

## Asst. Prof. NESLİHAN TAŞ

### Personal Information

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### International Researcher IDs

ORCID: 0000-0001-5862-5618

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### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği Bölümü, Turkey 2011 - 2017

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği, Turkey 2009 - 2011

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Gıda Mühendisliği, Turkey 2005 - 2009

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Investigation of chemical reactions in hazelnut induced by roasting, Hacettepe Üniversitesi, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2017

Postgraduate, Kızartma yağlarında termal proses indikatörü olarak hidroksimetilfurfural varlığının incelenmesi, Hacettepe University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği A.B.D., 2011

### Research Areas

Food Engineering, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2019 - Continues

### Supervised Theses

Taş N., Mitigation of acrylamide formation in bakery products by using asparaginase enzyme, Postgraduate, S.GAZİ(Student), 2022

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

- I. **Modelling of perceived sweetness in biscuits based on sensory analysis as a new tool to evaluate reformulation performance in sugar reduction studies**  
ERDEM N., Taş N., KOCADAĞLI T., GÖKMEN V.  
Food Chemistry, vol.425, 2023 (SCI-Expanded)
- II. **Effect of formulation on the dispersion kinetics of baby biscuits in water, milk, and fruit juice**  
ERDEM N., KOCADAĞLI T., Taş N., Çelik S., GÖKMEN V.  
European Food Research and Technology, vol.249, no.11, pp.2925-2933, 2023 (SCI-Expanded)
- III. **Effect of salts on the formation of acrylamide, 5-hydroxymethylfurfural and flavour compounds in a crust-like glucose/wheat flour dough system during heating**  
Göncüoğlu Taş N., KOCADAĞLI T., Balagiannis D. P., GÖKMEN V., Parker J. K.  
Food Chemistry, vol.410, 2023 (SCI-Expanded)
- IV. **Effectiveness of asparaginase on reducing acrylamide formation in bakery products according to their dough type and properties**  
Gazi S., Göncüoğlu Taş N., Görgülü A., GÖKMEN V.  
Food Chemistry, vol.402, 2023 (SCI-Expanded)
- V. **Safety concerns of processed foods in terms of neo-formed contaminants and NOVA classification**  
Tas N., KOCADAĞLI T., GÖKMEN V.  
CURRENT OPINION IN FOOD SCIENCE, vol.47, 2022 (SCI-Expanded)
- VI. **Acrylamide in Corn-Based Thermally Processed Foods: A Review**  
Zilic S., Nikolic V., ATAÇ MOGOL B., Hamzalioglu A., Tas N., KOCADAĞLI T., Simic M., GÖKMEN V.  
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.70, no.14, pp.4165-4181, 2022 (SCI-Expanded)
- VII. **Investigation of serotonin, free and protein-bound tryptophan in Turkish hazelnut varieties and effect of roasting on serotonin content**  
TAŞ N., YILMAZ C., GÖKMEN V.  
FOOD RESEARCH INTERNATIONAL, vol.120, pp.865-871, 2019 (SCI-Expanded)
- VIII. **Determination of serotonin in nuts and nut containing products by liquid chromatography tandem mass spectrometry**  
YILMAZ C., Taş N., KOCADAĞLI T., GÖKMEN V.  
Food Chemistry, vol.272, pp.347-353, 2019 (SCI-Expanded)
- IX. **Effect of Roasting and Storage on the Formation of Maillard Reaction and Sugar Degradation Products in Hazelnuts (*Corylus avellana* L.)**  
TAŞ N., GÖKMEN V.  
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.67, no.1, pp.415-424, 2019 (SCI-Expanded)
- X. **Profiling of the Contents of Amino Acids, Water-Soluble Vitamins, Minerals, Sugars and Organic Acids in Turkish Hazelnut Varieties**  
TAŞ N., GÖKMEN V.  
POLISH JOURNAL OF FOOD AND NUTRITION SCIENCES, vol.68, no.3, pp.223-234, 2018 (SCI-Expanded)
- XI. **Maillard reaction and caramelization during hazelnut roasting: A multiresponse kinetic study**  
TAŞ N., GÖKMEN V.  
FOOD CHEMISTRY, vol.221, pp.1911-1922, 2017 (SCI-Expanded)
- XII. **Phenolic compounds in natural and roasted nuts and their skins: a brief review**  
TAŞ N., GÖKMEN V.  
CURRENT OPINION IN FOOD SCIENCE, vol.14, pp.103-109, 2017 (SCI-Expanded)
- XIII. **Effect of alkalization on the Maillard reaction products formed in cocoa during roasting**  
Tas N., GÖKMEN V.  
FOOD RESEARCH INTERNATIONAL, vol.89, pp.930-936, 2016 (SCI-Expanded)
- XIV. **Formation of  $\alpha$ -dicarbonyl compounds in cookies made from wheat, hull-less barley and colored corn and its relation with phenolic compounds, free amino acids and sugars**  
KOCADAĞLI T., Žilić S., Taş N., Vančetović J., Dodig D., GÖKMEN V.

- European Food Research and Technology, vol.242, no.1, pp.51-60, 2016 (SCI-Expanded)
- XV. **Profiling triacylglycerols, fatty acids and tocopherols in hazelnut varieties grown in Turkey**  
TAŞ N., GÖKMEN V.  
JOURNAL OF FOOD COMPOSITION AND ANALYSIS, vol.44, pp.115-121, 2015 (SCI-Expanded)
- XVI. **Bioactive compounds in different hazelnut varieties and their skins**  
TAŞ N., GÖKMEN V.  
JOURNAL OF FOOD COMPOSITION AND ANALYSIS, vol.43, pp.203-208, 2015 (SCI-Expanded)
- XVII. **Acrylamide and 5-hydroxymethylfurfural formation during baking of biscuits: NaCl and temperature-time profile effects and kinetics**  
Van Der Fels-Klerx H., Capuano E., Nguyen H., ATAÇ MOGOL B., KOCADAĞLI T., Göncüoğlu Taş N., Hamzalıoğlu A., Van Boekel M., GÖKMEN V.  
Food Research International, vol.57, pp.210-217, 2014 (SCI-Expanded)
- XVIII. **Investigation of heat induced reactions between lipid oxidation products and amino acids in lipid rich model systems and hazelnuts**  
Karademir Y., Goncuoglu N., GÖKMEN V.  
FOOD & FUNCTION, vol.4, no.7, pp.1061-1066, 2013 (SCI-Expanded)
- XIX. **Accumulation of 5-Hydroxymethylfurfural in Oil During Frying of Model Dough**  
Goncuoglu N., GÖKMEN V.  
JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, vol.90, no.3, pp.413-417, 2013 (SCI-Expanded)
- XX. **Phytochemicals and health benefits of dried apricots**  
Goncuoglu N., ATAÇ MOGOL B., GÖKMEN V.  
DRIED FRUITS: PHYTOCHEMICALS AND HEALTH EFFECTS, pp.226-242, 2013 (SCI-Expanded)
- XXI. **Model studies on the role of 5-hydroxymethyl-2-furfural in acrylamide formation from asparagine**  
GÖKMEN V., KOCADAĞLI T., Göncüoğlu N., Mogol B. A.  
Food Chemistry, vol.132, no.1, pp.168-174, 2012 (SCI-Expanded)

## Books

- I. **Chapter 16. Multiresponse kinetic modeling of acrylamide formation in foods**  
Taş N., Gökmen V.  
in: Acrylamide in Food, Vural Gökmen, Burçe Ataç Mogol, Editor, Academic Press, London, pp.331-350, 2023
- II. **Adding Calcium to Foods and Effect on Acrylamide**  
Taş N., Hamzalıoğlu B. A., Kocadağlı T., Gökmen V.  
in: Calcium: Chemistry, Analysis, Function and Effects, Victor R Preedy, Editor, Royal Society of Chemistry, Cambridge, pp.274-290, 2016
- III. **Formation of Hazardous Compounds during Thermal Processing of Foods**  
Kocadağlı T., Taş N., Hamzalıoğlu B. A., Gökmen V.  
in: Food Chemistry, İlbilge Saldamlı, Editor, Hacettepe Üniversitesi Yayınları, Ankara, pp.479-520, 2014
- IV. **Phytochemicals and health benefits of dried apricots**  
TAŞ N., ATAÇ MOGOL B., GÖKMEN V.  
in: Dried Fruits Phytochemicals and Health Effects, Cesarettin Alasalvar, Fereidoon Shahidi, Editor, Wiley-Blackwell, Newfoundland, pp.226-239, 2013

## Refereed Congress / Symposium Publications in Proceedings

- I. **Kinetic Modelling of Dispersion of Baby Biscuits in Liquid as a Quality Assessment Tool**  
KOCADAĞLI T., Çelik S., ERDEM N., TAŞ N., GÖKMEN V.  
The 36th EFFoST International Conference, Dublin, Ireland, 07 November 2022
- II. **Modelling of perceived sweetness in biscuits to evaluate reformulation performance in sugar**

## **reduction studies**

ERDEM N., TAŞ N., KOCADAĞLI T., GÖKMEN V.

The 36th EFFoST International Conference, Dublin, Ireland, 07 November 2022

- III. **Mitigation of acrylamide by asparaginase applications in bakery products with different dough types and properties**  
Gazi S., TAŞ N., GÖRGÜLÜ A., GÖKMEN V.  
7th Food Safety Congress, İstanbul, Turkey, 03 November 2022
- IV. **Health-Promoting Compounds in Turkish Hazelnut Varieties**  
TAŞ N., YILMAZ C., GÖKMEN V.  
14th International Conference and Exhibition on Nutraceuticals and Functional Foods, İstanbul, Turkey, 02 October 2022
- V. **Understanding changes in aroma generation in model biscuits where inorganic salts have been used to mitigate acrylamide formation**  
Parker J., TAŞ N., KOCADAĞLI T., Balagiannis D., GÖKMEN V.  
ISMR 13-13th International Symposium on the Maillard Reaction, 10 - 13 September 2018
- VI. **Effect of metal salts on the formation of aroma compounds and acrylamide during heating**  
TAŞ N., KOCADAĞLI T., Balagiannis D., GÖKMEN V., Parker J.  
Acrylamide - Regulatory and Industry Update, 16 October 2017
- VII. **THE EFFECT OF BAKING CONDITIONS AND DOUGH FORMULATIONS ON DICARBONYL COMPOUNDS FORMATION AND ANTHOCYANINS STABILITY IN COOKIES MADE FROM BLUE CORN FLOUR**  
Zilic S., GÖKMEN V., KOCADAĞLI T., Vancetovic J., TAŞ N.  
13th Congress of Nutrition, 26 - 28 October 2016
- VIII. **The effect of baking conditions and dough formulations on alpha dicarbonyl compounds formation and anthocyanins stability in cookies made from blue corn flour**  
Zilic S., GÖKMEN V., KOCADAĞLI T., Vancetovic J., TAŞ N.  
13th Congress of Nutrition, 26 - 28 October 2016
- IX. **Multiresponse kinetic modelling of Maillard reaction and caramelisation in hazelnuts during roasting**  
TAŞ N., GÖKMEN V.  
12th International Symposium on the Maillard Reaction, Japan, 1 - 04 September 2015
- X. **Effect of Alkalization on Maillard Reaction Products During Cocoa Roasting**  
TAŞ N., GÖKMEN V.  
3rd International Congress on Cocoa Coffee and Tea, Portugal, 22 - 24 June 2015
- XI. **Effect of Alkalization on Maillard Reaction Process During Cocoa Roasting**  
TAŞ N., GÖKMEN V.  
Third International Congress on Cocoa Coffee and Tea 2015, 22 - 24 June 2015
- XII. **Bioactive compounds in skins of different hazelnut varieties**  
TAŞ N., GÖKMEN V.  
7th International Conference and Exhibition on Nutraceuticals and Functional Foods, 14 - 17 October 2014
- XIII. **Lipid Oxidation and Sugar Dehydration Products Creating Health Risks in Repeatedly Used Frying Oils**  
TAŞ N., GÖKMEN V.  
Euro Food Chem XVII, 7 - 10 May 2013
- XIV. **Kinetic modeling of the formation of acrylamide and HMF in biscuits**  
Van der Fels Klerx H., Nguyen H., ATAÇ MOGOL B., Capuano E., KOCADAĞLI T., TAŞ N., HAMZALIOĞLU B. A.  
EuroFoodChem XVII, 7 - 10 May 2013
- XV. **High resolution mass spectrometry analysis of reaction products and intermediates formed in carbonyl-asparagine model system during heating**  
ATAÇ MOGOL B., TAŞ N., KOCADAĞLI T., GÖKMEN V.  
11th International Symposium on the Maillard Reaction "Centenary of the Maillard Reaction Discovery (1912-2012)", 16 - 20 September 2012
- XVI. **In depth study of acrylamide formation in coffee during roasting**

KOCADAĞLI T., TAŞ N., HAMZALIOĞLU B. A., GÖKMEN V.

11th International Symposium on the Maillard Reaction "Centenary of the Maillard Reaction Discovery (1912-2012), 16 - 20 September 2012

**XVII. Targeted screening of sugar dehydration products in frying oils by high resolution mass spectrometry**

TAŞ N., GÖKMEN V.

6th Central European Congress on Food, 23 - 26 May 2012

**XVIII. Regeneration of frying oils by using adsorbent resins**

TAŞ N., ATAÇ MOGOL B., GÖKMEN V.

ICEF 2011 International Congress on Engineering and Food, 22 - 26 May 2011

**XIX. Removal of hydroxymethylfurfural from frying oil by using adsorbent resin**

TAŞ N., ATAÇ MOGOL B., GÖKMEN V.

2. Gıda Güvenliği Kongresi, 9 - 10 December 2010

**XX. High resolution mass spectrometry analysis of the Maillard reaction products formed in 2,4-decadienal-amino acid model systems during heating.**

TAŞ N., GÖKMEN V.

11th International Symposium on the Maillard Reaction "Centenary of the Maillard Reaction Discovery (1912-2012)", 16 - 20 September 2012

**XXI. HMF formation in dried apricots**

TAŞ N., ATAÇ MOGOL B., DURMAZ G., GÖKMEN V.

5th Central European Congress on Food, 19 - 22 May 2010

**XXII. Effect of repeated use of frying oils on the formation of harmful compounds**

ATAÇ MOGOL B., TAŞ N., KOCADAĞLI T., DURMAZ G., GÖKMEN V.

VII. International Nutrition and Dietetics Congress, 14 - 18 April 2010

## Supported Projects

GÖKMEN V., BAŞBOZKURT D. N., PAÇACIOĞLU E., TAŞ N., KOCADAĞLI T., HAMZALIOĞLU B. A., TAVŞANOĞLU Ç., Başbozkurt D. N., Paçacioğlu E., Baysal M., Project Supported by Higher Education Institutions, Biyoisleme Teknikleri Kullanılarak Akrilamid Riski Azaltılmış Protein Biyoyararlanım ve Aroma Özellikleri Geliştirilmiş Girdilerin ve Gıdaların Üretimi, 2023 - Continues

Taş N., Kocadağlı T., Şensoy İ., Ayhan Z., TÜBİTAK International Bilateral Joint Cooperation Program Project, Sustainable Nutrient-Rich New Generation Food Products Development: evaluating the relationship between ingredients, processing methods used, and techno- and bio-functional properties, 2023 - 2025

ATAÇ MOGOL B., HAMZALIOĞLU B. A., TAŞ N., KOCADAĞLI T., Project Supported by Higher Education Institutions, Farklı Tarım Uygulamalarının Mısır Genotiplerinin Serbest Asparajin Seviyesi Ve Akrilamid Oluşturma Potansiyeli Üzerine Etkileri (220N414 nolu TÜBİTAK Projesi Ek Desteği), 2022 - 2023

GÖKMEN V., TAŞ N., KOCADAĞLI T., Project Supported by Higher Education Institutions, Gelecek Yetişkinler İçin Sağlıklı İşlenmiş Gıda Tasarımı Unlu Mamüller İçin Şeker Azaltma Stratejilerinin Geliştirilmesi 120N061 numaralı TÜBİTAK Projesi Ek Bütçe Talebi, 2022 - 2023

Ataç Mogol B., Hamzahoğlu B. A., Taş N., Kocadağlı T., TÜBİTAK International Bilateral Joint Cooperation Program Project, Farklı Tarım Uygulamalarının Mısır Genotiplerinin Serbest Asparajin Seviyesi Ve Akrilamid Oluşturma Potansiyeli Üzerine Etkileri, 2021 - 2023

Kocadağlı T., Gökmen V., Taş N., TÜBİTAK International Bilateral Joint Cooperation Program Project, Healthy Processed Food Design for Future Adults: Development of Sugar Reduction Strategies for Bakery Products, 2020 - 2022

TAŞ N., Project Supported by Higher Education Institutions, Bisküvilerde Aroma Oluşumu Üzerine Kalsiyum Tuzlarının Etkisi, 2017 - 2018

TAŞ N., Project Supported by Higher Education Institutions, Metal Katyonlarının Isıl İşlem Sırasında Aroma Oluşumu Üzerine Etkisi, 2017 - 2018

GÖKMEN V., TUBİTAK Project, FoodresNet Turkish German Food Research Network Joining Competences To Ensure

Food Quality and Safety, 2014 - 2017

TAŞ N., GÖKMEN V., Project Supported by Higher Education Institutions, Model Hamurların Kızartılması Sırasında Yağda 5-Hidroksimetilfurfural Birikimi, 2015 - 2015

TAŞ N., GÖKMEN V., Project Supported by Higher Education Institutions, FINDIKLARDA KAVURMA SIRASINDA GERÇEKLEŞEN MAILLARD REAKSİYONU VE KAMELİZASYONUN ÇOK DEĞİŞKENLİ KİNETİK MODELLENMESİ, 2015 - 2015

## Activities in Scientific Journals

Food and Humanity, Scientific Committee Membership, 2023 - Continues

FOOD RESEARCH INTERNATIONAL, Scientific Committee Membership, 2019 - Continues

## Metrics

Publication: 47

Citation (WoS): 388

Citation (Scopus): 680

H-Index (WoS): 10

H-Index (Scopus): 13

## Scholarships

2211 Tübitak Doktora Bursu, TUBITAK, 2011 - 2017

2210 Yurtiçi Yüksek Lisans Bursu, TUBITAK, 2009 - 2011

## Awards

Taş N., Food Group Early Career Award (2023), Royal Society Of Chemistry , November 2023

Taş N., Hacettepe Üniversitesi Bilim Teşvik Ödülü Fen ve Mühendislik Bilimleri (2021), Hacettepe Üniversitesi, December 2021

Taş N., Gökmen V., Best Poster Award, 3Rd International Congress On Cocoa Coffee And Tea, June 2015

Taş N., Gökmen V., National Food Technology Platform-Special Award, National Technology Platform, May 2013

Taş N., Ataç Mogol B., Gökmen V., Second Best Poster Award, 2Nd Food Safety Congress, December 2010

## Non Academic Experience

Hacettepe Üniversitesi Gıda Mühendisliği Bölümü, Araştırma Görevlisi