

## **Asst. Prof. Yüksel Akınay**

### **Personal Information**

**Office Phone:** [+90 432 444 5065](tel:+904324445065) Extension: 25664

**Email:** [yukselakinay@yyu.edu.tr](mailto:yukselakinay@yyu.edu.tr)

**Web:** <https://www.yyu.edu.tr/AkademikBirimler/index.php?s=883>

**Address:** Van Yüzüncü Yıl Üniversitesi, Maden Mühendisliği Bölümü

### **Education Information**

Doctorate, Karabuk University, Mühendislik Fakültesi/Metalurji Ve Malzeme Müh., Malzeme Bilimi, Turkey 2015 - 2018

Undergraduate, Yildiz Technical University, Kimya Metalurji Fakültesi/Metalurji Ve Malzeme Müh., Turkey 2005 - 2010

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, Radar soğurucu kompozit malzeme üretimi, Karabuk University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Müh. / Malzeme Bilimi, 2018

Postgraduate, Twip çeliklerinin mekanik ve mikroyapı özelliklerine alaşım elementlerinin etkisi, Karabuk University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Müh. / Malzeme Bilimi, 2015

### **Research Areas**

Mining Engineering and Technology, Metallurgical and Materials Engineering, Material science and engineering, Testing and Control of Materials, Composites, Material Characterization, Nanomaterials, Production Metallurgy, Iron and Steel Production, Engineering and Technology

### **Academic Titles / Tasks**

Assistant Professor, Van Yüzüncü Yıl University, Mühendislik Fakültesi, Maden Mühendisliği, 2018 - Continues

Research Assistant, Karabuk University, Mühendislik Fak., Metalurji Ve Malzeme Müh., 2013 - 2018

### **Academic and Administrative Experience**

Van Yüzüncü Yıl University, 2018 - Continues

### **Courses**

Kompozit Malzemeler, Undergraduate, 2018 - 2019

## Jury Memberships

Post Graduate, Tez Savunma Jürisi, Karabük Üniversitesi, January, 2020

Post Graduate, Tez Savunma Jürisi, Karabük Üniversitesi, January, 2020

Post Graduate, Tez Savunma Jürisi, Karabük Üniversitesi, January, 2020

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

- I. **Wear resistance and tribological properties of GNPs and MWCNT reinforced AlSi18CuNiMg alloys produced by stir casting**  
Turan M. E. , Aydın F., Sun Y., Zengin H., Akinay Y.  
Tribology International, vol.164, 2021 (Journal Indexed in SCI)
- II. **Synthesis of 3D Sn doped Sb<sub>2</sub>O<sub>3</sub> catalysts with different morphologies and their effects on the electrocatalytic hydrogen evolution reaction in acidic medium**  
Akinay Y., Kazici H. C. , Akkuş İ. N. , Salman F.  
Ceramics International, vol.47, pp.29515-29524, 2021 (Journal Indexed in SCI)
- III. **Surface Integrity of NiTi Shape Memory Alloy in Milling with Cryogenic Heat Treated Cutting Tools under Different Cutting Conditions**  
Altas E., Altın Karatas M., Gokkaya H., Akinay Y.  
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, 2021 (Journal Indexed in SCI)
- IV. **Nanotube-Boramic Acid Derivative for Dopamine Sensing**  
Yigit A., Pınar P., Akinay Y., Alma M. H. , Mengeş N.  
CHEMISTRYSELECT, vol.6, no.24, pp.6302-6313, 2021 (Journal Indexed in SCI)
- V. **Microstructure and Chemical Analysis in Pseudoexfoliation Syndrome**  
Yavuzer K., Akinay Y.  
CURRENT EYE RESEARCH, vol.46, no.4, pp.490-495, 2021 (Journal Indexed in SCI)
- VI. **Poly(pyrrole-co-styrene sulfonate)-encapsulated MWCNT/Fe-Ni alloy/NiFe<sub>2</sub>O<sub>4</sub> nanocomposites for microwave absorption**  
Cao Y., Mohamed A. M. , Mousavi M., Akinay Y.  
Materials Chemistry and Physics, vol.259, 2021 (Journal Indexed in SCI)
- VII. **Al<sub>2</sub>O<sub>3</sub>/SiO<sub>2</sub> nanoparticles-coated TiO<sub>2</sub> catalyst on the exhaust pollutants of a diesel engine**  
Kaskun Ergani S., Kocaman A., Akinay Y.  
Applied Nanoscience (Switzerland), 2021 (Journal Indexed in SCI Expanded)
- VIII. **Enhancement of biogas production using SnO<sub>2</sub> nanoparticle-doped mica catalyst**  
Kaskun S., Çalhan R., Akinay Y.  
Biomass Conversion and Biorefinery, 2021 (Journal Indexed in SCI)
- IX. **Improved hydrogen adsorption of ZnO doped multi-walled carbon nanotubes**  
Kaskun S., Akinay Y., Kayfeci M.  
International Journal of Hydrogen Energy, vol.45, pp.34949-34955, 2020 (Journal Indexed in SCI)
- X. **Preparation of nickel doped mesoporous carbon for enhanced microwave absorption performance**  
Song H., Chen J., Li H., Akinay Y.  
Journal of Magnetism and Magnetic Materials, vol.513, 2020 (Journal Indexed in SCI)
- XI. **PEDOT coated Cu-BTC metal-organic frameworks decorated with Fe<sub>3</sub>O<sub>4</sub> nanoparticles and their enhanced electromagnetic wave absorption**  
Niu H., Liu P., Qin F., Liu X., Akinay Y.  
Materials Chemistry and Physics, vol.253, 2020 (Journal Indexed in SCI)

- XII. **A novel approach to prepare polyaniline/Polypyrrole@Cu-BTC/NH<sub>2</sub>-MIL-101(Fe) MOFs for electromagnetic wave absorption**  
Zhou J., Liu D., Xiong Y., Akinay Y.  
Ceramics International, vol.46, no.12, pp.19758-19766, 2020 (Journal Indexed in SCI)
- XIII. **Synthesis and characterization of the pearlescent pigments based on mica deposited with SiO<sub>2</sub>, AlN and TiO<sub>2</sub>: First report of its dielectric properties**  
Akinay Y., Nuri Akkuş I.  
Ceramics International, vol.46, no.11, pp.17735-17740, 2020 (Journal Indexed in SCI)
- XIV. **Synthesis of PPy@Ba<sub>0.5</sub>Sr<sub>0.5</sub>Fe<sub>12</sub>O<sub>19</sub>/CNFs by reverse in-situ polymerization method for microwave absorption applications**  
Guo T., Chang S., Akinay Y.  
Synthetic Metals, vol.266, 2020 (Journal Indexed in SCI)
- XV. **Equivalent analytical model of plain weave composite fabric for electromagnetic shielding applications**  
Kızılçay A. O., Akinay Y.  
Journal of Microwave Power and Electromagnetic Energy, vol.54, pp.245-253, 2020 (Journal Indexed in SCI)
- XVI. **Characterized nano-size curcumin and rosemary oil for the limitation microbial spoilage of rainbow trout fillets**  
Ceylan Z., Meral R., Köse Ş., Şengör G. F., Akinay Y., Durmuş M., Uçar Y.  
LWT-FOOD SCIENCE AND TECHNOLOGY, vol.134, no.11, pp.1-10, 2020 (Journal Indexed in SCI)
- XVII. **The influence of MWCNTs on microwave absorption properties of Co/C and Ba-Hexaferrite hybrid nanocomposites**  
Peibo L., Yize S., Akinay Y.  
Synthetic Metals, vol.263, 2020 (Journal Indexed in SCI Expanded)
- XVIII. **Computation and modeling of microwave absorbing CuO/graphene nanocomposites**  
Akinay Y., Kızılçay A. O.  
Polymer Composites, vol.41, pp.227-232, 2020 (Journal Indexed in SCI Expanded)
- XIX. **Absorbing properties and structural design of PVB/Fe<sub>3</sub>O<sub>4</sub> nanocomposite**  
Akinay Y., Hayat F., Colak B.  
Materials Chemistry and Physics, vol.229, pp.460-466, 2019 (Journal Indexed in SCI Expanded)
- XX. **Synthesis and microwave absorption enhancement of BaTiO<sub>3</sub> nanoparticle/polyvinylbutyral composites**  
Akinay Y., Hayat F.  
JOURNAL OF COMPOSITE MATERIALS, vol.53, pp.593-601, 2019 (Journal Indexed in SCI)
- XXI. **Comparison of microwave absorption properties between BaTiO<sub>3</sub>/Epoxy and NiFe<sub>2</sub>O<sub>4</sub>/Epoxy composites**  
Akinay Y., Hayat F., Kanbur Y., Gökkaya H., Polat S.  
Polymer Composites, vol.39, 2018 (Journal Indexed in SCI Expanded)
- XXII. **Magnetic and microwave absorption properties of PVB/Fe<sub>3</sub>O<sub>4</sub> and PVB/NiFe<sub>2</sub>O<sub>4</sub> composites**  
Akinay Y., Hayat F., Çakır M., Akın E.  
Polymer Composites, vol.39, no.10, pp.3418-3423, 2018 (Journal Indexed in SCI Expanded)
- XXIII. **Investigation of resistance spot welds between dp450 steel and aluminum alloys**  
Akinay Y., HAYAT F.  
Materialpruefung/Materials Testing, vol.58, no.5, pp.408-412, 2016 (Journal Indexed in SCI Expanded)
- XXIV. **Effect of Ni on the mechanical behavior of a high-Mn austenitic TWIP steel**  
Akinay Y., HAYAT F.  
Materialpruefung/Materials Testing, vol.58, no.5, pp.413-417, 2016 (Journal Indexed in SCI)
- XXV. **The influence of the heat treatment on mechanical and microstructure properties of Fe-Mn-C high-manganese steel**  
Akinay Y., HAYAT F.  
KOVVOVE MATERIALY-METALLIC MATERIALS, vol.54, no.2, pp.91-96, 2016 (Journal Indexed in SCI)

## XXVI. Mechanical Properties of Pattern Welded 1075-15N20 Steels

OZKAN F., KIRDAN H., KARA I. H., HUSEM F., OZCELIK S., Akinay Y., CUG H., SUN Y., AHLATCI H.  
MATERIALS TESTING, vol.56, no.10, pp.897-900, 2014 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Design, Synthesis and Antimicrobial Activities of New Carbon Nanotubes Derivatives**  
Yiğit A., Almalı M. N., Akinay Y., Mengeş N.  
Journal of the Institute of Science and Technology, vol.11, no.2, pp.1420-1429, 2021 (Other Refereed National Journals)
- II. **Theoretical aspects of the electropolymerization of some hydroquinonic derivatives**  
Tkach V. V., Kushnir M., De Oliveira S. C., Lystvan V. V., Dytyuchenko I. M., Da Silva A. O., Akinay Y., Luganska O., Yagodynets P., Kormosh Z. O.  
Biointerface Research in Applied Chemistry, vol.11, no.1, pp.7994-8000, 2021 (Refereed Journals of Other Institutions)
- III. **Synthesis and Dielectric Properties of Magnesium Silicate Hydrate Deposited With SnO<sub>2</sub>**  
Akinay Y.  
Sakarya University Journal of Science (SAUJS), vol.24, no.3, pp.455-459, 2020 (International Refereed University Journal)

## Books & Book Chapters

- I. **Microwave-Heating Mechanism and Theory of Material–Microwave Interaction**  
Akinay Y.  
in: Nanoscale Networking and Communications Handbook, John R Vacca, Editor, CRC, New York, New-York, pp.411-425, 2019

## Refereed Congress / Symposium Publications in Proceedings

- I. **The optic and dielectric properties of CuO deposited barite pigments**  
Akinay Y., Akkuş İ. N.  
INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES IN ENGINEERING AND SCIENCE, Şanlıurfa, Turkey, 22 - 24 November 2019, pp.1325-1330
- II. **Preparation and characterization of CuO/Muscovite flakes pearlescent pigment with UV absorption and high NIR reflectance**  
Akinay Y., Akkuş İ. N.  
3rd International Symposium on Natural Hazards and Disaster Management, Van, Turkey, 25 - 27 October 2019, pp.265-270
- III. **EPOKSI-/BaFe<sub>2</sub>O<sub>4</sub> EPOKSI-/PANI KAPLI- BAF<sub>2</sub>O<sub>4</sub> C, I-FT KATMANLI HI-BRI-D KOMPOZI-TLERI-N MI-KRODALGA ABSORBLAMA O-ZELLI-KLERI-NI-N I-NCELENMESI-**  
Akinay Y.  
13. ULUSAL KI-MYA MU-HENDI-SLI-G-I KONGRESI- (UKMK-2018), Van, Turkey, 3 - 06 September 2019, pp.7236-7240
- IV. **Thermal Properties of Graphene Reinforced Fe-Cr- Ni-Cu Alloys Produced by Powder Metallurgy**  
Akinay Y., TURAN M. E.  
Fourth International Iron and Steel Symposium, Karabük, Turkey, 4 - 06 April 2019, pp.370-373
- V. **Complex permittivity, complex permeability and microwave absorption properties of BaTiO<sub>3</sub>/PVB composites**

Aknay Y., HAYAT F., GOKKAYA H.

1st International Conference of Advanced Materials and Manufacturing Technologies (ICAMT'17), Karabük, Turkey, 25 - 27 October 2017

- VI. **Preparation and study on radar absorbing materials of epoxy-Fe<sub>3</sub>O<sub>4</sub> composites and the influence of PANI on microwave absorbing properties of NiFe<sub>2</sub>O<sub>4</sub>/PVB composites**  
Aknay Y., HAYAT F.  
20th International Conference on Advanced Nanotechnology, Amsterdam, Netherlands, 11 - 12 September 2017
- VII. **Thermal, Structural and Mechanical Characterization of Sn-Bi-Cu Hypereutectic Alloy**  
Aknay Y., MEYDANERI TEZEL F., ATALAY AKGUN N.  
The 3rd International Conference on Engineering and Natural Sciences (ICENS 2017), Budapest, Hungary, 3 - 07 May 2017, pp.499
- VIII. **Fabrication and Mechanical Behavior of Aluminum- Matrix Composites Reinforced with Boron Nitride Particles**  
Aknay Y., AKGÜL Y.  
3rd Iron and Steel Symposium (UDCS'17), Karabük, Turkey, 3 - 05 April 2017, pp.535
- IX. **Investigation of the Effect of TiC Content on the Mechanical Properties of the Aluminum/TiC Composites**  
Aknay Y., AKGÜL Y., TURAN M. E.  
3rd Iron and Steel Symposium (UDSC'17), Karabük, Turkey, 3 - 05 April 2017, pp.534
- X. **The Influence of Heat Treatment on Structural Transformations of NiTi alloy**  
Aknay Y., MEYDANERI TEZEL F.  
3rd Iron and Steel Symposium (UDCS'17), Karabük, Turkey, 3 - 05 April 2017, pp.536
- XI. **Microstructural analysis in the twinning induced plasticity (TWIP) steel: Carbide precipitates, twinning formation and mechanical properties**  
Aknay Y., HAYAT F., ŞAHİN S.  
6th International Conference on Science, Management, Engineering and Technology 2017 (ICSMET 2017), Dubai, United Arab Emirates, 15 - 16 February 2017, pp.1-7
- XII. **Effect of graphene nanosheets on crystal structure of polyamide 66 nanofibers European Advanced Materials Congress**  
Aknay Y., POLAT S.  
European Advanced Materials Congress, Stockholms, Sweden, 23 - 25 August 2016, pp.1
- XIII. **Thermal and Surface Properties of a Novel Hybrid Polyimide Containing Fluorine Chains**  
Aknay Y., AKIN E., ÇAKIR M.  
European Advanced Materials Congress, Stockholms, Sweden, 23 - 26 August 2016, pp.1
- XIV. **The Evaluation of The Impact Performance of Twinning Induced Plasticity TWIP Steel**  
Aknay Y., HAYAT F.  
International Conference on Research in Education and Science (ICRES) Conference, Muğla, Turkey, 19 - 22 May 2016, pp.173
- XV. **The Influence of annealing Temperature and Alloying Elements on Formation of carbides and Twinning**  
Aknay Y., HAYAT F.  
International Conference on Research in Education and Science (ICRES) Conference, Muğla, Turkey, 19 - 22 May 2016, pp.182
- XVI. **Effect of the Heat Treatment on Mechanical Properties of High Manganese Steel**  
Aknay Y., HAYAT F.  
Proceedings of the International Conference on Mining, Material and Metallurgical Engineering, Praga, Czech Republic, 11 - 12 August 2014
- XVII. **Mechanical Properties of Pre treated Fumed Silica Reinforced Epoxy Nanocomposite**  
Aknay Y., AKIN E., ÇAKIR M.  
IMSTEC 2016, Nevşehir, Turkey, 6 - 08 April 2014, pp.87-90

## Supported Projects

Akınay Y., Çelik Kazıcı H., Kızılcay A. O. , TUBITAK Project, Sedef Pigment Katkılı Radar Soğurucu Yapısal Kompozitlerin Üretilmesi Ve Geliştirilmesi, 2020 - 2023

## Scientific Refereeing

ACS Applied Materials & Interfaces/Morphology Design of Co-electrospinning MnO-VN/C Nanofibers for Enhancing the Microwave Absorption Performances, SCI Journal, February 2020

Journal of Alloys and Compounds /Dielectric metamaterial absorber based on resonant and tunable strontium titanate artificial atoms , SCI Journal, December 2019

Polymer Composites/MECHANICAL, TRIBOLOGICAL AND BIOLOGICAL PROPERTIES OF CARBON FIBER/HYDROXYAPATITE REINFORCED HYBRID COMPOSITES, SCI Journal, November 2019

Journal of the European Ceramic Society/Enhanced high temperature dielectric polarization of Barium titanate/Magnesium aluminum spinel composites and their potential in microwave absorbing , SCI Journal, August 2019

Journal of Vinyl & Additive Technology/Structural, Electrical, Thermal and Gas Sensing Properties of New Conductive Blend Nanocomposites Based on Polypyrrole/Phenothiazine/Silver Doped Zinc Oxide, SCI Journal, May 2019

ACS Applied Materials & Interfaces/Synthesis and Microwave Absorption Properties of Sulfur-Free Expanded Graphite/Fe<sub>3</sub>O<sub>4</sub> Composites, SCI Journal, April 2019

Journal of Composite Materials/Investigation of wear and corrosion behavior of GNPs doped B<sub>4</sub>C reinforced Al-Si matrix semi-ceramic hybrid composites, SCI Journal, February 2019

Journal of Alloys and Compounds/Flexible and ultrathin electrospun regenerate cellulose nanofibers and d-Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene) composite film for electromagnetic shielding, SCI Journal, February 2019

Journal of Vinyl & Additive Technology/Structural, optical and magnetic properties of Se<sub>0.95</sub>Fe<sub>0.05</sub> /PANI nanocomposites, SCI Journal, January 2019

## Edit Congress and Symposium Activities

7th International Symposium on Innovative Technologies in Engineering and Science, Session Moderator, Şanlıurfa, Turkey, 2019

Fourth International Iron and Steel Symposium (UDCS'19), Session Moderator, Karabük, Turkey, 2019

## Citations

Total Citations (WOS):68

h-index (WOS):6

## Non Academic Experience

Business Establishment Private, Kuralkan Motorlu Araçlar A.Ş

Business Establishment Private, Türksa Makina İmalat A.Ş