

Asst. Prof. MURAT YANAT



Personal Information

Office Phone: [+90 242 310 2418](tel:+902423102418) Extension: 2418

Email: muraty anat@akdeniz.edu.tr

Web: <https://avesis.akdeniz.edu.tr/muraty anat>

International Researcher IDs

ScholarID: MVnSI5MAAAAJ

ORCID: 0000-0003-0516-6934

ScopusID: 57220088403

Yoksis Researcher ID: 416269



Education Information

Doctorate, Wageningen Universiteit, Food Process Engineering, Netherlands 2019 - 2024

Postgraduate, Ege University, The Institute of Science, Turkey 2016 - 2019

Undergraduate, Ege University, The Faculty of Engineering, Food Engineering, Turkey
2010 - 2016

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Chitin nanocrystal reinforced bioplastics with added functionality : Toward sustainable, biodegradable use, Wageningen Universiteit, Food Process Engineering, 2024

Postgraduate, Kabin tipi dondurucuda iki farklı donma hızının çilek ve taze fasulyenin kalite özellikleri üzerine etkisi, Ege University, 2019

Research Areas

Biomaterials, Nanomaterials, Food Engineering

Academic Titles / Tasks

Assistant Professor, Akdeniz University, Faculty of Engineering, Department of Food Engineering, 2024 - Continues

Supervised Theses

Yanat M., Exergy analysis of polylactic acid (PLA) production, Postgraduate, E.Voortman(Student), 2023

Yanat M., The biodegradability of chitin nanocrystals reinforced polylactic acid plastic material, Postgraduate, M.Ma(Student), 2023

Yanat M., The migration properties and the biodegradability of polylactic acid packages reinforced with chitin nanocrystals, Postgraduate, M.Muthurajan(Student), 2022

Yanat M., The antimicrobial activity of chitin and chitosan nanoparticles reinforced polylactic acid films, Postgraduate, V.Mayr(Student), 2022

Yanat M., Meta-analysis of chitin and chitosan antimicrobial activity and experimental design of antimicrobial activity of chitin/chitosan nanoparticles-PLA composite, Postgraduate, X.Cao(Student), 2021

Yanat M., Antioxidant Activity of biodegradable PLA film Reinforced with Chitin Nanocrystals, Postgraduate, P.van(Student), 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Bio-nanocomposites as future food packaging materials: A multi-faceted comparison**
YANAT M., Schroën K.
Reactive and Functional Polymers, vol.209, 2025 (SCI-Expanded)
- II. **Life cycle assessment (LCA) of chitin nanocrystal reinforced polylactic acid (ChNC/PLA) and polyethylene terephthalate (PET) packaging material**
Yanat M., Schroen K.
CARBOHYDRATE POLYMERS, no.348, pp.1-11, 2025 (SCI-Expanded)
- III. **Polylactic acid films reinforced with chitin nanocrystals: Biodegradation and migration behavior**
YANAT M., Muthurajan M., Strubel M., Grolle K., Schroën K.
Food Packaging and Shelf Life, vol.40, 2023 (SCI-Expanded)
- IV. **Advances in chitin-based nanoparticle use in biodegradable polymers: A review**
YANAT M., Schroën K.
Carbohydrate Polymers, vol.312, 2023 (SCI-Expanded)
- V. **Comparison of the Degree of Acetylation of Chitin Nanocrystals Measured by Various Analysis Methods**
YANAT M., Colijn I., de Boer K., Schroën K.
Polymers, vol.15, no.2, 2023 (SCI-Expanded)
- VI. **Chitin Nanocrystals Provide Antioxidant Activity to Polylactic Acid Films**
YANAT M., Colijn I., Schroën K.
Polymers, vol.14, no.14, 2022 (SCI-Expanded)
- VII. **Chitin Nanocrystal Hydrophobicity Adjustment by Fatty Acid Esterification for Improved Polylactic Acid Nanocomposites**
Colijn I, YANAT M., Terhaerd G., Molenveld K., Boeriu C. G., Schroën K.
Polymers, vol.14, no.13, 2022 (SCI-Expanded)
- VIII. **Preparation methods and applications of chitosan nanoparticles; with an outlook toward reinforcement of biodegradable packaging**
YANAT M., Schroën K.
Reactive and Functional Polymers, vol.161, 2021 (SCI-Expanded)
- IX. **The effects of the novel home freezing system on microstructure, color, antioxidant activity, and microbiological properties of strawberries Effets du nouveau système de congélation domestique sur la microstructure, la couleur, l'activité antioxydante et les propriétés microbiologiques des fraises**
Rayman Ergün A., YANAT M., BAYSAL T.
International Journal of Refrigeration, vol.121, pp.228-234, 2021 (SCI-Expanded)

Articles Published in Other Journals

- I. **Effect of freezing rate and storage time on quality parameters of strawberry frozen in modified and home type freezer**
Yanat M., Baysal T.
Hrvatski časopis za prehrambenu tehnologiju, biotehnologiju i nutricionizam, no.13, pp.154-158, 2018 (Peer-Reviewed Journal)

Peer Reviews in Scientific Publications

TRENDS IN FOOD SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, December 2024
REACTIVE AND FUNCTIONAL POLYMERS, Journal Indexed in SCI-E, December 2024
Discover Polymers, Journal Indexed in ESCI, August 2024
Discover Food, Journal Indexed in ESCI, July 2024
FOOD PACKAGING AND SHELF LIFE, Journal Indexed in SCI-E, July 2024
HELIYON, Journal Indexed in SCI-E, January 2023
CARBOHYDRATE POLYMERS, Journal Indexed in SCI-E, January 2023

Metrics

Publication: 10
Citation (Scopus): 368
H-Index (Scopus): 7

Congress and Symposium Activities

19th International Conference on Polysaccharides and Glycoscience (ICPG 2023), Invited Speaker, Praha, Czech Republic, 2023
18th International Conference on Polysaccharides and Glycoscience (ICPG 2022), Invited Speaker, Praha, Czech Republic, 2022
9th International Congress of Food Technologists, Biotechnologists and Nutritionists, Invited Speaker, Zagreb, Croatia, 2018
New trends in Food safety and quality - NIFSA 2017, Invited Speaker, Kaunas, Lithuania, 2017
5th International Conference Sustainable Postharvest And Food Technologies - INOPTTEP 2017, Invited Speaker, Vrnjacka Banja, Serbia, 2017