

Assoc. Prof. Ali Kılıç

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: N-1714-2014

ScopusID: 55513100100

Yoksis Researcher ID: 27653

Biography

Kilic is currently an assistant professor at Istanbul Technical University. After finishing his MSc on "PP nanofiber webs for aerosol filtration", he continued his PhD studies in the Nonwovens Institute. He studied on "Electret Aerosol Filters and Related Equipment Manufacturing" during his PhD under the direction of Drs Pourdeyhimi, Shim and Yeom.

He currently manages TEMAG Labs which was established in 2003 based at the Gumussuyu Campus of Istanbul Technical University. The studies are concentrated on interdisciplinary field of engineered fabric, their coatings, design and manufacture of specialty instruments for such materials. Focusing on novel fiber and coating applications, TEMAG facilities are divided as Filtration&Separation, Energy, Composites and Biomedical labs. The research is funded by Turkish Science and Technology Council and 7 international/national companies. Center also houses state-of-the-art facilities for product development, analytical services, materials testing, analysis and evaluation.

Education Information

Doctorate, North Carolina State University, College Of Textiles, United States Of America 2009 - 2012

Postgraduate, Istanbul Technical University, Tekstil Teknolojileri Ve Tasarımı Fakültesi, Turkey 2006 - 2008

Undergraduate, Istanbul Technical University, Tekstil Teknolojileri Ve Tasarımı Fakültesi, Turkey 2002 - 2006

Foreign Languages

English

Dissertations

Doctorate, Improving Electret Filter Performance using Melt Additives, North Carolina State University, College Of Textiles, 2012

Postgraduate, Elektroüretim yöntemiyle eriyikten polipropilen nanolif üretimi, İstanbul Teknik Üniversitesi, Tekstil Teknolojileri Ve Tasarımı Fakültesi, 2008

Research Areas

Environmental Engineering, Environmental Technology, Air Pollution and Control, Particle Control, Textile Engineering and Technology, Textile Materials, Textile Machinery, Technical Textiles, Metallurgical and Materials Engineering, Material science and engineering, Composites, Engineering and Technology

Academic Titles / Tasks

Associate Professor, İstanbul Technical University, Tekstil Teknolojileri ve Tasarımı, Tekstil Mühendisliği, 2019 - Continues

Assistant Professor, İstanbul Technical University, Tekstil Teknolojileri ve Tasarımı, Tekstil Mühendisliği, 2018 - 2019
Assistant Professor, İstanbul Technical University, Tekstil Teknolojileri ve Tasarımı, Tekstil Mühendisliği, 2013 - 2018

Courses

Teknik Tekstiller, Postgraduate, 2016 - 2017, 2013 - 2014

Structure and Properties of Fibers, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Aerosol Filtration Performance of Solution Blown PA6 Webs with Bimodal Fiber Distribution**
Gungor M., Selçuk Ş., Toptas A., Kılıç A.
ACS OMEGA, vol.7, no.50, pp.46602-46612, 2022 (SCI-Expanded)
- II. **Improvement of polyethylene fiber wettability and mechanical properties through an environmentally sustainable spinning process**
Seyhan A., Gunaydin B. N., Polat Y., Kılıç A., Demir A., AVCI H.
International Journal of Adhesion and Adhesives, vol.119, 2022 (SCI-Expanded)
- III. **Quasi-static and dynamic mechanical thermal performance of date palm/glass fiber hybrid composites**
Merzoug A., Bouhamida B., Sereir Z., Bezazi A., Kılıç A., CANDAN Z.
JOURNAL OF INDUSTRIAL TEXTILES, vol.51, no.5_suppl, 2022 (SCI-Expanded)
- IV. **Solution blow spinning of piezoelectric nanofiber mat for detecting mechanical and acoustic signals**
Elnabawy E., Farag M., Soliman A., Mahmoud K., Shehata N., Nair R., Kandas I., Atif R., Combrinck M., Khalil J., et al.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.45, 2021 (SCI-Expanded)
- V. **Development and characterization of hybrid composites from sustainable green materials**
YILDIRIM M., Negawo T. A., Kılıç A., CANDAN Z.
GREEN MATERIALS, vol.9, no.4, pp.182-191, 2021 (SCI-Expanded)
- VI. **Aerosol filtration performance of nanofibrous mats produced via electrically assisted industrial-scale solution blowing**
Gungor M., Toptas A., Çalışır M. D., Kılıç A.
POLYMER ENGINEERING AND SCIENCE, vol.61, no.10, pp.2557-2566, 2021 (SCI-Expanded)
- VII. **Effect of solution blown nanofibers on Mode-I fracture toughness and dynamic mechanical properties of carbon fiber-reinforced composites**
POLAT Y., EKİCİ B., Kılıç A.
POLYMER COMPOSITES, vol.42, no.10, pp.5445-5454, 2021 (SCI-Expanded)
- VIII. **Developing centrifugal spun thermally cross-linked gelatin based fibrous biomats for antibacterial wound dressing applications**
Gungor M., Sagirli M. N., Çalışır M. D., Selçuk Ş., Kılıç A.

- POLYMER ENGINEERING AND SCIENCE, vol.61, pp.2311-2322, 2021 (SCI-Expanded)
- IX. **Effect of compatibilizer and fiber loading on ensete fiber-reinforced HDPE green composites: Physical, mechanical, and morphological properties**
Negawo T. A., Polat Y., Kılıç A.
COMPOSITES SCIENCE AND TECHNOLOGY, vol.213, 2021 (SCI-Expanded)
- X. **Thermoresponsive polyurethane films for packaging applications: Effects of film formulation on their properties**
Ilhan I., Kaya M., Turan D., Güneş G., Güner F. S., Kılıç A.
FOOD PACKAGING AND SHELF LIFE, vol.29, 2021 (SCI-Expanded)
- XI. **Submicron aerosol filtration performance of centrifugally spun nanofibrous polyvinylpyrrolidone media**
Meliike G., Çalışır M. D., Akgul Y., Selçuk Ş., Ali D., Kılıç A.
JOURNAL OF INDUSTRIAL TEXTILES, vol.50, no.10, pp.1545-1558, 2021 (SCI-Expanded)
- XII. **Metallophthalocyanine/polyacrylonitrile nanofibers by solution blow spinning technique for enhanced photocatalytic activity by visible light**
Ergun A. B., Sevim A. M., Kılıç A., Gül A.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.13, 2021 (SCI-Expanded)
- XIII. **Mechanical and dynamic mechanical thermal properties of ensete fiber/woven glass fiber fabric hybrid composites**
Negawo T. A., Polat Y., Akgul Y., Kılıç A., Jawaaid M.
COMPOSITE STRUCTURES, vol.259, 2021 (SCI-Expanded)
- XIV. **Fabrication ofco-PVDF/modacrylic/SiO(2)nanofibrous membrane: Composite separator for safe and high performance lithium-ion batteries**
Al Rai A., Stojanovska E., AKGÜL Y., Khan M. M., Kılıç A., Yılmaz Ş.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.7, 2021 (SCI-Expanded)
- XV. **Solution blow spinning (SBS) and SBS-spun nanofibers: Materials, methods, and applications**
Dadol G. C., Kılıç A., Tijing L. D., Lim K. J. A., Cabatingan L. K., Tan N. P. B., Stojanovska E., Polat Y.
MATERIALS TODAY COMMUNICATIONS, vol.25, 2020 (SCI-Expanded)
- XVI. **Self-assembled fibrillar polyethylene crystals with tunable properties**
Seyhan A., Gunaydin B. N., Polat Y., Kılıç A., Demir A., AVCI H.
POLYMER ENGINEERING AND SCIENCE, vol.60, no.9, pp.2176-2189, 2020 (SCI-Expanded)
- XVII. **Nitrogen-doped TiO₂ fibers for visible-light-induced photocatalytic activities**
Calisir M. D., Gungor M., Demir A., Kılıç A., Khan M. M.
Ceramics International, vol.46, no.10, pp.16743-16753, 2020 (SCI-Expanded)
- XVIII. **Structure and performance of electroblown PVDF-based nanofibrous electret filters**
Al Rai A., Stojanovska E., Fidan G., Yetgin E., POLAT Y., Kılıç A., Demir A., Yılmaz Ş.
POLYMER ENGINEERING AND SCIENCE, vol.60, no.6, pp.1186-1193, 2020 (SCI-Expanded)
- XIX. **Mechanical, tribological, and biological properties of carbon fiber/hydroxyapatite reinforced hybrid composites**
AKGÜL Y., AHLATCI H., Turan M. E., ŞİMŞİR H., ERDEN M. A., SUN Y., Kılıç A.
POLYMER COMPOSITES, vol.41, no.6, pp.2426-2432, 2020 (SCI-Expanded)
- XX. **Recent advances in nanofibrous membranes: Production and applications in water treatment and desalination**
Saleem H., Trabzon L., Kılıç A., Zaidi S. J.
DESALINATION, vol.478, 2020 (SCI-Expanded)
- XXI. **Effect of air pressure on nanofiber production in solution blowing method**
POLAT Y., YANGAZ M. U., Çalışır M. D., GÜL M. Z., Demir A., EKİCİ B., Kılıç A.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, no.4, pp.1719-1728, 2020 (SCI-Expanded)
- XXII. **A comparative study on SiO₂ nanofiber production via two novel non-electrospinning methods: Centrifugal spinning vs solution blowing**

- Çalışır M. D., Kılıç A.
MATERIALS LETTERS, vol.258, 2020 (SCI-Expanded)
- XXIII. Characterization of solution blown thermoplastic polyurethane nanofibers modified with *Szygium aromaticum* extract**
Canbay Gökçe E., Akgul Y., Gokce A. Y., Tasdelen-Yucedag C., Kılıç A., Hassanin A.
JOURNAL OF THE TEXTILE INSTITUTE, vol.111, no.1, pp.10-15, 2020 (SCI-Expanded)
- XXIV. Solution blown polymer/biowaste derived carbon particles nanofibers: An optimization study and energy storage applications**
Stojanovska E., Ozturk N. D., POLAT Y., AKBULUT H., Kılıç A.
JOURNAL OF ENERGY STORAGE, vol.26, 2019 (SCI-Expanded)
- XXV. Carbon nanofibers as thick electrodes for aqueous supercapacitors**
Stojanovska E., Kılıç A.
JOURNAL OF ENERGY STORAGE, vol.26, 2019 (SCI-Expanded)
- XXVI. Influence of carbon fiber content on bio-tribological performances of high-density polyethylene**
AKGÜL Y., AHLATCI H., TURAN M. E., ERDEN M. A., SUN Y., Kılıç A.
MATERIALS RESEARCH EXPRESS, vol.6, no.12, 2019 (SCI-Expanded)
- XXVII. Solution blown nanofibrous air filters modified with glass microparticles**
POLAT Y., Calisir M., Gungor M., Sagirli M. N., Atakan R., AKGÜL Y., Demir A., Kılıç A.
JOURNAL OF INDUSTRIAL TEXTILES, 2019 (SCI-Expanded)
- XXVIII. Centrifugally spun silica (SiO₂) nanofibers for high-temperature air filtration**
Tepekiran B. N., Çalışır M. D., Polat Y., Akgul Y., Kılıç A.
AEROSOL SCIENCE AND TECHNOLOGY, vol.53, no.8, pp.921-932, 2019 (SCI-Expanded)
- XXIX. Evaluation of Mechanical and Physical Properties of Hybrid Composites from Food Packaging and Textiles Wastes**
Hamouda T., Hassanin A. H., Saba N., Demirelli M., Kılıç A., Candan Z., Jawaid M.
JOURNAL OF POLYMERS AND THE ENVIRONMENT, vol.27, no.3, pp.489-497, 2019 (SCI-Expanded)
- XXX. Developing and characterization of lignin-based fibrous nanocarbon electrodes for energy storage devices**
Stojanovska E., Pampal E. S., Kılıç A., Quddus M., CANDAN Z.
COMPOSITES PART B-ENGINEERING, vol.158, pp.239-248, 2019 (SCI-Expanded)

Articles Published in Other Journals

- I. GÜÇ TUTUŞUR POLİPROPİLEN POLİMERİ VE LİF UYGULAMALARINDA SON GELİŞMELER VE GELECEK BEKLENTİLERİ**
AVCI H., ÜREYEN M. E., KILIÇ A., Saglam E. A., DEMİR A.
Uludağ University Journal of The Faculty of Engineering, vol.24, no.2, pp.609-632, 2019 (Peer-Reviewed Journal)
- II. HIGH PERFORMANCE FIBERS: A REVIEW ON CURRENT STATE OF ART AND FUTURE CHALLENGES**
AVCI H., Hassanin A., Hamouda T., KILIÇ A.
Eskişehir Osmangazi Üniversitesi Mühendislik ve Mimarlık Fakültesi Dergisi, vol.27, no.2, pp.130-155, 2019 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. Effect of Catalyst Depositing Method on Degredation Rate of Ethanol by Photocatalytic Oxidation**
Küçüksarı A., Canday E., Kılıç A., CEBECİ H.
10th Nanoscience and Nanotechnology Conference, 17 - 21 June 2014
- II. Development and Testing of Nanofiber Filters for Removal of Volatile Organic Compounds VOC in Aircraft Cabins**

Other Publications

- I. **Effect of Light Intensity and Distribution on Photocatalytic Degradation of Ethanol**
Küçüksarı A., Ağma O., Cebeci H., Kılıç A.
Presentation, pp.1, 2016
- II. **Methlene Blue Degredation Via Modified Photocatalytic Water Filters**
Küçüksarı A., Canbay E., Polat Y., Şimşek R., Pampal E., Cebeci H., Kılıç A.
Presentation, pp.1, 2014
- III. **Effect of Catalyst Depositing Method on Degredation Rate of Ethanol by Photocatalytic Oxidation**
Küçüksarı A., Canbay E., Kılıç A., Cebeci H.
Presentation, pp.1, 2014
- IV. **Development and Testing of Nanofiber Filters for Removal of Volatile Organic Compounds VOC in Aircraft Cabins**
Küçüksarı A., Avcı H. O., Kılıç A., Cebeci H.
Presentation, pp.1, 2013

Supported Projects

- Kılıç A., Project Supported by Higher Education Institutions, Nanoparticles on Textiles: Approaches for Novel Functional Structures, 2016 - 2018
- Kılıç A., Project Supported by Higher Education Institutions, FUNCTIONAL COATINGS FOR NANOFIBROUS WATER PRUFİCATİON MEMBRANES, 2015 - 2018
- Kılıç A., Project Supported by Higher Education Institutions, Yenilikçi Hava ve Su fİLTRElerinin Endüstriyel Üretimi, 2015 - 2018
- Kılıç A., Project Supported by Higher Education Institutions, Phosphorescent Blend Nanofiber: Characterization of Photophysical Properties, 2014 - 2018
- Kılıç A., Project Supported by Higher Education Institutions, Fotokatalitik Su Filtreleri Üretimi ve Karakterizasyonu, 2015 - 2016
- Kılıç A., Project Supported by Higher Education Institutions, Yeni Teknolojilerle Bitkisel Ekstarkth Antibakteriyel Nanoliflerin Üretilmesi, 2014 - 2016
- Kılıç A., Project Supported by Higher Education Institutions, Ultrasonik Yöntemle Nanohibrid Fotokatalitik Su Filtrelerinin Üretimi, 2014 - 2015
- Kılıç A., Project Supported by Higher Education Institutions, Santrifüj Eğirme Cihazı İmalatı ve Antibakteriyel Nanoliflerin Üretilmesi, 2014 - 2015

Metrics

- Publication: 125
Citation (WoS): 314
Citation (Scopus): 1341
H-Index (WoS): 9
H-Index (Scopus): 20

Congress and Symposium Activities

International Congress on Textile Coating and Lamination, Invited Speaker, Praha, Czech Republic, 2016
Nonwoven Innovation Academy, Invited Speaker, Leeds, United Kingdom, 2015

Non Academic Experience

NC State University