Esansiyel Yağların Nanoemülsiyon Formlarının Oluşturulması ve Karakterize Edilmesi, 2022 - 2023
3. ÇİÇEK S., Project Supported by Higher Education Institutions, RTG2 Hücre Hattında Bakır II Oksit CuO Nanopartikül Toksisitesi Üzerine Tokoferol Etkisinin Sitotoksisite ve Biyokimyasal Açısından Araştırılması, 2021 - 2022
4. ÇİÇEK S., IŞIK S., Project Supported by Higher Education Institutions, RTG2 Hücre Hattında Bakır II Oksit CuO Nanopartikül Toksisitesi Üzerine Resveratrolün Etkisinin Sitotoksisite Biyokimyasal ve Genotoksisite Açısından Araştırılması, 2020 - 2022
5. ÇİÇEK S., TURHAN S., Project Supported by Higher Education Institutions, Ricania simulansta Kitin Sentaz 1 Geninin Moleküler Karakterizasyonu, 2019 - 2021
6. TAŞPINAR M. S., BAYIR M., ÇİÇEK S., İÇOĞLU AKSAKAL F., ORHAN E., AYDIN M., DİKBAŞ N., ÇİLTAŞ A., Project Supported by Higher Education Institutions, Tarımsal Biyoteknoloji Bölümünün Araştırma Altyapısı Yönünden Desteklenmesi, 2018 - 2021
7. TAŞPINAR M. S., ORHAN E., ÇİÇEK S., AYDIN M., İÇOĞLU AKSAKAL F., BAYIR M., DİKBAŞ N., ÇİLTAŞ A., Project Supported by Higher Education Institutions, Tarımsal Biyoteknoloji Bölümü Laboratuvar Altyapısını Güçlendirme Projesi, 2018 - 2021
8. ÇİÇEK S., ÇAĞLAR A. F., TUTUŞ B. C., SARI M. M., KÜÇÜKYILDIRIM A., OFLAZ U., Project Supported by Higher Education Institutions, Atatürk Erkek Yetiştirme Yurdundaki Öğrencilerin Pasinler Hasankale Kaplıcasında "Yüzüyorum ve Mutluyum" Etkinliği, 2019 - 2020
9. ÇİÇEK S., TURHAN S., DOĞAN B., KÜÇÜKYILDIRIM A., Project Supported by Higher Education Institutions, Nene Hatun Kız Yetiştirme Yurdundaki Öğrencilerde Gıda Zehirlenmeleri ve Gıda Zehirlenmelerinde İlk Yardıma Dair Hakkında Farkındalık Kazandırma Etkinliği, 2019 - 2020
10. NALCIOĞLU A. U., TOPU F. B., ELMAS S., ADIGÜZEL M. C., KÖSE M., EJDER APAY S., OZAN C., GÜR E. Y., ÖZSOY D., KIYAK E., et al., Project Supported by Higher Education Institutions, Atatürk Üniversitesi Akademisyenlerinin

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

- 1. A study on insecticidal activity of the fennel (*Foeniculum vulgare*) essential oil and its nanoemulsion against stored product pests and molecular docking evaluation**  
ÇİÇEK S., Korkmaz Y. B., TÜZÜN B., Işık S., Yılmaz M. T., ÖZOĞUL F.  
Industrial Crops and Products, vol.222, 2024 (SCI-Expanded)
- 2. Insecticidal efficiency of orange peel (*Citrus sinensis*) essential oil nanoemulsions against *Rhyzopertha dominica* (Fabricius, 1792) and *Tribolium castaneum* (Herbst, 1797)**  
Çiçek S., Bulak Korkmaz Y., Işık S.  
ADVANCES IN NANO RESEARCH, vol.17, no.1, pp.75-86, 2024 (SCI-Expanded)
- 3. A New Economical Route for the Grapefruit Peel Essential Oil: Nanoemulsion Form and Insecticidal Activity**  
Çiçek S., Bulak Korkmaz Y., Işık S.  
SOUTH AFRICAN JOURNAL OF BOTANY, vol.169, pp.56-65, 2024 (SCI-Expanded)
- 4. Definition, detection, and tracking of nanowaste in foods: Challenges and perspectives**  
Çiçek S., Yılmaz M. T., Dapčević Hadnađev T., Endalew Tadesse E., Kulawik P., Özoğul F.  
COMPREHENSIVE REVIEWS IN FOOD SCIENCE AND FOOD SAFETY, vol.23, no.4, pp.1-36, 2024 (SCI-Expanded)
- 5. Impacts of high-dose riboflavin on cytotoxicity, antioxidant, growth, reproductive gene expressions, and genotoxicity in the rainbow trout gonadal cells**  
Çiçek S., Işık S.  
TOXICOLOGY IN VITRO, vol.94, pp.1-9, 2024 (SCI-Expanded)
- 6. Machine Learning Analysis of the Impact of Silver Nitrate and Silver Nanoparticles on Wheat (*Triticum aestivum* L.): Callus Induction, Plant Regeneration, and DNA Methylation**  
Türkoğlu A., Haliloğlu K., Demirel F., Aydın M., Çiçek S., Yiğider E., Demirel S., Piekutowska M., Szulc P., Niedbała G.  
PLANTS-BASEL, vol.12, no.24, 2023 (SCI-Expanded)
- 7.  $\alpha$ -tocopherol ameliorates copper II oxide nanoparticles-induced cytotoxic, biochemical, apoptotic, and genotoxic damages in the rainbow trout gonad cells-2 (RTG-2) culture**  
Çiçek S.  
ENVIRONMENTAL TOXICOLOGY AND PHARMACOLOGY, vol.101, no.2023, pp.1-10, 2023 (SCI-Expanded)
- 8. Nanotechnology-based preservation approaches for aquatic food products: A review with the current knowledge**  
Çiçek S., Özoğul F.  
CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION, vol.63, no.19, pp.3255-3278, 2023 (SCI-Expanded)
- 9. Influences of L-ascorbic acid on cytotoxic, biochemical, and genotoxic damages caused by copper II oxide nanoparticles in the rainbow trout gonad cells-2**  
ÇİÇEK S.  
Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, vol.266, 2023 (SCI-Expanded)
- 10. Effects of selenium nanoparticles on growth performance, hematological, serum biochemical parameters, and antioxidant status in fish**  
ÇİÇEK S., ÖZOĞUL F.  
Animal Feed Science and Technology, vol.281, 2021 (SCI-Expanded)
- 11. Removing Trypan blue dye using nano-Zn modified Luffa sponge**  
NADAROĞLU H., ÇİÇEK S., GUNGOR A. A.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.172, pp.2-8, 2017 (SCI-Expanded)
- 12. Immobilization of a thermostable phytase from *Pinar melkior* (*Lactarius piperatus*) onto magnetite chitosan nanoparticles**  
ONEM H., ÇİÇEK S., NADAROĞLU H.

CYTA-JOURNAL OF FOOD, vol.14, no.1, pp.74-83, 2016 (SCI-Expanded)

13. **The use of nanotechnology in the agriculture**

ÇİÇEK S., NADAROĞLU H.

ADVANCES IN NANO RESEARCH, vol.3, no.4, pp.207-223, 2015 (SCI-Expanded)

14. **Biochemical Evaluation and Green Synthesis of Nano Silver Using Peroxidase from Euphorbia (Euphorbia amygdaloides) and Its Antibacterial Activity**

CICEK S., Gungor A., ADIGÜZEL A., NADAROĞLU H.

JOURNAL OF CHEMISTRY, 2015 (SCI-Expanded)

## Articles Published in Other Journals

1. **Cytotoxic Effects of Eugenol and  $\alpha$ -Terpineol on the Rainbow Trout Gonadal Cells**

Çiçek S.

Osmaniye Korkut Ata Üniversitesi Fen Bilimleri Enstitüsü Dergisi (Online), vol.7, no.3, pp.1272-1280, 2024 (Peer-Reviewed Journal)

2. **Cytotoxicity of silver nanoparticles obtained from Eruca vesicaria on rainbow trout gonad cell line-2 (RTG-2)**

Çiçek S.

Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.12, no.4, pp.1093-1101, 2022 (Peer-Reviewed Journal)

3. **Effects of Ferulic Acid on Human Serum Paraoxonase Enzyme Purified by Three-Phase Partitioning**

ÇİÇEK S.

The World of Biomedical Technology, vol.1, no.1, pp.1-7, 2021 (Peer-Reviewed Journal)

4. **Effects of Nanoparticles on Soil Microorganisms**

ÇİÇEK S.

World Journal of Agriculture and Soil Science, vol.6, no.5, pp.1-2, 2021 (Peer-Reviewed Journal)

5. **Küçükbaş ve Büyükbaş Hayvan Beslenmesinde Selenyum Nanopartikül Diyetlerinin Kullanımı**

ÇİÇEK S., TURHAN S., IŞIK S.

Atatürk Üniversitesi Ziraat Fakültesi Dergisi, 2021 (Peer-Reviewed Journal)

## Books & Book Chapters

1. **Development of functional bread and other bakery products**

Çiçek S., Işık S.

in: Handbook of Sourdough Microbiota and Fermentation, Fatih ÖZOĞUL, João Miguel Rocha, Elena Bartkiene, Editor, Academic Press, London, pp.279-295, 2024

2. **Food Quality 4.0: contribution to sustainability**

Ait-Kaddour A., Boudalia S., Özoğul F., Çiçek S., Cahyana Y., Bhat Z. F.

in: Food Industry 4.0 (Emerging Trends and Technologies in Sustainable Food Production and Consumption), Abdo HASSOUN, Editor, Academic Press, London, pp.35-59, 2024

3. **GREEN SYNTHESIS OF METAL NANOPARTICLES USING PLANT MEDIA**

Çiçek S., Işık S.

in: The Trends In Nano Materials Synthesis And Applications, Tuba Çakıcı, Editor, Efe Akademi Yayınları, Ankara, pp.61-75, 2022

4. **The Investigation of Removing Direct Blue 15 Dye from Wastewater Using Magnetic Luffa sponge NPs**

NADAROĞLU H., ÇİÇEK S., ONEM H., GUNGOR A. A.

in: Iron Ores and Iron Oxide Materials, Shotokha V., Editor, Intechopen, Londra, pp.207-228, 2018

## Refereed Congress / Symposium Publications in Proceedings

1. **CITRUS FRUIT WASTES-BASED ESSENTIAL OIL NANOEMULSIONS AS ECO-FRIENDLY INSECTICIDES**  
Çiçek S.  
Bio&NanoTech2024 INTERNATIONAL BIOTECHNOLOGY AND NANOTECHNOLOGY CONGRESS, Ardahan, Turkey, 30 October - 01 November 2024, pp.161-174
2. **DEEP LEARNING APPROACHES IN AQUATIC TOXICOLOGY STUDIES**  
Çiçek S.  
The International Thales Congress on Life, Engineering, Architecture, and Mathematics, Cairo, Egypt, 18 - 19 October 2024, pp.173-195
3. **Cytotoxicity of Orange Peel (Citrus sinensis) Essential Oil Nanoemulsions on the Rainbow trout Gonadal Cells**  
ÇİÇEK S.  
V. International Agricultural, Biological & Life Science Conference, Edirne, Turkey, 18 - 20 September 2023
4. **Effects of Microfluidization and Ultrasonication Pre-Treated Whey Addition on Some Quality Parameters of Bread**  
Çiçek S., Aydın F., Bozoğlu T. F.  
4TH INTERNATIONAL CONFERENCE ON FOOD, AGRICULTURE AND ANIMAL SCIENCES, Sivas, Turkey, 27 - 29 April 2023, pp.124-137
5. **Studies on the Use of Nanoparticles in Reducing Methane Emission in Ruminant Animals**  
ÇİÇEK S., KILINÇ G.  
5th International Eurasian Congress on Natural Nutrition, Healthy Life & Sport, Ankara, Turkey, 2 - 06 October 2019, pp.792
6. **Nanoenkapsüle Edilmiş Bitkisel Kökenli Katkı Maddelerinin Kanatlı Beslemede Kullanımına Yönelik Çalışmalar**  
ÇİÇEK S., KILINÇ G.  
5th International Eurasian Congress on Natural Nutrition, Healthy Life & Sport, Ankara, Turkey, 2 - 06 October 2019, pp.387-394
7. **POSITIVE AND NEGATIVE EFFECTS OF USING ZINC OXIDE NANOPARTICULES IN ANIMAL NUTRITION**  
Çiçek S.  
INTERNATIONAL ANKARA CONFERENCE OF SCIENTIFIC RESEARCH, Ankara, Turkey, 4 - 06 October 2019, pp.531-535
8. **EFFECTS OF USING COPPER NANOPARTICLES ON BROILER NUTRITION**  
Çiçek S.  
INTERNATIONAL ANKARA CONFERENCE ON SCIENTIFIC RESEARCHES, Ankara, Turkey, 4 - 06 October 2019, pp.527-530
9. **Nano Agriculture: Risks**  
Çiçek S.  
3rdInternational Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019, pp.1157-1161
10. **Nano Agriculture: Opportunities**  
Çiçek S.  
3rdInternational Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019, pp.769-775
11. **GREEN METHODS IN SYNTHESIS OF SEMICONDUCTOR NANOMATERIALS**  
Çiçek S., Sarıtaş S.  
2nd International Congress on Semiconductor materials and Devices, Ardahan, Turkey, 28 - 30 August 2018, pp.185-191
12. **Desing of Nanoparticles on Membrane for Remove of Tyrpan Blue Azo Dye from Water**  
Çiçek S., Alaylı Güngör A., Nadaroğlu H.  
International Phsics Conference at the Anotolian Peak, Erzurum, Turkey, 25 - 27 February 2016

13. **ZnO Nanoparticles Loaded on Membrane for Remove of Direct Blue 15 Azo Dye from Wastewater**  
ÇİÇEK S., ALAYLI GÜNGÖR A., NADAROĞLU H.  
IPCAP 2016. International Physic Conference at the Anatolian Peak, 25 - 27 February 2016
14. **The Application of Immobilized Nano-Zn on Luffa sponge for Remove Trypan Blue Dye from Water**  
NADAROĞLU H., ÇİÇEK S., Babagil A.  
Colloquium Spectroscopicum Internationale XXXIX, CSI 2015, 30 August - 03 September 2015
15. **Euphorbia amygdaloides Bitkisinden Elde Edilen Peroksidaz Enzimi Kullanılarak Nano Gümüş ün Yeşil Sentezi Ve Karakterizasyonu**  
ÇİÇEK S., NADAROĞLU H., ALAYLI GÜNGÖR A., ADIGÜZEL A.  
27. ULUSAL KİMYA KONGRESİ, Turkey, 23 - 28 August 2015
16. **The Usage of Nano-Ag Immobilized on Luffa sponge for Remove Direct Blue 15 Dye from Water**  
ÇİÇEK S., NADAROĞLU H.  
Colloquium Spectroscopicum Internationale XXXIX, CSI 2015, Figuera Da Foz, Portugal, 30 August - 03 September 2015, pp.56
17. **Purification and Characterization of Phytase from Pinar Melkior (Lactarius piperatus) and Immobilization on the Surface of Modified Chitosan with Nano-Fe<sub>3</sub>O<sub>4</sub>**  
NADAROĞLU H., ÇİÇEK S., ONEM H., Sönmez Z.  
NanoNG2014, Elazığ, Turkey, 20 - 22 August 2014, pp.23

## Courses

Akıllı Tarım, Undergraduate, 2022 - 2023

Agriculture Biotechnology, Undergraduate, 2022 - 2023

Hayvan Doku Kültürü Uyg, Undergraduate, 2023 - 2024

Bionanotechnology, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Cellular Signal , Postgraduate, 2021 - 2022

The Use of Nanotechnology in Agriculture, Postgraduate, 2020 - 2021, 2019 - 2020

Genotoxicology, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Animal Tissue Culture Applications, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Enzyme and Microbial Biotechnology, Undergraduate, 2019 - 2020

Organic and Inorganic Food Biotechnology, Undergraduate, 2019 - 2020

Biyoteknolojik Projelene ve Değerlendirme II, Undergraduate, 2018 - 2019

Histology and Embryology, Undergraduate, 2017 - 2018

## Advising Theses

Çiçek S., Defneyaprağı (*Lauris nobilis*) esansiyel yağının nanoemülsiyon formunun *sitophilus granarius*'a karşı insektisit etkisinin araştırılması, Postgraduate, C.SİRKE(Student), 2023

Çiçek S., RTG-2 Hücre Hattında Bakır II Oksit (CuO) Nanopartikül Toksikitesi Üzerine Resveratrolün Etkisinin Sitotoksiste, Biyokimyasal ve Genotoksiste Açısından Araştırılması, Postgraduate, S.İŞİK(Student), 2020

Çiçek S., *Ricania simulans*'ta Kitin Sentaz 1 Geninin Transkriptom Analizi, Postgraduate, S.TURHAN(Student), 2019

## Activities in Scientific Journals

Committee Member, 2021 - Continues

## Scientific Refereeing



February 2023

FOOD BIOSCIENCE, SCI Journal, January 2023

FRONTIERS IN NUTRITION, SCI Journal, April 2022

FOOD BIOSCIENCE, SCI Journal, March 2022

FOOD BIOSCIENCE, SCI Journal, January 2022

FOOD BIOSCIENCE, SCI Journal, January 2022

FOOD BIOSCIENCE, SCI Journal, December 2021

FOOD BIOSCIENCE, SCI Journal, November 2021

FOOD BIOSCIENCE, SCI Journal, November 2021

FOOD BIOSCIENCE, SCI Journal, November 2021

FOOD BIOSCIENCE, SCI Journal, September 2021

Journal Of Agricultural Science And Technology, Other Indexed Journal, June 2021

FOOD BIOSCIENCE, SCI Journal, May 2021

FOOD BIOSCIENCE, SCI Journal, March 2021

Gümüşhane Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, December 2020

FOOD BIOSCIENCE, SCI Journal, November 2020

FOOD BIOSCIENCE, SCI Journal, October 2020

Kommagene Biyoloji Dergisi, Other Journals, September 2020

## Scientific Research / Working Group Memberships

Sourdomics Ca18101, Universidade de Minho, Portugal, <https://sourdomics.com/>, 2021 - 2023

## Metrics

Publication: 41

Citation (WoS): 194

Citation (Scopus): 127

H-Index (WoS): 6

H-Index (Scopus): 5

## Congress and Symposium Activities

2. rd. International congress on semiconductor materials and devices, Attendee, Ardahan, Turkey, 2018

## Research Areas

Agricultural Sciences, Agriculture, Life Sciences, Natural Sciences, Engineering and Technology