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International Researcher IDs

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Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Ensttüsü, Biyoloji, Turkey 2013 - 2017

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, BUĞDAY BİTKİSİNDE (Triticum aestivum L.) N-ASETİLSİSTEİN'İN AĞIR METAL TOKSİSİTESİNE KARŞI İYİLEŞTİRİCİ ETKİSİNİN ARAŞTIRILMASI, Karadeniz Technical University, Biyoloji , Botanik, 2017

Postgraduate, İYONİZE RADYASYONA MARUZ BIRAKILAN ÇİMLENEN ARPA (HORDEUM VULGARE L.) TOHUMLARINDA ANTOSİYANİN MUAMELESİNİN FİZYOLOJİK VE BİYOKİMYASAL ETKİLERİNİN ARAŞTIRILMASI, Karadeniz Technical University, Biyoloji, Biyoloji-Botanik, 2013

Research Areas

Life Sciences, Plant Biology, Plant Physiology, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Fen Fakültesi, Biyoloji, 2017 - Continues

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Biyoloji, 2010 - 2017

Academic and Administrative Experience

Deputy Head of Department, Karadeniz Technical University, Fen Fakültesi, Biyoloji, 2017 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Exogenous melatonin ameliorates ionizing radiation-induced damage by modulating growth, osmotic adjustment and photosynthetic capacity in wheat seedlings**
Kurt-Celebi A., Çolak N., Torun H., Dosedělová V., Tarkowski P., Ayaz F. A.
PLANT PHYSIOLOGY AND BIOCHEMISTRY, vol.187, pp.67-76, 2022 (SCI-Expanded)
- II. **An evaluation of volatiles and phenolic compounds in conjunction with the antioxidant capacity of endemic endangered species of *Erodium hendrikii* Alpınar**
Cüce M., ÇOLAK N., Ćavar Zeljković S., Tarkowski P., Strnad M., Gruz J., Vehbi İmamoğlu K., AYAZ F. A.
South African Journal of Botany, vol.149, pp.458-467, 2022 (SCI-Expanded)
- III. **The Phenolics and Antioxidant Properties of Black and Purple versus White Eggplant Cultivars**
ÇOLAK N., Kurt-Celebi A., Gruz J., Strnad M., Hayirlioglu-Ayaz S., Choung M., Esatbeyoglu T., AYAZ F. A.
MOLECULES, vol.27, no.8, 2022 (SCI-Expanded)
- IV. ***Vitis vinifera* Turkish novel table grape 'Karaerik'. Part II: Non-anthocyanin phenolic composition and antioxidant capacity**
Perez-Navarro J., Hermosin-Gutierrez I., Gomez-Alonso S., Kurt-Celebi A., Çolak N., Hayirlioglu-Ayaz S., Ayaz F. A., Akpınar E.
JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, vol.102, no.2, pp.813-822, 2022 (SCI-Expanded)
- V. **The optimization of ultrasonic-assisted extraction of *Centaurea* sp. antioxidative phenolic compounds using response surface methodology**
Bouafia M., ÇOLAK N., AYAZ F. A., Benarfa A., Harrat M., Gourine N., Yousfi M.
JOURNAL OF APPLIED RESEARCH ON MEDICINAL AND AROMATIC PLANTS, vol.25, 2021 (SCI-Expanded)
- VI. **The protective effect of exogenous salicylic and gallic acids ameliorates the adverse effects of ionizing radiation stress in wheat seedlings by modulating the antioxidant defence system**
Colak N., Kurt-Celebi A., Fauzan R., Torun H., Ayaz F. A.
Plant Physiology and Biochemistry, vol.168, pp.526-545, 2021 (SCI-Expanded)
- VII. **The biogenic amine and mineral contents of different milling fractions of bread and durum wheat (*Triticum L.*) cultivars**
Karayigit B., ÇOLAK N., ÖZOĞUL F., GÜNDOĞDU A., İNCEER H., Bilgicli N., AYAZ F. A.
FOOD BIOSCIENCE, vol.37, 2020 (SCI-Expanded)
- VIII. **Accumulation of Phenolic Compounds and Antioxidant Capacity during Berry Development in Black 'Isabel' Grape (*Vitis vinifera*L. x*Vitis labrusca*L.)**
Kurt-Celebi A., Çolak N., Hayirlioglu-Ayaz S., Velickovska S. K., Ilieva F., Esatbeyoglu T., Ayaz F. A.
MOLECULES, vol.25, no.17, 2020 (SCI-Expanded)
- IX. ***Vitis vinifera* Turkish grape cultivar Karaerik. Part I: anthocyanin composition, and identification of a newly found anthocyanin(dagger)**
Hermosin-Gutierrez I., Gomez-Alonso S., Perez-Navarro J., KURT A., ÇOLAK N., AKPINAR E., Hayirlioglu-Ayaz S., AYAZ F. A.
JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, vol.100, no.3, pp.1301-1310, 2020 (SCI-Expanded)
- X. **Effect of N-acetyl-L-cysteine (NAC) on soluble sugar and polyamine content in wheat seedlings exposed to heavy metal stress (Cd, Hg and Pb)**
ÇOLAK N., Tarkowski P., AYAZ F. A.
BOTANICA SERBICA, vol.44, no.2, pp.191-201, 2020 (SCI-Expanded)
- XI. **Exogenous N-Acetylcysteine alleviates heavy metal stress by promoting phenolic acids to support antioxidant defence systems in wheat roots**
ÇOLAK N., Torun H., Gruz J., Strnad M., AYAZ F. A.
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.181, pp.49-59, 2019 (SCI-Expanded)
- XII. **Fatty acids of oil and antioxidant capacity of phenolics from fruits of 11 Cardueae (Carduoideae, Asteraceae) taxa from northeast Anatolia (Turkey)**
Kurt A., ÖZCAN M., ÇOLAK N., ÖZOĞUL Y., Glew R., ÖZOĞUL F., Ahmet Ayaz F.
BOTANICA SERBICA, vol.43, no.1, pp.31-45, 2019 (SCI-Expanded)
- XIII. **Synthesis, biological activity and structure activity relationship studies of novel conazole analogues via conventional, microwave and ultrasound mediated techniques**

- MERMER A., DEMİRBAŞ N., DEMİRBAŞ A., ÇOLAK N., AYAZ F. A., Alagumuthu M., Arumugam S.
BIOORGANIC CHEMISTRY, vol.81, pp.55-70, 2018 (SCI-Expanded)
- XIV. **Microwave-Assisted Synthesis, Antioxidant, and Antimicrobial Evaluation of Piperazine-Azole-Fluoroquinolone Based 1,2,4-Triazole Derivatives**
OZDEMİR S. B., DEMİRBAŞ N., DEMİRBAŞ A., AYAZ F. A., ÇOLAK N.
JOURNAL OF HETEROCYCLIC CHEMISTRY, vol.55, no.12, pp.2744-2759, 2018 (SCI-Expanded)
- XV. **Design, Microwave-Assisted and Conventional Synthesis of New Hybrid Compounds Derived From 1-(4-Fluorophenyl)piperazine and Screening for Their Biological Activities**
OZDEMİR S. B., DEMİRBAŞ N., DEMİRBAŞ A., ÇOLAK N., AYAZ F. A.
CHEMISTRYSELECT, vol.3, no.7, pp.2144-2151, 2018 (SCI-Expanded)
- XVI. **Enzyme inhibitory and antioxidant activities of Nerium oleander L. flower extracts and activity guided isolation of the active components**
Balkan I. A., Dogan H. T., Zengin G., ÇOLAK N., AYAZ F. A., Goren A. C., KIRMIZIBEKMEZ H., YEŞİLADA E.
INDUSTRIAL CROPS AND PRODUCTS, vol.112, pp.24-31, 2018 (SCI-Expanded)
- XVII. **Phenolic compounds and antioxidant capacity in different-colored and non-pigmented berries of bilberry (*Vaccinium myrtillus* L.)**
ÇOLAK N., Primetta A. K., Riihinen K. R., Jaakola L., Gruz J., Strnad M., TORUN H., AYAZ F. A.
FOOD BIOSCIENCE, vol.20, pp.67-78, 2017 (SCI-Expanded)
- XVIII. **Nutrient profiles of the hybrid grape cultivar 'Isabel' during berry maturation and ripening**
KURT A., Torun H., ÇOLAK N., Seiler G., HAYIRLIOĞLU-AYAZ S., AYAZ F. A.
JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, vol.97, no.8, pp.2468-2479, 2017 (SCI-Expanded)
- XIX. **Conventional and Microwave-assisted Total Synthesis, Antioxidant Capacity, Biological Activity, and Molecular Docking Studies of New Hybrid Compounds**
Demirci S., MERMER A., AK G., Aksakal F., ÇOLAK N., DEMİRBAŞ A., AYAZ F. A., DEMİRBAŞ N.
JOURNAL OF HETEROCYCLIC CHEMISTRY, vol.54, no.3, pp.1785-1805, 2017 (SCI-Expanded)
- XX. **Nutritional Evaluation of an Outstanding Apple Cultivar, Göbek (*i Malus /i i /i i communis /i L.*)**
Çolak N., Kolcuoğlu Y., Tarkowski P., Benicka S., Çolak A., Ayaz S., Ayaz F. A.
Journal Of Food And Nutrition Research, vol.5, no.12, pp.874-881, 2017 (SCI-Expanded)
- XXI. **Structure-Based Hybridization, Conventional and Microwave Irradiated Synthesis, Biological Evaluation and Molecular Docking Studies of New Compounds Derived from Thiomorpholin**
Demirci S., Aksakal F., ÇOLAK N., Ülker S., DEMİRBAŞ A., DEMİRBAŞ N.
LETTERS IN DRUG DESIGN & DISCOVERY, vol.14, no.4, pp.444-463, 2017 (SCI-Expanded)
- XXII. **Bog bilberry phenolics, antioxidant capacity and nutrient profile**
ÇOLAK N., TORUN H., GRUZ J., STRNAD M., Hermosin-Gutierrez I., HAYIRLIOĞLU-AYAZ S., AYAZ F. A.
FOOD CHEMISTRY, vol.201, pp.339-349, 2016 (SCI-Expanded)
- XXIII. **Comparison of Phenolics and Phenolic Acid Profiles in Conjunction with Oxygen Radical Absorbing Capacity (ORAC) in Berries of *Vaccinium arctostaphylos* L. and *V. myrtillus* L.**
ÇOLAK N., Torun H., Gruz J., Strnad M., SUBRTOVA M., İNCEER H., AYAZ F. A.
POLISH JOURNAL OF FOOD AND NUTRITION SCIENCES, vol.66, no.2, pp.85-91, 2016 (SCI-Expanded)
- XXIV. **Comparison of Nutrient Content in Fruit of Commercial Cultivars of Eggplant (*Solanum melongena* L.)**
AYAZ F. A., ÇOLAK N., TOPUZ M., Tarkowski P., Jaworek P., Seiler G., İNCEER H.
POLISH JOURNAL OF FOOD AND NUTRITION SCIENCES, vol.65, no.4, pp.251-259, 2015 (SCI-Expanded)
- XXV. **The effect of anthocyanin-rich bilberry extract on the antioxidant system in roots of barley (*Hordeum vulgare* L.) cultivars under ionizing radiation**
ÇOLAK N., ZENGİN A. Y., AYAZ F. A.
ACTA PHYSIOLOGIAE PLANTARUM, vol.37, no.9, 2015 (SCI-Expanded)
- XXVI. **Evaluation of chemical profile and antioxidant activity of *Tripleurospermum insular*, a new species from Turkey**
İNCEER H., Zeljkovic S. C., AYAZ F. A., AYAZ S., ÇOLAK N.
NATURAL PRODUCT RESEARCH, vol.29, pp.293-296, 2015 (SCI-Expanded)

- XXVII. **Evaluation of chemical profile and antioxidant activity of Tripleurospermum insularum, a new species from Turkey**
ZELJKOVIC S. C., AYAZ F. A., İNCEER H., Hayirlioglu-Ayaz S., ÇOLAK N.
NATURAL PRODUCT RESEARCH, vol.29, no.3, pp.293-296, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **A nutritional evaluation of the berry of a new grape: 'Karaerik' (Vitis vinifera L.)**
KURT A., ÇOLAK N., Bengu A. S., Gundođdu A., Akpınar E., Hayirlioglu-Ayaz S., AYAZ F. A.
International Journal of Food Studies, vol.7, no.2, pp.98-116, 2018 (Scopus)
- II. **Phenolic acid content and free radical-scavenging activity of two differently processed carob tree (Ceratonia siliqua L.) pod**
TORUN H., AYAZ F. A., ÇOLAK N., Gruz J., Strnad M.
Food and Nutrition Sciences, vol.4, pp.547-553, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Grayanotoksinlerin (Gtx) Kimyasal Yapısı Ve Analitik Belirleme Yöntemlerine Genel Bir Bakış**
AYAZ F. A., ÇOLAK N., KURT A.
in: Bal ve Deli Bal, Gündüz A, Editor, Nobel Tıp Kitapevleri, Ankara, pp.45-51, 2015
- II. **Azot fiksasyonu bitkilere büyüme için havanın azotunu kullanabilme olanağı sağlar**
ÇOLAK N.
in: Bitki Biyokimyası, Ayaz F. A., Sökmen A., Editor, Nobel Akademik Yayıncılık, Ankara, pp.307-321, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Antioxidant Capacity and α -Glucosidase Inhibitory Effect of Some Bryophyte Species**
YILDIRIM AKATIN M., AYAZ F. A., BOYRACI G. M., ER KEMAL M., BATAN N., ÇOLAK N., SAĞLAM ERTUNGA N.
3. Eurasia Biochemical Approaches and Technologies Congress, Antalya, Turkey, 04 November 2021
- II. **The effect of anthocyanin-rich extract on morphology and chlorophyll content in wheat seedlings exposed to salt stress**
ÇOLAK N.
XIII. Congress of Ecology and Environment with international participation, 12 - 15 September 2017, pp.244
- III. **The ameliorative effect of anthocyanin-rich bilberry extract on the phenolic compounds content and antioxidant activity in wheat seedlings exposed to salt stress**
ÇOLAK N.
XIII. Congress of Ecology and Environment with international participation, 12 - 15 September 2017, pp.245
- IV. **The ameliorative effect of N-acetylcysteine (NAC) on the morphology and chlorophyll content in wheat seedling under heavy metals stress,**
ÇOLAK N.
XIII. Congress of Ecology and Environment with international participation, 12 - 15 September 2017, pp.246
- V. **The effect of anthocyanin-rich extract on the phenolic compounds content and antioxidant capacity in wheat (Triticum aestivum L.) under ionizing radiation**
Kurt A., ÇOLAK N., AYAZ F. A.
The Second Japan-Turkey International Symposium on Pharmaceutical and Biomedical Sciences, 11 - 12 September 2017, pp.71
- VI. **The Effect of Anthocyanin-Rich Extract on the Morphology and Pigment Concentration in a Wheat Cultivar Under Ionizing Radiation (IR)**

Kurt A., ÇOLAK N., AYAZ F. A.

The Second Japan-Turkey International Symposium on Pharmaceutical and Biomedical Science, 11 - 12 September 2017, pp.72

- VII. **Sugars and organic acids in berries of Erzincan black grape (*Vitis vinifera* 'xxKaraerik'xx)**
Kurt A., AYAZ S., ÇOLAK N., AKPINAR E., AYAZ F. A.
International Congress on Medicinal and Aromatic Plants, 9 - 11 May 2017, pp.1348
- VIII. **Polyamines and phenolic compounds content in the fruit of naturally growing *Malus sylvestris* L. in Gümüşhane (Turkey)**
Kurt A., ÇOLAK N., ÇOLAK A., KOLCUOĞLU Y., AYAZ F. A.
International Congress on Medicinal and Aromatic Plants, 9 - 11 May 2017
- IX. **Phenolic Compound Content and Antioxidant Capacity of Endemic *Tripleurospermum baytopianum* and *T. repens* (Asteraceae) from Turkey**
Karayiğit B., İNCEER H., ÇOLAK N., AYAZ S., AYAZ F. A.
. International Congress on Medicinal and Aromatic Plants, 9 - 11 May 2017, pp.1338
- X. **Phenolic compound content and antioxidant capacity in fruits of some eggplant (*Solanum melongena* L.) cultivars**
Karayiğit B., AYAZ S., Kurt A., ÇOLAK N., AYAZ F. A.
International Congress on Medicinal and Aromatic Plants, 9 - 11 May 2017
- XI. **Polyamine and phenolic compounds content in the fruit of naturally growing *Malus sylvestris* L. in Gümüşhane Turkey**
KURT a., ÇOLAK N., ÇOLAK A., KOLCUOĞLU Y., AYAZ F. A.
international congress on medicinal and aromatic plants, 9 - 11 May 2017
- XII. **PHENOLICS CONTENT AND RADICAL SCAVENGINGACTIVITY OF BLACK FOX GRAPE *Vitis labrusca* L BERRY DURING RIPENING**
TORUN H., Kurt A., ÇOLAK N., AYAZ F. A.
2 INTERNATIONAL CONFERENCE ON SCIENCEECOLOGY AND TECHNOLOGY(ICONSETE'2016), Barcelona, Spain, 14 - 16 October 2016
- XIII. **Phenolic Content and Radical Scavenging Activity of Black Fox Grape *Vitis Labrusca* L Berry During Ripening**
TORUN H., Kurt A., ÇOLAK N., AYAZ F. A.
2nd International Conference on Science, Ekology and Technology-2016, Amsterdam, Netherlands, 14 October - 16 November 2016
- XIV. **Total Phenolic Content and Antiooxidant Capacity in Some Repräsentatives of the Tribe Anthemideae Asteraceae from Turkey**
ÇOLAK N., İNCEER H., HAYIRLIOĞLU AYAZ S., AYAZ F. A.
Symposium on EuroAsian Biodiversity, 23 - 27 May 2016
- XV. **Total phenolic content and antioxidant capacity in some representatives of the tribe Anthemideae Asteraceae from Turkey**
ÇOLAK N., İNCEER H., AYAZ S., AYAZ F. A.
Symposium on EuroAsian Biodiversity, 23 - 27 May 2016
- XVI. **Phenolics and Antioxidant Capacity of Erzincan Black Grape (*Vitis vinifera*'Karaerik')**
ÇOLAK N., KURT A., AYAZ F. A., Akpınar E.
Symposium on Euroasian Biodiversity, Antalya, Turkey, 23 - 27 May 2016, pp.265
- XVII. **Total Phenolic Content and Antioxidant Capacity in Some Representatives of Tribe Anthemideae (Asteraceae) from Turkey**
ÇOLAK N., İNCEER H., AYAZ S., AYAZ F. A.
symposium on euroasian biodiversity, Antalya, Turkey, 23 - 27 May 2016, vol.1, no.1, pp.264
- XVIII. **Nutrient content of *Malis slyvestris* L. (apple), which groww naturally in Gümüşhane**
ÇOLAK N., Günal M., KOLCUOĞLU Y., ÇOLAK A., AYAZ F. A.
International Mesopotamia Agriculture Congress, Diyarbakır, Turkey, 22 - 25 September 2015, pp.201-202
- XIX. **Nutrient content of *Malus Slyvestris* L apple which grows naturally in Gümüşhane**

ÇOLAK N., Merve G., KOLCUOĞLU Y., ÇOLAK A., AYAZ F. A.

International Mesopotamia Agriculture Congress, Diyarbakır, Turkey, 22 - 25 September 2014

XX. **Nutrient content of *Malus sylvestris* L. (apple), which grows naturally in Gümüşhane**

ÇOLAK N., KOLCUOĞLU Y., ÇOLAK A., AYAZ F. A., GÜNAL M.

International Mesopotamia Agriculture congress, Diyarbakır, Turkey, 23 - 26 September 2014, pp.201-202

XXI. **An investigation of the physiological and Biochemical effect of anthocyanin treatment in the shoots of barley (*Hordeum vulgare* L.) exposed to ionizing radiation**

ÇOLAK N., AYAZ F. A., ZENGİN A. Y.

International Mesopotamia Agriculture congress, Diyarbakır, Turkey, 23 - 27 September 2014, pp.198-199

Supported Projects

AYAZ F. A., ÇOLAK N., Project Supported by Higher Education Institutions, Ekmeklik Buğday Çeşidinde *Triticum aestivum* L cv Ceyhan99 Ağır Metal Stresi ve Nasetilsisteinin Ağır Metal Toksisitesine Karşı Koruyucu Etkisi, 2016 - 2018

AYAZ F. A., ÇOLAK N., Project Supported by Higher Education Institutions, Kokulu Üzüm (*Vitis labrusca* L)ün Antosiyanin ve Resveratrol İçeriği ile Antioksidan Kapasitesinin Belirlenmesi, 2016 - 2017

Metrics

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