



## Assoc. Prof. HÜSEYİN AYVAZ

### Personal Information

**Office Phone:** [+90 286 218 0018](tel:+902862180018) Extension: 20026

**Email:** huseyinayvaz@comu.edu.tr

**Web:** <https://avesis.comu.edu.tr/huseyinayvaz>

**Address:** Çanakkale Onsekiz Mart Üniversitesi Gıda Mühendisiği Bölümü Mühendislik  
Mimarlık Fakultesi 17020 Çanakkale, TURKİYE



### International Researcher IDs

ORCID: 0000-0001-9705-6921

Yoksis Researcher ID: 232843

### Education Information

Doctorate, Ohio State University, Gıda, Ziraat Ve Biyoloji Mühendisliği, Gıda Bilimi Ve Teknolojisi Bölümü, United States Of America 2010 - 2014

Postgraduate, Ohio State University, Gıda, Ziraat Ve Biyoloji Mühendisliği, Gıda Bilimi Ve Teknolojisi Bölümü, United States Of America 2008 - 2010

Undergraduate, Cukurova University, Ziraat Fakültesi, Gıda Mühendisliği, Turkey 2000 - 2004

### Biography

Hüseyin Ayvaz, 1983 yılında Artvin'de doğdu. Çukurova Üniversitesi Gıda Mühendisliği bölümünden 2004 yılında bölüm birincisi ve fakülte üçüncüsü olarak mezun oldu. 2005-2006 yıllarında Avustralya'da bulunan Shaftson International Colleged'da ingilizce eğitimi gördü. Ardından, 2006-2007 yıllarında Jandarma Komando Astteğmen olarak 1 yıl süreyle askerlik hizmetini yaptı. 2007 yılında hem Tübitak yurtçi yüksek lisans bursu hem de 1416 sayılı kanun çerçevesinde yurtdışında Milli Eğitim Bakanlığı adına master ve doktora bursunu kazandı. Milli Eğitim Bakanlığı bursu ile 2008 yılında Çanakkale Onsekiz Mart Üniversitesi Gıda Mühendisliği Bölümü adına öncelikle Amerika Birleşik Devletleri'nde bulunan Saint Thomas üniversitesinde dil kursu, akabinde de Ohio State Üniversitesi, Gıda Bilimi ve Teknolojisi bölümünde master ve doktora yaptı. 2014 yılı sonunda Türkiye'ye dönerek, 2015 yılı Mart ayında Çanakkale Onsekiz Mart üniversitesi'nde aktif olarak çalışmaya başladı. Halen aynı üniversitenin Gıda Mühendisliği bölümünde Araştırma Görevlisi Doktor olarak hizmet vermektedir.

### Foreign Languages

English, C1 Advanced

### Certificates, Courses and Trainings

Education Management and Planning, Thermo Scientific Nicolet IS50 FT-NIR Kullanıcı Sertifikası, Redoks Lab, 2016

Education Management and Planning, FTIR: Techniques of Resolutions Pro training course, Agilent Technologies, 2013

Education Management and Planning, Introductory Meat and Poultry HACCP Training Certificate, The Ohio State

Universiy, 2011

Foreign Language, TOEFL Preperation Course, University of Saint Thomas, 2008

Foreign Language, Intensive General English Course, Shafston International College, 2005

Foreign Language, IELTS Preparation Course, Shafston International College, 2005

## Dissertations

Doctorate, Rapid Assessment of Acrylamide and Its Precursors in Potato Tubers and Snacks by Infrared Spectroscopy, Ohio State University, Gıda, Ziraat Ve Biyoloji Mühendisliği Fakültesi, Gıda Bilimi Ve Teknolojisi Bölümü, 2014

Postgraduate, Influence of Packaging Material and Storage Conditions on the Quality Attributes of Pressure-Assisted Thermally Processed Carrots, Ohio State University, Gıda, Ziraat Ve Biyoloji Mühendisliği Fakültsi, Gıda Bilimi Ve Teknolojisi Bölümü, 2010

## Research Areas

Food Engineering, Food Science, Food Chemistry, Chemistry, Analytical Chemistry, Infrared Spectroscopy, Chemometry, Spectroscopical Methods, Natural Sciences, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2018 - Continues

Research Assistant PhD, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Gıda Mühendisliği, 2015 - Continues

Research Assistant, Ohio State University, Gıda, Ziraat Ve Biyoloji Mühendisliği , Gıda Bilimi Ve Teknolojisi Bölümü, 2010 - 2014

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

### I. Machine Learning-Assisted Near- and Mid-Infrared spectroscopy for rapid discrimination of wild and farmed Mediterranean mussels (*Mytilus galloprovincialis*)

AYVAZ H., TEMİZKAN R., KAYA B., Salman M., Menevseoglu A., AYVAZ Z., Gunes N., Ali Dogan M., Mortaş M.  
Microchemical Journal, vol.196, 2024 (SCI-Expanded)

### II. Infrared spectroscopy-based rapid determination of adulteration in commercial sheep's milk cheese via n-hexane and ethanolic extraction

Menevseoglu A., Gumus-Bonacina C. E., Gunes N., AYVAZ H., Dogan M. A.  
International Dairy Journal, vol.138, 2023 (SCI-Expanded)

### III. Anthocyanins from Agro-Industrial Food Waste: Geographical Approach and Methods of Recovery—A Review

Diaconeasa Z., Iuhas C. I., AYVAZ H., Mortas M., Farcaş A., Mihai M., Danciu C., Stanilă A.  
Plants, vol.12, no.1, 2023 (SCI-Expanded)

### IV. Laser-induced breakdown spectroscopy as a reliable analytical method for classifying commercial cheese samples based on their cooking/ stretching process

Sezer B., ÖZTÜRK M., AYVAZ H., Apaydin H., BOYACI İ. H.  
FOOD CHEMISTRY, vol.390, 2022 (SCI-Expanded)

### V. Infrared spectroscopy combined with chemometrics as a convenient method to detect adulterations in cooking/stretching process in commercial cheese

ÖZTÜRK M., Dogan M. A., Menevseoglu A., AYVAZ H.

- INTERNATIONAL DAIRY JOURNAL, vol.128, 2022 (SCI-Expanded)
- VI. **Rapid discrimination of Turkish commercial hazelnut (*Corylus avellana L.*) varieties using Near-Infrared Spectroscopy and chemometrics**  
Ayvaz H., Temizkan R., Genis H. E., Mortas M., Genis D. O., DOGAN M. A., Nazlim B. A.  
Vibrational Spectroscopy, vol.119, pp.103353, 2022 (SCI-Expanded)
- VII. **Melanoma Inhibition by Anthocyanins Is Associated with the Reduction of Oxidative Stress Biomarkers and Changes in Mitochondrial Membrane Potential**  
Diaconeasa Z., AYVAZ H., Rugina D., Leopold L., Stanila A., Socaciu C., Tabaran F., Luput L., Mada D. C., Pintea A., et al.  
PLANT FOODS FOR HUMAN NUTRITION, vol.72, no.4, pp.404-410, 2017 (SCI-Expanded)
- VIII. **Quantification of soybean oil adulteration in extra virgin olive oil using portable raman spectroscopy**  
Tiryaki G. Y., AYVAZ H.  
JOURNAL OF FOOD MEASUREMENT AND CHARACTERIZATION, vol.11, no.2, pp.523-529, 2017 (SCI-Expanded)
- IX. **Improving the screening of potato breeding lines for specific nutritional traits using portable mid-infrared spectroscopy and multivariate analysis**  
AYVAZ H., BOZDOĞAN A., Giusti M. M., Mortas M., Gomez R., Rodriguez-Saona L. E.  
FOOD CHEMISTRY, vol.211, pp.374-382, 2016 (SCI-Expanded)
- X. **Monitoring multicomponent quality traits in tomato juice using portable mid-infrared (MIR) spectroscopy and multivariate analysis**  
AYVAZ H., Sierra-Cadavid A., Aykas D. P., Mulqueeney B., Sullivan S., Rodriguez-Saona L. E.  
FOOD CONTROL, vol.66, pp.79-86, 2016 (SCI-Expanded)
- XI. **Understanding Tomato Peelability**  
AYVAZ H., Santos A. M., Rodriguez-Saona L. E.  
COMPREHENSIVE REVIEWS IN FOOD SCIENCE AND FOOD SAFETY, vol.15, no.3, pp.619-632, 2016 (SCI-Expanded)
- XII. **High Pressure Effects on Packaging Materials**  
Ayvaz H., Balasubramaniam V. M., Koutchma T.  
HIGH PRESSURE PROCESSING OF FOOD: PRINCIPLES, TECHNOLOGY AND APPLICATIONS, pp.73-93, 2016 (SCI-Expanded)
- XIII. **Application of a Portable Infrared Instrument for Simultaneous Analysis of Sugars, Asparagine and Glutamine Levels in Raw Potato Tubers**  
AYVAZ H., Santos A. M., Moyseenko J., Kleinhenz M., Rodriguez-Saona L. E.  
PLANT FOODS FOR HUMAN NUTRITION, vol.70, no.2, pp.215-220, 2015 (SCI-Expanded)
- XIV. **Application of handheld and portable spectrometers for screening acrylamide content in commercial potato chips**  
Ayvaz H., Rodriguez-Saona L. E.  
FOOD CHEMISTRY, vol.174, pp.154-162, 2015 (SCI-Expanded)
- XV. **The use of infrared spectrometers to predict quality parameters of cornmeal (corn grits) and differentiate between organic and conventional practices**  
AYVAZ H., Plans M., Towers B. N., Auer A., Rodriguez-Saona L. E.  
JOURNAL OF CEREAL SCIENCE, vol.62, pp.22-30, 2015 (SCI-Expanded)
- XVI. **Antiproliferative and Antioxidant Properties of Anthocyanin Rich Extracts from Blueberry and Blackcurrant Juice**  
Diaconeasa Z., Leopold L., Rugina D., AYVAZ H., Socaciu C.  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.16, no.2, pp.2352-2365, 2015 (SCI-Expanded)
- XVII. **Portable Infrared Spectrometer to Characterize and Differentiate Between Organic and Conventional Bovine Butter**  
Pujolras M. P., AYVAZ H., Shotts M., Pittman R. A., Herringshaw S., Rodriguez-Saona L. E.  
JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, vol.92, no.2, pp.175-184, 2015 (SCI-Expanded)
- XVIII. **Application of Portable and Handheld Infrared Spectrometers for Determination of Sucrose Levels in Infant Cereals**

- Lin C., Ayvaz H., Rodriguez-Saona L. E.  
 FOOD ANALYTICAL METHODS, vol.7, no.7, pp.1407-1414, 2014 (SCI-Expanded)
- XIX. **Characterization and Quantitation of Anthocyanins and Other Phenolics in Native Andean Potatoes**  
 Giusti M. M., Polit M. F., Ayvaz H., TAY D., MANRIQUE I.  
 JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.62, no.19, pp.4408-4416, 2014 (SCI-Expanded)
- XX. **Application of infrared microspectroscopy and chemometric analysis for screening the acrylamide content in potato chips**  
 Ayvaz H., PLANS M., Riedl K. M., Schwartz S. J., Rodriguez-Saona L. E.  
 ANALYTICAL METHODS, vol.5, no.8, pp.2020-2027, 2013 (SCI-Expanded)

## Books & Book Chapters

- I. **Infrared and Raman Spectroscopy**  
 RodriguezSaona L. E., AYVAZ H., Randy W.  
 in: Food Analysis, Suzanne Nielsen, Editor, Springer, Cham, pp.107-127, 2017
- II. **High Pressure Effects on Packaging**  
 AYVAZ H., Balasubramaniam V. M., Koutchma T.  
 in: High Pressure Processing of Food, V. M. Balasuamaniam, Gustavo V. Barbosa-Canovas, Huub L. M. Lelieveld, Editor, Springer, New York, pp.73-93, 2016

## Refereed Congress / Symposium Publications in Proceedings

- I. **Application of Near and Mid-Infrared Spectroscopy to Determine Some Quality Parameters of Ezine Cheese**  
 AYVAZ H., Doğan M. A., Atan M., YILDIZ TİRYAKİ G., YÜCEER Y.  
 16th International Conference, Prospects for the 3rd Millennium Agriculture, Cluj, Romania, 28 - 30 September 2017
- II. **The Use of Novel Portable and Handheld Infrared Spectrometers in Food Analysis**  
 AYVAZ H.  
 6th International Congress on Food Technology, Atina, Greece, 18 - 19 March 2017
- III. **Advances in Portable Vibrational Spectroscopy Technologies for Economically Motivated Adulteration of Food Ingredients**  
 Rodriguez Saona L. E., AYVAZ H.  
 International Food Technologists (IFT) Annual Meeting, Chicago, United States Of America, 16 - 19 July 2016
- IV. **Yeni Nesil Taşınabilir Ve Mikro Kızılötesi Spektrometrelerle Balların Botanik Orijinlerinin Ve Fizikokimyasal Karakteristiklerinin Belirlenmesi**  
 AYVAZ H., YILDIZ TİRYAKİ G., AYVAZ Z.  
 IV. Uluslararası Gıda Ar-Ge Proje Pazarı, İzmir, Turkey, 24 May 2016
- V. **Yeni Nesil Taşınabilir Elde Tutulabilir Mikro Kızılötesi Cihazlar Ve Gıda Endüstrisinde Uygulamaları**  
 Kaplan A., AYVAZ H., YILDIZ TİRYAKİ G.  
 Trakya Üniversiteler Birliği Yüksek Lisans Öğrenci Kongresi, Çanakkale, Turkey, 29 - 30 April 2016, pp.25
- VI. **Acrylamide in foods A review and recent updates**  
 AYVAZ H.  
 World Congress on Public Health and Nutrition, Madrid, Spain, 10 - 12 March 2016
- VII. **Application of Infrared Spectrometers for Screening Acrylamide Content in Commercial Potato Chips**  
 AYVAZ H., Rodriguez Saona L. E.  
 9th Workshop FT-IR Spectroscopy in Microbiological and Medical Diagnostic, Berlin, Germany, 24 - 25 December 2013
- VIII. **Applications of Infrared Sensors for Screening Acrylamide Content in Snack Products**

AYVAZ H., Riedl K. M., Giusti M. M., Schwartz S. J., Rodriguez Saona L. E.

IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, United States Of America, 25 - 28 June 2012

## Supported Projects

TUNCEL N. B., AYVAZ H., Geyik Z., Project Supported by Higher Education Institutions, Soğuk Pres Pirinç Kepeği Yağı Üretim Parametrelerinin Optimizasyonu ve Depolama Stabilitesinin Araştırılması, 2018 - 2019

## Metrics

Publication: 74

Citation (WoS): 276

Citation (Scopus): 364

H-Index (WoS): 9

H-Index (Scopus): 10

## Scholarships

Milli Egitim Bakanligi Doktora Bursu, Ministry of Education, 2010 - Continues

Milli Egitim Bakanligi Yuksek Lisans Bursu, Ministry of Education, 2008 - Continues

## Awards

AYVAZ H., Graduate Student Outstanding Research Award, The Ohio State University-Food Science and Technology Department, November 2014

AYVAZ H., 3rd place finisher in the 2012 IFTSA & MARS Product Development Competition at IFT Annual Meeting, IFT-Institute of Food Technologists-, July 2012

AYVAZ H., 3rd place in Nothermal Processing Division poster competition, IFT- Institute of Food Technologists, July 2011

AYVAZ H., 1st place in Poster competititon for PhD category, IFT-Ohio ValleySection Institute of Food Technologists, March 2011

AYVAZ H., Winner of 2nd place in poster presentations in Engineering Mathemaics and Physical Sciences at the 25thAnnual Edwrd F Hayes Graduate Research Forum, The Ohio State University-the 25thAnnual Edward F Hayes Graduate Research Forum, March 2011

AYVAZ H., ABD`de master sırasındaki üstün başarı ödülü, Milli Eğitim Bakanlığı, June 2010

AYVAZ H., • Certificate of Achievement for graduating as the top third soldier from Eskifoca Military School, 2006, Türk Silahlı Kuvvetleri, October 2006

AYVAZ H., • Certificate of Achievement for graduating as the top third student from the College of Agriculture, Cukurova University, Çukurova Üniversitesi, June 2004

AYVAZ H., • Certificate of Achievement for graduating as the top student from the Food Engineering Department of Cukurova University, Çukurova Üniversitesi, June 2004