

Res. Asst. PhD METE BATUHAN DURUKAN

Personal Information

Office Phone: [+90 312 210 7485](tel:+903122107485)

Email: bdurukan@metu.edu.tr

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

International Researcher IDs

ScholarID: [yYt6iaIAAAAJ](https://orcid.org/0000-0001-7714-9012)

ORCID: 0000-0001-7714-9012

Publons / Web Of Science ResearcherID: AAT-6630-2020

ScopusID: 57189519130

Yoksis Researcher ID: 236740

Education Information

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Metalurji Ve Malzeme Mühendisliği (YI) (Tezli), Turkey 2015 - Continues

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Metallurgical And Materials Engineering, Turkey 2017 - 2023

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, Turkey 2009 - 2015

Dissertations

Postgraduate, CARBON NANOTUBE- COBALT OXIDE NANOCOMPOSITES FOR HIGH PERFORMANCE SUPERCAPACITORS, Middle East Technical University, Graduate School of Natural and Applied Sciences, 2017

Research Areas

Material science and engineering, Semiconductor and Superconductor Materials, Chemical and Electrochemical Properties, Corrosion and Corrosion Protection, Composites, Polymeric Materials, Nanomaterials

Academic Titles / Tasks

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2015 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. Two-Dimensional TiS₂ Nanosheet- and Conjugated Polymer Nanoparticle-Based Composites for Sensing Applications

Yeniterzi D., Cevher S., Kandur Baglicakoglu S., Ucar A., DURUKAN M. B., Hacıfendioglu T., YILDIRIM E., ÇIRPAN A., ÜNALAN H. E., Soylemez S.

Langmuir, vol.40, no.43, pp.22960-22972, 2024 (SCI-Expanded)

- II. **Self-Charging Dual-Modal Sensor for Glucose Monitoring Based on Piezoelectric Nanowire/Microgel Hybrid Film**
Kim H., Nam S., DURUKAN M. B., ÜNALAN H. E., Lee H. J.
ADVANCED FUNCTIONAL MATERIALS, vol.34, no.7, 2024 (SCI-Expanded)
- III. **An Edible Supercapacitor Based on Zwitterionic Soy Sauce-Based Gel Electrolyte**
DURUKAN M. B., Keskin D., TUFAN Y., Dincer O., ÇİÇEK M. Ö., YILDIZ B., ÇINAR AYGÜN S., ERCAN B., ÜNALAN H. E.
ADVANCED FUNCTIONAL MATERIALS, vol.34, no.6, 2024 (SCI-Expanded)
- IV. **Synthesis of heterostructured nanocomposites as supercapacitor electrodes and investigation of their electrochemical properties**
Aytürk S. E. Y., ÇITAK A., Aydın E. C., DURUKAN M. B.
Electrochimica Acta, vol.472, 2023 (SCI-Expanded)
- V. **A glucose-responsive microgel-based soft etalon as an epidermal glucose colorimetric sensor**
Nam S., Kim H., Lee S., DURUKAN M. B., ÜNALAN H. E., Lee H. J.
Sensors and Actuators B: Chemical, vol.396, 2023 (SCI-Expanded)
- VI. **Cobalt-doped MoO₃ thin films and dual-band electrochromic devices with excellent cyclic stability**
Tutel Y., Durukan M. B., Hacıoglu S. O., Baskose U. C., Toppare L. K., Unalan H. E.
Applied Materials Today, vol.35, 2023 (SCI-Expanded)
- VII. **3D printing of hexagonal boron nitride nanosheets/poly(lactic acid) nanocomposites for thermal management of electronic devices**
Gorur M. C., DOĞANAY D., DURUKAN M. B., Cicek M. O., KALAY Y. E., Kincal C., Solak N., ÜNALAN H. E.
COMPOSITES PART B-ENGINEERING, vol.265, 2023 (SCI-Expanded)
- VIII. **Ultra-Sensitive Bio-Polymer Iontronic Sensors for Object Recognition from Tactile Feedback**
Çiçek M. Ö., Durukan M. B., Yildiz B., Keskin D., Doğanay D., Çinar Aygün S., Çakir M. P., Ünalán H. E.
Advanced Materials Technologies, vol.8, no.16, 2023 (SCI-Expanded)
- IX. **Double-decker lutetium and europium phthalocyanine composites with reduced graphene oxide as supercapacitor electrode materials**
YABAŞ E., Biçer E., DURUKAN M. B., Keskin D., ÜNALAN H. E.
Journal of Organometallic Chemistry, vol.980-981, 2022 (SCI-Expanded)
- X. **Multifunctional and Physically Transient Supercapacitors, Triboelectric Nanogenerators, and Capacitive Sensors**
Durukan M. B., Çiçek M. Ö., Doğanay D., Gorur M. C., Cinar S., Ünalán H. E.
ADVANCED FUNCTIONAL MATERIALS, vol.32, no.1, 2022 (SCI-Expanded)
- XI. **Fabric based wearable triboelectric nanogenerators for human machine interface**
DOĞANAY D., ÇİÇEK M. Ö., DURUKAN M. B., Altuntas B., Agbahca E., COŞKUN Ş., ÜNALAN H. E.
NANO ENERGY, vol.89, 2021 (SCI-Expanded)
- XII. **Multichromic Vanadium Pentoxide Thin Films Through Ultrasonic Spray Deposition**
TUTEL Y., DURUKAN M. B., Koc S., KOYLAN S., Cakmak H., Kocak Y., Hekmat F., Ozensoy E., Ozbay E., UDUM Y., et al.
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.168, no.10, 2021 (SCI-Expanded)
- XIII. **Highly stable silver-platinum core-shell nanowires for H₂O₂ detection**
Koylan S., Tunca S., Polat G., Durukan M. B., Kim D., Kalay Y. E., Ko S. H., Ünalán H. E.
NANOSCALE, vol.13, no.30, pp.13129-13141, 2021 (SCI-Expanded)
- XIV. **Seamless Monolithic Design for Foam Based, Flexible, Parallel Plate Capacitive Sensors**
ÇİÇEK M. Ö., DOĞANAY D., DURUKAN M. B., Gorur M. C., ÜNALAN H. E.
Advanced Materials Technologies, vol.6, no.6, 2021 (SCI-Expanded)
- XV. **Cobalt Oxide Nanoflakes on Single Walled Carbon Nanotube Thin Films for Supercapacitor Electrodes**
DURUKAN M. B., Yuksel R., ÜNALAN H. E.
ELECTROCHIMICA ACTA, vol.222, pp.1475-1482, 2016 (SCI-Expanded)
- XVI. **Flexible supercapacitor electrodes with vertically aligned carbon nanotubes grown on aluminum foils**

Refereed Congress / Symposium Publications in Proceedings

- I. **Laser Ablated Single Walled Carbon Nanotube Films as Microsupercapacitors**
DURUKAN M. B., çınar k., BEK A., ÜNALAN H. E.
19th International Metallurgy and Materials Congress, 25 - 27 October 2018
- II. **Microcapacitors from Laser Ablated Multi Walled Carbon Nanotube Films**
DURUKAN M. B., kadir c., BEK A., ÜNALAN H. E.
MRS Fall Meeting 2017, 26 November 2017
- III. **Single Walled Carbon Nanotube Thin Films Decorated with Cobalt Oxide Nanoflakes for Supercapacitor Electrodes**
DURUKAN M. B., YÜKSEL R., ÜNALAN H. E.
MES-IS 2017 (2nd International Symposium on Materials for Energy Storage and Conversion), Turkey, 26 September 2017
- IV. **Single Walled Carbon Nanotube Thin Films Decorated with Cobalt Oxide Nanoflakes for Supercapacitor Electrode**
DURUKAN M. B., YÜKSEL R., ÜNALAN H. E.
mESC-IS 2017 2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- V. **Single Walled Carbon Nanotube Cobalt Oxide Nanocomposites as Supercapacitor Electrode Materials**
DURUKAN M. B., YÜKSEL R., ÜNALAN H. E.
MRS Fall Meeting' 2015, 29 November - 04 December 2015

Supported Projects

ÜNALAN H. E., DURUKAN M. B., Project Supported by Higher Education Institutions, MOLİBDEN DİSÜLFÜR (MoS₂)/GRAFEN NANOKOMPOZİTLERİNİN ÜRETİMİ VE SÜPERKAPASİTÖRLERDE KULLANIMI, 2018 - 2019

ÜNALAN H. E., ÖZKUL S., DURUKAN M. B., Project Supported by Higher Education Institutions, KAPASİTİF DEİYONİZASYON PROSESİNİN İYON GİDERME VERİMİNİ ARTTIRMAK AMACI İLE METAL OKSİTLER KULLANILARAK KAPASİTÖRLERİN GELİŞTİRİLMESİ, 2017 - 2017

ÜNALAN H. E., TUBITAK Project, Karbon Nanotüplerle Süperkapasitörlerin Geliştirilmesi, 2014 - 2017

Metrics

Publication: 48

Citation (WoS): 254

Citation (Scopus): 294

H-Index (WoS): 9

H-Index (Scopus): 10