

Prof. ALEV BAYINDIRLI

Personal Information

Office Phone: [+90 312 210 5629](tel:+903122105629)

Email: alba@metu.edu.tr

Web: <https://avesis.metu.edu.tr/alba>

Address: ODTÜ Gıda Mühendisliği 06800 Çankaya/ Ankara

Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Food Engineering, Turkey 1985 - 1989

Postgraduate, Middle East Technical University, Faculty Of Engineering, Turkey 1982 - 1985

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Chemical Engineering, Turkey 1978 - 1982

Dissertations

Doctorate, Kinetics of aspergillus oryzae cultivation on starch, Middle East Technical University, Faculty of Engineering, Department of Food Engineering, 1989

Postgraduate, Isolation and purification of red beet root pigment by ultrafiltration, Middle East Technical University, Faculty of Engineering, 1985

Research Areas

Fruits, Vegetables and Nuts, Food Processing (pasteurisation, sterilisation, refrigeration, lyophilisation, etc.), Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Engineering, Department Of Food Engineering, 2003 - Continues

Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Department of Food Engineering, 2009 - 2016

Advising Theses

BAYINDIRLI A., MERT B., Effect of different freezing rates on the texture and quality parameters of selected fruit and vegetable, Postgraduate, M.BULUT(Student), 2015

BAYINDIRLI A., Inactivation mechanism of polyphenol oxidase during ultrasound treatment, Doctorate, H.BALTACIOĞLU(Student), 2014

MERT B., BAYINDIRLI A., Production of micro and nano fibers from hazelnut skin and utilization in biscuits,

Postgraduate, E.YILDIZ(Student), 2014

ALPAS H., BAYINDIRLI A., Inactivation of foodborne pathogens and enzymes by ultrasound under pressure at non-lethal and lethal temperatures in apple and orange juices, Doctorate, B.HÜLYA(Student), 2013

YILDIZ F., BAYINDIRLI A., Effects of edible chitosan coating on quality parameters of pomegranate (punica granatum) arils, Postgraduate, A.Can(Student), 2012

MERT B., BAYINDIRLI A., Application of high dynamic microfluidization to improve some quality parameters and stability of orange juice, Postgraduate, Ö.YÜCE(Student), 2011

BAYINDIRLI A., Effect of ultrasound on drying rate of selected produce, Doctorate, Y.KANTAŞ(Student), 2007

Yener M. E. , Bayındırılı A., Pressurized Liquid Extraction of Phenolic Compounds from Fruit Pomaces, Doctorate, İ.Hasbay(Student), 2006

ALPAS H., BAYINDIRLI A., Evaluation of high pressure pretreatment for enhancing the drying rate of selected fruits and vegetables, Postgraduate, U.YÜCEL(Student), 2006

BAYINDIRLI A., ALPAS H., Effect of high hydrostatic pressure (HHP) on some quality parameters and shelf-life of fruit and vegetable, Postgraduate, S.DEDE(Student), 2005

BAYINDIRLI A., Effect of controlled atmosphere storage, modified atmosphere packaging and gaseous ozone treatment on the survival characteristics of salmonella enteritidis at cherry tomatoes, Postgraduate, E.DAŞ(Student), 2004

BAYINDIRLI A., Inactivation of peroxidase and lipoxygenase in green beans, peas and carrots by a combination of high hydrostatic pressure and mild heat treatment, Postgraduate, Ç.Akyol(Student), 2004

ALPAS H., BAYINDIRLI A., Inactivation of proxidase and lipoxygenase in green beans, peas and carrots by a combination of high hydrostatic pressure and mild heat treatment, Postgraduate, Ç.AKYOL(Student), 2004

BAYINDIRLI A., Effect of hydrogen peroxide high hydrostatic pressure on Salmonella enteritidis in liquid whole egg, Postgraduate, G.İŞIKER(Student), 2002

BAYINDIRLI A., Effects of size and number of perforations on water vapor permeability of polyethylene film., Postgraduate, H.ÖZLEM(Student), 2002

BAYINDIRLI A., Manufacturing a new protective polyethylene based film containing zeolites for packaging of foods, Doctorate, S.NUR(Student), 2000

BAYINDIRLI A., Enzymatic peeling of stone fruits, Postgraduate, İ.Toker(Student), 2000

BAYINDIRLI A., The Effect of component interactions on the structural and functional properties of legume extrudates, Doctorate, H.DOĞAN(Student), 2000

BAYINDIRLI A., Control of enzymatic browning in apple juice from Amasya variety, Postgraduate, N.Fatma(Student), 2000

BAYINDIRLI A., Control of enzymatic browning in apple tuxe from Amasya variety, Postgraduate, N.FATMA(Student), 2000

BAYINDIRLI A., Solute effects and optimization of water activity for the growth of thermophilic fungi, Postgraduate, F.ATİK(Student), 2000

BAYINDIRLI A., Use of a new polymer based film for modified atmosphere packaging of fruits and vegetables, Postgraduate, T.Türkeri(Student), 1999

BAYINDIRLI A., Use of a new polymer based film for modified atmosphere packaging of fruit and vegetables, Postgraduate, T.TÜRKERİ(Student), 1999

BAYINDIRLI A., Control of enzymatic browning in apple juice with antibrowning agents and analysis by using response surface methodology, Postgraduate, H.ÖZOĞLU(Student), 1996

HAMAMCI H., BAYINDIRLI A., Effects of growth conditions and stress applications on the cell composition of bakers' yeast, Doctorate, N.Ertugay(Student), 1995

BAYINDIRLI A., HAMAMCI H., Effects of growth conditions and stress application on the cell composition of bakers yeast, Doctorate, N.ERTUGAY(Student), 1995

BAYINDIRLI A., Peroxidase and lipoxygenase inactivation and ascorbic acid retention during blanching of peas greenbeans and carrots, Postgraduate, B.GÜNEŞ(Student), 1992

Jury Memberships

Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, March, 2018
Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, February, 2018
Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, February, 2018
Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, January, 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Effect of freezing rate and storage on the texture and quality parameters of strawberry and green bean frozen in home type freezer**
Bulut M., Bayer Ö., Kirtıl E., Bayındırlı A.
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.88, pp.360-369, 2018
(Journal Indexed in SCI)
- II. **Secondary structure and conformational change of mushroom polyphenol oxidase during thermosonication treatment by using FTIR spectroscopy**
Baltacıoğlu H., Bayındırlı A., Severcan F.
FOOD CHEMISTRY, vol.214, pp.507-514, 2017 (Journal Indexed in SCI)
- III. **Effect of thermal treatment on secondary structure and conformational change of mushroom polyphenol oxidase (PPO) as food quality related enzyme: A FTIR study**
Baltacıoğlu H., Bayındırlı A., Severcan M., Severcan F.
FOOD CHEMISTRY, vol.187, pp.263-269, 2015 (Journal Indexed in SCI)
- IV. **Inactivation of *Listeria monocytogenes* and *Escherichia coli* by Ultrasonic Waves Under Pressure at Nonlethal (Manosonication) and Lethal Temperatures (Manothermosonication) in Acidic Fruit Juices**
GUZEL B. H., ARROYO C., CONDON S., PAGAN R., BAYINDIRLI A., ALPAS H.
FOOD AND BIOPROCESS TECHNOLOGY, vol.7, no.6, pp.1701-1712, 2014 (Journal Indexed in SCI)
- V. **Preface**
BAYINDIRLI A.
Enzymes in Fruit and Vegetable Processing: Chemistry and Engineering Applications, 2010 (Journal Indexed in SCI)
- VI. **Evaluation of high pressure pretreatment for enhancing the drying rates of carrot, apple, and green bean**
YÜCEL U., ALPAS H., BAYINDIRLI A.
JOURNAL OF FOOD ENGINEERING, vol.98, no.2, pp.266-272, 2010 (Journal Indexed in SCI)
- VII. **Preface**
BAYINDIRLI A.
Enzymes in Fruit and Vegetable Processing: Chemistry and Engineering Applications, 2010 (Journal Indexed in SCI)
- VIII. **Introduction to enzymes**
Bayındırlı A.
ENZYMES IN FRUIT AND VEGETABLE PROCESSING: CHEMISTRY AND ENGINEERING APPLICATIONS, pp.1-18, 2010 (Journal Indexed in SCI)
- IX. **Enzymes in Fruit and Vegetable Processing Chemistry and Engineering Applications Preface**
Bayındırlı A.
ENZYMES IN FRUIT AND VEGETABLE PROCESSING: CHEMISTRY AND ENGINEERING APPLICATIONS, 2010 (Journal Indexed in SCI)
- X. **EFFECT OF HIGH PRESSURE ON LACTOCOCCAL BACTERIOPHAGES**
Avsaroglu M. D., Bozoglu F., Akcelik M., BAYINDIRLI A.
JOURNAL OF FOOD SAFETY, vol.29, no.1, pp.26-36, 2009 (Journal Indexed in SCI)
- XI. **Extraction of total phenolics of sour cherry pomace by high pressure solvent and subcritical fluid and determination of the antioxidant activities of the extracts**
ADİL I. H., YENER M. E., BAYINDIRLI A.

SEPARATION SCIENCE AND TECHNOLOGY, vol.43, no.5, pp.1091-1110, 2008 (Journal Indexed in SCI)

- XII. **Subcritical (carbon dioxide plus ethanol) extraction of polyphenols from apple and peach pomaces, and determination of the antioxidant activities of the extracts**
Adil I. H., Cetin H. I., Yener M. E., Bayindirli A.
JOURNAL OF SUPERCRITICAL FLUIDS, vol.43, no.1, pp.55-63, 2007 (Journal Indexed in SCI)
- XIII. **High hydrostatic pressure treatment and storage of carrot and tomato juices: Antioxidant activity and microbial safety**
DEDE S., Alpas H., Bayindirli A.
JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, vol.87, no.5, pp.773-782, 2007 (Journal Indexed in SCI)
- XIV. **Bubble and pore formation of the high-ratio cake formulation with polydextrose as a sugar- and fat-replacer**
KOÇER D., HİCŞAŞMAZ Z., BAYINDIRLI A., KATNAŞ S.
JOURNAL OF FOOD ENGINEERING, vol.78, no.3, pp.953-964, 2007 (Journal Indexed in SCI)
- XV. **Inactivation of peroxidase and lipoxygenase in carrots, green beans, and green peas by combination of high hydrostatic pressure and mild heat treatment**
AKYOL C., Alpas H., Bayindirli A.
EUROPEAN FOOD RESEARCH AND TECHNOLOGY, vol.224, no.2, pp.171-176, 2006 (Journal Indexed in SCI)
- XVI. **Effect of controlled atmosphere storage modified atmosphere packaging and gaseous ozone treatment on the survival of Salmonella Enteritidis on cherry tomatoes**
DAS E., GÜZİN CANDAN G. C., BAYINDIRLI A.
Food Microbiology, vol.23, pp.430-438, 2006 (Journal Indexed in SCI Expanded)
- XVII. **Efficiency of high pressure treatment on inactivation of pathogenic microorganisms and enzymes in apple, orange, apricot and sour cherry juices**
Bayindirli A., Alpas H., Bozoglu F., HİZAL M.
FOOD CONTROL, vol.17, no.1, pp.52-58, 2006 (Journal Indexed in SCI)
- XVIII. **Lye peeling of 'Tombul' hazelnuts and effect of peeling on quality**
KALEOĞLU M., BAYINDIRLI L. A., Bayindirli A.
FOOD AND BIOPRODUCTS PROCESSING, vol.82, pp.201-206, 2004 (Journal Indexed in SCI)
- XIX. **Modification of water vapour transfer rate of low density polyethylene films for food packaging**
Dirim S. N., Özden Ö., Bayindirli A., Esin A.
JOURNAL OF FOOD ENGINEERING, vol.63, no.1, pp.9-13, 2004 (Journal Indexed in SCI)
- XX. **Effect of L cysteine kojic acid and 4 hexylresorcinol combination on inhibition of enzymatic browning in Amasya apple juice**
İYİDOĞAN N., BAYINDIRLI A.
Journal Of Food Engineering, vol.62, pp.299-304, 2004 (Journal Indexed in SCI Expanded)
- XXI. **Combined effect of high hydrostatic pressure treatment and hydrogen peroxide on Salmonella Enteritidis in liquid whole egg**
Isiker G., Gurakan G. C., Bayindirli A.
EUROPEAN FOOD RESEARCH AND TECHNOLOGY, vol.217, no.3, pp.244-248, 2003 (Journal Indexed in SCI)
- XXII. **Enzymatic peeling of apricots nectarines and peaches**
TOKER İ., BAYINDIRLI A.
Lwt-Food Science And Technology, vol.36, pp.215-221, 2003 (Journal Indexed in SCI Expanded)
- XXIII. **Inhibition of enzymic browning in cloudy apple juice with selected antibrowning agents**
Ozoglu H., Bayindirli A.
FOOD CONTROL, vol.13, pp.213-221, 2002 (Journal Indexed in SCI)
- XXIV. **Inhibition of enzymatic browning in cloudy apple juice with selected antibrowning agents**
BAYINDIRLI A., ÖZOĞLU H.
Food Control, vol.13, pp.213-221, 2002 (Journal Indexed in SCI Expanded)
- XXV. **Inactivation and injury of Escherichia coli O157 : H7 and Staphylococcus aureus by pulsed electric fields**
DAMAR S., Bozoglu F., Hizal M., Bayindirli A.

- WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, vol.18, no.1, pp.1-6, 2002 (Journal Indexed in SCI)
- XXVI. **Modification of a household microwave oven for continuous temperature and weight measurements during drying of foods**
Okmen Z., Bayindirli A.
JOURNAL OF MICROWAVE POWER AND ELECTROMAGNETIC ENERGY, vol.35, no.4, pp.225-231, 2000 (Journal Indexed in SCI)
- XXVII. **EFFECT OF MICROWAVE PROCESSING ON WATER SOLUBLE VITAMINS: KINETIC PARAMETERS**
ÖKMEN Z. A. , BAYINDIRLI A.
INTERNATIONAL JOURNAL OF FOOD PROPERTIES, vol.2, no.3, pp.255-264, 1999 (Journal Indexed in SCI)
- XXVIII. **Stability of a recombinant plasmid carrying alpha-amylase gene in Bacillus subtilis**
Gurakan G. C. , Bayindirli A., Ogel Z., Tanboga P.
WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, vol.14, no.2, pp.293-295, 1998 (Journal Indexed in SCI)
- XXIX. **Fed-batch cultivation of bakers' yeast: Effect of nutrient depletion and heat stress on cell composition**
Ertugay N., Hamamci H., Bayindirli A.
FOLIA MICROBIOLOGICA, vol.42, no.3, pp.214-218, 1997 (Journal Indexed in SCI)
- XXX. **Studies on caustic peeling of apples**
Bayindirli L., Bayindirli A., Sahin S., Sumnu G., Gider S.
JOURNAL OF FOOD SCIENCE AND TECHNOLOGY-MYSORE, vol.33, no.3, pp.240-242, 1996 (Journal Indexed in SCI)
- XXXI. **NONENZYMATIC BROWNING IN CLARIFIED APPLE JUICE AT HIGH-TEMPERATURES - A RESPONSE-SURFACE ANALYSIS**
BAYINDIRLI A., KHALAFI S., YENICERI A.
JOURNAL OF FOOD PROCESSING AND PRESERVATION, vol.19, no.3, pp.223-227, 1995 (Journal Indexed in SCI)
- XXXII. **PEROXIDASE AND LIPOXYGENASE INACTIVATION DURING BLANCHING OF GREEN BEANS GREEN PEAS AND CARROTS**
GÜNEŞ B., BAYINDIRLI A.
Lwt-Food Science And Technology, vol.26, pp.406-410, 1993 (Journal Indexed in SCI Expanded)
- XXXIII. **Kinetic analysis of aspergillus oryzae cultivations on starch**
BAYINDIRLI A., OZILGEN M., UNGAN S.
Biocatalysis and Biotransformation, vol.5, no.1, pp.71-78, 1991 (Journal Indexed in SCI Expanded)
- XXXIV. **MODELING OF SEQUENTIAL BATCH ULTRAFILTRATION OF RED BEET EXTRACT**
BAYINDIRLI A., YILDIZ F., OZILGEN M.
JOURNAL OF FOOD SCIENCE, vol.53, no.5, pp.1418-1422, 1988 (Journal Indexed in SCI)

Articles Published in Other Journals

- A new protective polyethylene based film containing zeolites for the packaging of fruits and vegetables: Film preparation**
Dirim S. N. , Esin A., BAYINDIRLI A.
Turkish Journal of Engineering and Environmental Sciences, vol.27, no.1, pp.1-9, 2003 (Refereed Journals of Other Institutions)

Books & Book Chapters

- Enzymes in Fruit and Vegetable Processing: Chemistry and Engineering Applications**
Bayındırlı A. (Editor)
CRC, New York , New-York, 2010

Supported Projects

BAYINDIRLI A., ÇOLAK M., Project Supported by Higher Education Institutions, Muz Kabuğundan Biyoaktif Bileşiklerin Yüksek Basınç ve Ultrason Destekli Ekstraksiyonu, 2020 - Continues

BAYINDIRLI A., GÜLENC B. E. , Project Supported by Higher Education Institutions, Seçilmiş Meyve Suyu Atıklarının Antioksidan Potansiyelinin Belirlenmesi için Farklı Antioksidan Analizlerinin Karşılaştırılması, 2021 - 2022

BAYINDIRLI A., KARADEMİR Y., Project Supported by Higher Education Institutions, FARKLI FORMÜLASTON VE METOTLAR KULLANILARAK GELİŞTİRİLEN LİPOZOM SİSTEMLERİNİN KARAKTERİZASYONU, 2018 - 2019

BAYINDIRLI A., ÖZTOP H. M. , Deniz H., Bulut M., ÖKMEN Z. A. , Project Supported by Higher Education Institutions, SEÇİLMİŞ MEYVE VE SEBZE ÖRNEKLERİNDE DONDURUCU DONDURMA HIZININ VE FARKLI SICAKLIKLARDA MUHAFAZANIN ÜRÜN KALİTESİNE ETKİSİ, 2014 - 2015

BAYINDIRLI A., SÖYLER U. B. , ÖKMEN Z. A. , Project Supported by Higher Education Institutions, Çay üretim alanlarından toplanan örneklerde fenolik asit profilinin elde edilmesi, 2013 - 2013

Bayındırlı A., Baltacıoğlu H., TUBITAK Project, Polifenol Oksidaz Enziminin Isı-Ultrason Kombinasyonu ile İnaktivasyonu Sırasında Enzimin Yapısında Meydana Gelen Değişimin Fourier Değişim Kızıl Ötesi (FTIR) Spektroskopisi ile İncelenmesi, 2012 - 2013

Yener M. E. , Bayındırlı A., Project Supported by Higher Education Institutions, Biyoaktif Maddelerin Yüksek Basınç Sıvı Ekstraksiyonu ile Elde Edilmesi, 2003 - 2004

Citations

Total Citations (WOS):1199

h-index (WOS):17