

Prof. YEKTA KARADUMAN

Personal Information

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International Researcher IDs

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Biography

Prof. Dr. Yekta Karaduman, lisans eğitimini Ege Üniversitesi Tekstil Mühendisliği Bölümünde tamamlamıştır. Yüksek lisans ve doktora çalışmalarını Erciyes Üniversitesi Tekstil Mühendisliği Bölümünde “Doğal lif takviyeli kompozit malzemelerin endüstriyel uygulamaları” üzerine yapmıştır. Doktora sırasında RWTH Aachen-Institut für Textiltechnik (ITA) (Almanya) bünyesinde tekstil takviyeli kompozitler üzerine çalışmalar gerçekleştirmiştir. Doktora sonrası araştırmalarını North Carolina State University (Amerika Birleşik Devletleri) İleri Batarya Teknolojileri laboratuvarında, şarj edilebilir lityum-sülfür bataryalarda nanolif uygulamaları üzerine yürüttükten sonra 2019 yılında Türkiye'ye dönmüştür. Dr. Karaduman, bilimsel çalışmalarını doğal lif esaslı kompozit malzemeler, nanolifler, enerji depolama ve dönüşümü konularında sürdürmektedir.

Education Information

Post Doctorate, North Carolina State University, Wilson College of Textiles, Textile Engineering, Chemistry and Science (TECS), United States Of America 2017 - 2019

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (Dr), Turkey 2009 - 2014

Doctorate, RWTH Aachen-Institut für Textiltechnik (ITA) , Germany 2011 - 2011

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (YI) (Tezli), Turkey 2007 - 2009

Undergraduate, Ege University, Faculty Of Engineering, Tekstil Mühendisliği Bölümü, Turkey 2002 - 2007

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Doğal lif takviyeli sandviç polimerik kompozitler, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (Dr), 2014

Postgraduate, Doğal lif destekli polimer kompozit malzemelerin otomotiv endüstrisinde kullanımı, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (YI) (Tezli), 2009

Research Areas

Direct Energy Conversion and Energy Storage, Technical Textiles, Composites, Nanomaterials, Cellulosic Materials, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Yozgat Bozok University, Institute of Hemp Research, -, 2019 - Continues

Academic and Administrative Experience

Assistant Director of the Institute, Yozgat Bozok University, Institute of Hemp Research, -, 2023 - Continues

BAP Coordinator, Yozgat Bozok University, Rectorate, 2021 - 2023

Director of the Center, Yozgat Bozok University, Rectorate, Proje Koordinasyon Uygulama ve Araştırma Merkezi, 2021 - 2023

Assistant Director of the Institute, Yozgat Bozok University, Institute of Hemp Research, 2020 - 2023

Director of Vocational School, Yozgat Bozok University, Akdağmadeni Vocational School, 2019 - 2020

Courses

Postgraduate

Bilimsel Araştırma Yöntemleri ve Etik, Postgraduate, 2022 - 2023

Kompozit Preform Teknolojisi, Postgraduate, 2022 - 2023

Kompozit Malzemelere Giriş, Postgraduate, 2022 - 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Biodegradation of Hemp Woven Geotextile in Granular Soil**
Bayrakçı E., Balaban E., Güney Y., Onur M. İ., Karaduman Y., Erdem M.
JOURNAL OF THE TEXTILE INSTITUTE, vol.1, no.1, pp.1-10, 2024 (SCI-Expanded)
- II. **Ultrasonication-assisted alkali treatment of hemp fibers to improve the fiber/matrix interface of hemp/epoxy composites: The influence of sodium dodecyl sulfate surfactant**
Karaduman Y., Seçinti Klopff H., Şahbaz Karaduman N.
POLYMER COMPOSITES, vol.1, no.1, pp.1-15, 2024 (SCI-Expanded)
- III. **Production of quasi-unidirectional woven fabrics from water-retted hemp fibers and mechanical characterization of their composites**
Karaduman Y., Şahbaz Karaduman N., Seçinti Klopff H.
JOURNAL OF COMPOSITE MATERIALS, pp.1-14, 2023 (SCI-Expanded)
- IV. **Effect of stacking sequence on the mechanical properties of non-interlaced multiaxial jute yarn/epoxy composites**
Şahbaz Karaduman N., Karaduman Y.
JOURNAL OF COMPOSITE MATERIALS, vol.56, no.13, pp.2083-2094, 2022 (SCI-Expanded)
- V. **SnS hollow nanofibers as anode materials for sodium-ion batteries with high capacity and ultra-long cycling stability**
Jia H., Dirican M., Sun N., Chen C., Zhu P., Yan C., Dong X., Du Z., Guo J., Karaduman Y., et al.
CHEMICAL COMMUNICATIONS, vol.55, no.4, pp.505-508, 2019 (SCI-Expanded)
- VI. **Experimental Investigation on the Flexural and Dynamic Mechanical Properties of Jute Fiber/Cork-reinforced Polyester Sandwich Composites**
KARADUMAN Y.

- BIORESOURCES, vol.13, no.2, pp.3958-3970, 2018 (SCI-Expanded)
- VII. **Flexural behavior of commingled jute/polypropylene nonwoven fabric reinforced sandwich composites**
Karaduman Y., Onal L.
COMPOSITES PART B-ENGINEERING, vol.93, pp.12-25, 2016 (SCI-Expanded)
- VIII. **Effect of Stacking Sequence on Mechanical Properties of Hybrid Flax/Jute Fibers Reinforced Thermoplastic Composites**
Karaduman Y., Onal L., Rawal A.
POLYMER COMPOSITES, vol.36, no.12, pp.2167-2173, 2015 (SCI-Expanded)
- IX. **Viscoelastic properties of surface modified jute fiber/polypropylene nonwoven composites**
Karaduman Y., Sayeed M. M. A., Onal L., Rawal A.
COMPOSITES PART B-ENGINEERING, vol.67, pp.111-118, 2014 (SCI-Expanded)
- X. **Mechanical Properties of Surface Modified Jute Fiber/Polypropylene Nonwoven Composites**
Sayeed M. M. A., Rawal A., Onal L., Karaduman Y.
POLYMER COMPOSITES, vol.35, no.6, pp.1044-1050, 2014 (SCI-Expanded)
- XI. **Dynamic mechanical and thermal properties of enzyme-treated jute/polyester composites**
Karaduman Y., Onal L.
JOURNAL OF COMPOSITE MATERIALS, vol.47, no.19, pp.2361-2370, 2013 (SCI-Expanded)
- XII. **Effect of enzymatic pretreatment on the mechanical properties of jute fiber-reinforced polyester composites**
Karaduman Y., Gokcan D., Onal L.
JOURNAL OF COMPOSITE MATERIALS, vol.47, no.10, pp.1293-1302, 2013 (SCI-Expanded)
- XIII. **Water absorption behavior of carpet waste jute-reinforced polymer composites**
Karaduman Y., Onal L.
JOURNAL OF COMPOSITE MATERIALS, vol.45, no.15, pp.1559-1571, 2011 (SCI-Expanded)
- XIV. **Mechanical Characterization of Carpet Waste Natural Fiber-reinforced Polymer Composites**
Onal L., Karaduman Y.
JOURNAL OF COMPOSITE MATERIALS, vol.43, no.16, pp.1751-1768, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **The Effect of Geotextile Made of Hemp on the Strength of Compacted Soils**
Demir E., Kolay E., Karaduman Y.
Mühendislik bilimleri ve araştırmaları dergisi (Online), vol.1, no.1, pp.1-2, 2022 (Peer-Reviewed Journal)
- II. **Viscoelastic properties of natural fiber reinforced cork based sandwich composites**
KARADUMAN Y.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.24, no.7, pp.1257-1261, 2018 (ESCI)

Books

- I. **Bast fiber composites and their applications**
Karaduman Y.
in: Green Sustainable Process for Chemical and Environmental Engineering and Science, Inamuddin, Tarıq Altalhi, Arwa Alrooqi, Editor, Elsevier Science, Oxford/Amsterdam, Massachusetts, pp.167-193, 2023
- II. **Adli Tekstil**
ŞAHBAZ KARADUMAN N., KARADUMAN Y., Demir N.
in: Adli Bilimler ve Kriminalistik Ansiklopedisi Cilt 9, Hancı Hamit, Vural Ogün, Editor, Adalet Yayınevi, Ankara, pp.4659-4678, 2023

- III. **Adli Elyaf (Lif)**
KARADUMAN Y., ŞAHBAZ KARADUMAN N., POLAT M. F.
in: Adli Bilimler ve Kriminalistik Ansiklopedisi cilt 10, Hancı Hamit, Vural Ogün, Editor, Adalet Yayınevi, Ankara, pp.5245-5266, 2023
- IV. **Thermo-comfort medical textiles for patients**
ŞAHBAZ KARADUMAN N., KARADUMAN Y.
in: Medical Textiles from Natural Resources, Mondal Ibrahim, Editor, Elsevier, The Textile Institute Book Series, Cambridge, pp.395-409, 2022
- V. **High-performance thermal and cold protective clothing**
KARADUMAN Y., ŞAHBAZ KARADUMAN N.
in: Protective Textiles from Natural Resources, Mondal Ibrahim, Editor, Elsevier, The Textile Institute Book Series, Cambridge, pp.295-315, 2022
- VI. **Various fabrication methods employed in fiber reinforced composites**
ŞAHBAZ KARADUMAN N., KARADUMAN Y.
in: Fiber Reinforced Composites: Constituents, Compatibility, Perspectives, and Applications, Joseph Kuruvilla, Oksman Kristiina, George Gejo, Wilson Runcy, Appukuttan Saritha, Editor, Elsevier, Kidlington, pp.25-45, 2021
- VII. **Interfacial Modification of Polypropylene-Based Biocomposites and Bionanocomposites**
KARADUMAN Y., ŞAHBAZ KARADUMAN N.
in: Polypropylene-Based Biocomposites and Bionanocomposites, Visakh. P. M. and Matheus Poletto, Editor, John Wiley and Sons, Hoboken, NJ, pp.315-347, 2018
- VIII. **Interfacial Modification of Hemp Fiber-Reinforced Composites**
Karaduman Y., Özdemir H., Şahbaz Karaduman N., Özdemir G.
in: Natural and Artificial Fiber-Reinforced Composites as Renewable Sources, Ezgi Günay, Editor, Intech, Londrina, pp.17-39, 2018
- IX. **Textile Reinforced Structural Composites for Advanced Applications**
ŞAHBAZ KARADUMAN N., KARADUMAN Y., ÖZDEMİR H., ÖZDEMİR G.
in: Textiles for Advanced Applications, Kumar Bipin, Thakur Suman, Editor, Intech, pp.87-133, 2017
- X. **Reinforcing Potential of Enzymatically Modified Natural Fibers**
ÖNAL L., KARADUMAN Y.
in: Biodegradable Green Composites, Kalia Susheel, Editor, John Wiley and Sons, Hoboken, New Jersey, pp.40-79, 2016

Papers Published in Refereed Scientific Meetings

- I. **Effect of Benzoylation Treatment on the Interface and Mechanical Properties of Hemp/Epoxy Biocomposites**
ŞAHBAZ KARADUMAN N., SEÇİNTİ KLOPF H., KARADUMAN Y.
IX. Polymer Science and Technology Congress with International Participation, Ankara, Turkey, 16 - 18 September 2024, pp.41
- II. **Mechanical Properties of Jute Fiber Reinforced Cork Based Sandwich Composites**
KARADUMAN Y.
International Advanced Researches and Engineering Congress-2017, Osmaniye, Turkey, 16 - 18 November 2017, pp.1652-1655
- III. **Flexural Properties of Natural Bast Fiber/Cork Reinforced Polyester Composites**
KARADUMAN Y.
2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), Nevşehir, Turkey, 11 - 13 October 2017, pp.261-263
- IV. **Preparation and Mechanical Characterization of Luffa Fibre Reinforced Low Density Polyethylene Composites**
Onal L., KARADUMAN Y., Arslan C.

8th Textile Bioengineering and Informatics Symposium, Zadar, Croatia, 14 - 17 June 2015, pp.1-6

V. Doğal Lif Takviyeli Sandviç Yapılı Kompozitlerin Karakterizasyonu

ÖNAL L., KARADUMAN Y.

2. Uluslararası Katılımlı Polimerik Kompozitler Sempozyum Sergi ve Proje Pazarı, İzmir, Turkey, 26 - 28 November 2010, pp.146-160

VI. Doğal Lif Destekli Polimerik Kompozit Malzemeler ve Uygulama Alanları

KARADUMAN Y., ÖNAL L., GÖKTEPE F.

Uluslararası Katılımlı Polimerik Kompozitler Sempozyum Sergi ve Çalıştayları, İzmir, Turkey, 28 - 30 November 2008, pp.71-74

Supported Projects

Karaduman Y., TUBITAK Project, Kenevirde Melezleme Islahı Yöntemiyle Oluşturulacak Bazı Melez Kombinasyonlardan Üstün Özelliklere Sahip Genotiplerin Geliştirilmesi, 2024 - 2027

Karaduman Y., Technopark, Kenevir Esaslı Kompozit Üretimi, 2024 - 2027

Karaduman Y., Şahbaz Karaduman N., Seçinti Klopff H., TUBITAK Project, Kenevir Lifi Takviyeli Polimer Kompozitlerde Lif/Matris Arayüzünün Geliştirilmesinde Mikrodalga Reaksiyonlarının Kullanımı, 2024 - 2025

KARADUMAN Y., ŞAHBAZ KARADUMAN N., DÜNDAR M. A., SEÇİNTİ KLOPF H., Project Supported by Higher Education Institutions, Kenevir Lifi Saç Örgü/Dokuma Yapısal Hibrit Kumaşlarla Takviye Edilmiş Polimer Kompozitlerin Mekanik Özellikleri, 2021 - 2024

ŞAHBAZ KARADUMAN N., KARADUMAN Y., ERBAKAN M., YAZICI L., Project Supported by Higher Education Institutions, Giysilerde Terleme Sonucu Kötü Kokuya Neden Olan Bakterilere Karşı Kenevir Kumaşının ve Kenevir Ekstraktının Antimikrobiyal Etkinliğinin Araştırılması, 2021 - 2024

KOLAY E., KARADUMAN Y., Demir E., Project Supported by Higher Education Institutions, KENEVİRDEN ÜRETİLEN GEOTEKSTİLİN, SIKIŞTIRILMIŞ ZEMİNİN MÜHENDİSLİK ÖZELLİKLERİ ÜZERİNDEKİ ETKİSİNİN İNCELENMESİ, 2021 - 2022

ŞAHBAZ KARADUMAN N., KARADUMAN Y., Project Supported by Higher Education Institutions, Kenevir Lifi Takviyeli Tekstil Kompozitlerinin Mekanik Özellikleri, 2020 - 2022

KARADUMAN Y., ŞAHBAZ KARADUMAN N., KILIÇ İ., Project Supported by Higher Education Institutions, Kenevir Lifi Katkılı Polimer Kompozitlerin Üretilmesi ve Endüstriyel Kullanım Alanlarının Belirlenmesi, 2020 - 2022

Karaduman Y., TUBITAK Project, Solid State Inorganic nanofiber polymer composite electrolytes for lithium batteries, 2017 - 2019

Önal L., TUBITAK Project, Halı telefı jüt ipliklerinin polimerik kompozit malzeme üretiminde kullanımı ve mekanik özellikleri, 2006 - 2009

Peer Reviews in Scientific Publications

POLYMER COMPOSITES, SCI Journal, July 2024

POLYMER COMPOSITES, SCI Journal, June 2024

CELLULOSE, SCI Journal, April 2024

COMPOSITES PART B: ENGINEERING, SCI Journal, March 2024

MATERIALS TODAY COMMUNICATIONS, SCI Journal, February 2024

COMPOSITES PART B: ENGINEERING, SCI Journal, December 2023

POLYMER ENGINEERING AND SCIENCE, SCI Journal, December 2023

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART E: JOURNAL OF PROCESS MECHANICAL ENGINEERING, SCI Journal, May 2023

PLASTICS, RUBBER AND COMPOSITES, SCI Journal, August 2022

COMPOSITE INTERFACES, SCI Journal, August 2022

JOURNAL OF COMPOSITE MATERIALS, SCI Journal, March 2022

POLYMER COMPOSITES, SCI Journal, March 2021
COMPOSITES PART B: ENGINEERING, SCI Journal, December 2020
JOURNAL OF NATURAL FIBERS, SCI Journal, April 2020
ADVANCED COMPOSITES LETTERS, SCI Journal, February 2020
SN APPLIED SCIENCES, SCI Journal, February 2020
POLYMER COMPOSITES, SCI Journal, December 2019
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, SCI Journal, November 2019
COMPOSITES PART B: ENGINEERING, SCI Journal, November 2019
POLYMER COMPOSITES, SCI Journal, June 2019
GAZI UNIVERSITY JOURNAL OF SCIENCE, SCI Journal, January 2019
COMPOSITES PART B: ENGINEERING, SCI Journal, June 2017
COMPOSITES PART B: ENGINEERING, SCI Journal, February 2017

Metrics

Publication: 33
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