



**TAGEM**  
R&D AND INNOVATION

CENTRAL RESEARCH INSTITUTE OF FOOD AND  
FEED CONTROL / BURSA



## Esma KORKMAZ, MSc Food Engineer

### EDUCATION

- PhD**  
2019- Bursa Uludag University  
Department of Polymer Materials
- MSc**  
2015-2018 Bursa Technical University  
Faculty of Engineering and Natural  
Sciences - Department of Polymer  
Materials Engineering
- Bachelor's Degree**  
2005-2009 Bursa Uludag University  
Agricultural Faculty/ Department of  
Food Engineering

**LANGUAGE** English YDS 70

### CAREER

- 2011- Food Engineer, Food and Feed Control Central Research  
Institute - BURSA
- 2008-2011 - Food Engineer, Kestel Directorate of District  
Agriculture And Forestry, BURSA
- 2007-2008 - Food Engineer, Kartal Directorate of District  
Agriculture And Forestry, İSTANBUL
- 2005-2005 Food Engineer, Private Sector - Food Industry,  
BURSA


### ABOUT ME


She was born in 1981 in Bursa. In 1993, she graduated from Bursa Uludag University, Department of food engineering.

She started to work in the Ministry of Agriculture and Forestry in 2007. She has been working as an engineer/researcher at the Department of Packaging Technologies and Minerals at the Food and Feed Control Central Research Institute since 2020. She took part in projects intended to materials and articles in contact with foodstuff.

### CONTACT

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## Food Engineer



### ■ **PROJECTS**

#### ■ **Projects Conducted**

1. TAGEM / An Investigation of Residue and Metal Concentration In Food as A Using Silicon and Plastic-Based Utensils During Food Preparation / 2014-2015 / Project No: TAGEM/HSGYAD/14/A05/P01/47 (Researcher).
2. TAGEM / Investigation into The Migration Potential of Fluoropolimers Coating Materials from Pans / 2016-2018 / Project No: TAGEM/HSGYAD/16/A05/P01/99 (Researcher).
3. TAGEM / Determination of Some Properties of Different Commercial Lacquers Used in Cans And Migration Profiles in Food Simulants/ 2017-2020 / Project No: TAGEM/HSGYAD/17/A03/ P01/116 (Coordinator).
4. TAGEM / The Effect of the Packaging Material on the Physicochemical and Sensory Properties and Shelf Life of Virgin Olive Oil / 2017-2020 / Project No: TAGEM/HSGYAD/Ü/18/A3/P5/120 (Researcher).
5. TAGEM / Investigation of Migration Potential in Food Contact PET Packagings / 2018 / Project No: TAGEM/HSGYAD/18/A3/P01/03 (Coordinator).
6. TAGEM / Determination of Chemical Composition of Some Currant Varieties and Investigation of Availability as a Food Ingredient / 2017-2018 / Project No: TAGEM/HSGYAD/17/A03/P06/139 (Researcher).
7. TAGEM / Investigation into The Migration Potential of Metal Substances From Plastic Based Materials Used In Packaging For Infant Formula And Child Food / 2018-2021 / Project No: TAGEM/HSGYAD/Ü/18 /A3/P1/291 (Researcher).
8. TAGEM / Investigation of Antioxidant Properties of Microencapsulated Microalgae-Antioxidant Pair and Their Usability in Food Field / 2018-2021 /Project No: TAGEM/HSGYAD/A/19/A3/P1/938 (Researcher).

#### ■ **Ongoing Projects**

1. TAGEM / Evaluation of The Migration of Photoinitiator Used in Printing Inks of Paper and Flexible Plastic Food Packaging Materials / 2019- / Project No:TAGEM/HSGYAD/Ü/19/A3/P1/933 (Researcher).
2. TAGEM / Determination of Volatile Component Profiles and Some Phenolic Composition of Gemlik Type Varieties (Olea europaea L.) Table Black Olives/ 2019- / (Researcher).
3. TAGEM / Improvement of Barrier (Permeability) Properties of Polymer Based Food Packaging Films by Atomic Layer Deposition (ALD) Method/ 2021-.../ Project No:TAGEM/HSGYAD/Ü/21/A3/P1/2316 (Coordinator).
4. TAGEM / Investigation of the Use Cellulose Nanofiber Obtained from Algae Species as Filling Material in Polysaccharide Oriented Edible Bionanocomposite Coating for Bursa Black Fig /2021-.../ Project No: TAGEM/HSGYAD/Ü/21/A3/P5/2305 (Researcher).
5. TAGEM / Determination of Technological Properties of Istanbul Thyme (Origanum vulgare subsp hirtum) Genotypes Cultivated with Different Fertilizer Applications and Investigation of Use as Supplementary Food / 2022- / (Researcher).



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## ■ **PUBLICATIONS**

### ■ **INTERNATIONAL ARTICLES AND PAPERS**

#### ■ **Articles Published in International Journals**

1. Yağmur, N., Şahin, S., Korkmaz, E. (2020). Microencapsulation of ellagic acid extracted from pomegranate peel onto Spirulina: Characterization, loading, and storage stability properties. *Journal of Food Processing and Preservation*, 45(5) .
2. Manav, H. M., Gürbüz, O., Cumbul, D., Tokat, İ.E., Korkmaz, E., Dağdelen, A.F. (2019). Investigation of overall and melamine migration from melamine bowls. *Acta Alimentaria*, 48(2) 187-195.

#### ■ **International Papers, Seminars, etc.**

1. Korkmaz, E., Çavuş, S, Use of Chitosan in Food, Packaging and Agricultural Applications, 3rd Bioenergy Studies Symposium, 20-21 May 2021, Samsun / Turkey, Poster Presentation.
2. Çavuş, S., Korkmaz, E., Biodegradable Food Packaging Materials, 3rd Bioenergy Studies Symposium, 20-21 May 2021, Samsun / Turkey, Poster Presentation.
3. Korkmaz, E., Koçer , H. B., Çavuş, S., Dağdelen, A. F., Migration of Acetaldehyde from Polyethylene Teraphalate (PET) Food Packaging, 1st International / 11th National Food Engineering Congress 7-9 November 2019, Antalya / Turkey, Poster Presentation.
4. Çavuş, S., Törnük, F., Korkmaz, E., Nanocellulose Material for Food Packaging Applications, 5th International Conference on Natural and Engineering Science (ICNES 2019), 27-30 Ağustos 2019, İstanbul, Poster Presentation.
5. Korkmaz, E., Akyıldız, H.İ., Çavuş, S, Hydrogels in Food Packaging Applications, V. International Agriculture Congress - 5th IAC - 2019 21-24 August 2019, İstanbul, Turkey, Poster Presentation.
6. Dağdelen A.F., Çavuş S., Korkmaz E., Dağdelen A., Validation Procedures of Analytical Methods Used In Controls of Food Contact Materials, International Congress of Agriculture, Enviroment and Health, 26-28 October 2018, Aydın, Poster Presentation.
7. Korkmaz, E., Koçer , H. B., Çavuş, S., Dağdelen, A. F., Migration Risks of Phthalate Esters From Polyethylene Terephthalate (PET) Food Packaging, 2nd International Conference on Agriculture, Forest, Food Sciences and Technologies - ICAFOF 2018, 2-5 April 2018, Izmir, Proceeding Book, p661, Poster Presentation.
8. Çavuş S., Korkmaz E., Dağdelen A.F., Karataş A.B. The Use of Certain Epoxy Derivatives in Food Contact Materials and Articles, 2. International Conference on Agriculture, Food, Forest Sciences and Technologies (ICAFOF), 2-5 April 2018, Izmir, Poster Presentation.
9. Korkmaz, E., Dağdelen, A.F., Çavuş, S., Antimicrobial Activities of Biodegradable Polylactic Acid (PLA) Food Packaging Containing Essential Oils, 4th International Food Congress, 28-29 September 2017, Bursa, Poster Presentation.
10. Çavuş S., Dağdelen A.F., Korkmaz E., A Review of Migration of Photoinitiators from Printing Inks, 4th International Food Congress, 28-29 September 2017, Bursa, Presentation.



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### ▪ **OTHER PUBLICATIONS**

#### ▪ **Ph.D. Thesis, Master Thesis, Reports, Books etc.**

Korkmaz, E., (2018). Investigation of Migration Potential in Food Contact PET Packagings. Master of Science Thesis Bursa Technical University, Bursa, TURKEY.

#### • **Membership, Training, Course, Meeting, Congress, Symposium and Other Activities**

Training on Chemical Contaminants that May Transmit from Food Packaging Materials to Food