Assoc. Prof. Beyhan TATAR

Personal Information

Email: b.tatar@istanbul.edu.tr
Web: https://avesis.istanbul.edu.tr/70263

International Researcher IDs
ORCID: 0000-0003-3463-2009
Publons / Web Of Science ResearcherID: ABA-6195-2020
ScopusID: 18042707800
Yoksis Researcher ID: 100935

Education Information

Doctorate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Physics, Turkey 2003 - 2008
Postgraduate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Physics, Turkey 2000 - 2003
Undergraduate, Firat University, Faculty Of Scıence, Department Of Physıcs, Turkey 1994 - 1998

Research Areas

Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 2021 - Continues
Associate Professor, Tekirdağ Namik Kemal University, Faculty Of Arts And Scıences, 2019 - 2021
Assistant Professor, Tekirdağ Namik Kemal University, Faculty Of Arts And Scıences, 2009 - 2019
Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Physics, 2000 - 2009
Research Assistant, Tokat Gaziosmanpaşa University, Faculty Of Arts And Scıences, 1999 - 2000

Academic and Administrative Experience

Deputy Head of Department, Tekirdağ Namik Kemal University, Faculty Of Arts And Scıences, 2016 - 2021
Meslek Yüksekokulu Yönetim Kurulu Üyesi, Tekirdağ Namik Kemal University, Faculty Of Arts And Scıences, 2014 - 2019

Advising Theses

Tatar B., Paslanmaz çelik levha üretiminde kullanılan asitleme işlemleri için alternatif bir proses tasarımı ve optimizasyonu, Postgraduate, O.AY(Student), 2022
Tatar B., Optoelektronik uygulamalar için MgPc organik yarıiletken ince filmlerin büyütülmesi ve özelliklerinin incelenmesi, Postgraduate, B.GEZEROĞLU(Student), 2019
Tatar B., PVD tekniğiyle büyütülen MoO3 yarıiletken ince filmlerin elektriksel ve optik özelliklerinin incelenmesi, Postgraduate, C.YÖNEY(Student), 2019
Tatar B., Ürgen M. K., Organik yarıiletken tabanlı fotovoltaik aygıtlar için şekilli ince film altlıkların kullanımı ve etkilerinin

incelenmesi, Doctorate, D.DEMİROĞLU(Student), 2019
Tatar B., p-CuPc organik yarıiletken ince filmlerin a-Si altlıklar üzerine kimyasal sprey püskürtme tekniği ile büyütülmesi ve elektriksel ve optik özelliklerinin incelenmesi, Postgraduate, D.DEMİROĞLU(Student), 2012

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Effects of Cd addition to NiTi shape memory alloys on thermal, mechanical and corrosion behaviour**
Balci E., Tatar C., TATAR B., Dagdelen F.
Bulletin of Materials Science, vol.47, no.1, 2024 (SCI-Expanded)

II. **Production of Ho2O3 and Dy2O3 rare earth oxides doped selenium thin film and investigation of surface morphology and optical properties**
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III. **Investigation of structural, electrical and linear/non-linear optical properties of MgPc thin films grown by CSP technique for optoelectronic applications**
TATAR B., Gezeroğlu B.
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IV. **Experimental and theoretical characterization of Dy-doped hydroxyapatites**
İsen F., Kaygili O., Bulut N., Ates T., Osmanlıoğlu F., Keser S., TATAR B., Özcan İ., ATEŞ B., Ercan F., et al.
JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY, vol.59, no.4, pp.849-864, 2023 (SCI-Expanded)

V. **Investigation of the structural, thermal, magnetic and cell viability properties of Ce/Sr co-doped hydroxyapatites**
Ateş H. G., Kaygili O., Bulut N., Osmanlıoğlu F., Keser S., TATAR B., Mahmood B. K., Ates T., Ercan F., Ercan I., et al.
JOURNAL OF MOLECULAR STRUCTURE, vol.1283, 2023 (SCI-Expanded)

VI. **The effect of depositions parameters on the nanostructural and optical properties of CuPc organic thin films growth by oblique angle deposition CSP technique**
TATAR B., Demiroğlu D.
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VII. **Theoretical and experimental investigation of the effects of Pr dopant on the electronic band structure, thermal, structural, in vitro biocompatibility of Er-based hydroxyapatites**
Ahmed L. O., Bulut N., Osmanlıoğlu F., TATAR B., Kebiroglu H., Ates T., KÖYTEPE S., ATEŞ B., Keser S., Kaygili O.
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VIII. **B2O3 reinforced polylactic acid/thermoplastic polyethylene glycol shape memory composites**
Pekdemir M. E., KÖK M., Kanca M. S., Oner E. O., Pekdemir S., Inci S., Kirbag S., TATAR B.
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.34, no.2, pp.605-612, 2023 (SCI-Expanded)

IX. **Improvement in electrical and photovoltaic properties of a-Si/c-Si heterojunction with slanted nano-columnar amorphous silicon thin films for photovoltaic applications**
Tatar B., Demiroglu D., Kazmanli K., Ürgen M. K.
CURRENT APPLIED PHYSICS, vol.15, no.4, pp.511-519, 2015 (SCI-Expanded)

X. **Electrical properties of FePc organic semiconductor thin films obtained by CSP technique for photovoltaic applications**
Tatar B., Demiroglu D.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.31, pp.644-650, 2015 (SCI-Expanded)

XI. **Investigation of structural and electrical properties of p-CuPc/c-Si and p-CuPc/a-Si/c-Si hybrid photodiodes prepared by CSP technique**
Tatar B., Demiroglu D., Ürgen M. K.
MICROELECTRONIC ENGINEERING, vol.126, pp.184-190, 2014 (SCI-Expanded)

XII. **Investigation of Structural and Electrical Properties of Flat a-Si/c-Si Heterostructure Fabricated by EBPVD Technique**
Demiroğlu D., Tatar B., Kazmanlı M. K., Ürgen M. K.

AIP CONFERENCE PROCEEDINGS, vol.1569, no.1, pp.158-161, 2013 (SCI-Expanded)

XIII. **The influence of Er3+ doping on the structural and optical properties of CeO2 thin films grown by PED**
Tatar B., Gokdemir F. P., Pehlivan E., Ürgen M. K.
APPLIED SURFACE SCIENCE, vol.285, pp.409-416, 2013 (SCI-Expanded)

XIV. **Structure and photovoltaic properties of Ag/p-CuPc/a-Si/c-Si/Ag organic-inorganic hybrid heterojunction fabricated by chemical spray pyrolysis technique**
Tatar B., Demiroglu D., Ürgen M. K.
MICROELECTRONIC ENGINEERING, vol.108, pp.150-157, 2013 (SCI-Expanded)

XV. **Transport and storage properties of CrSi2/Si junctions made using the CAPVD technique**
Menda U. D., ÖZDEMİR O., Tatar B., Ürgen M. K., KUTLU K.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.13, no.4, pp.257-266, 2010 (SCI-Expanded)

XVI. **Excess Capacitance Due to Minority Carrier Injection in CrSi2/p-Type Crystalline Si Isotype Junction**
ÖZDEMİR O., Yilmazer U. D., Tatar B., Ürgen M. K., KUTLU K.
JAPANESE JOURNAL OF APPLIED PHYSICS, vol.49, no.9, 2010 (SCI-Expanded)

XVII. **Correlation of DC and AC electrical properties of Al/p-Si structure by I-V-T and C(G/omega)-V-T measurements**
ÖZDEMİR O., Tatar B., Yilmazer D., CHOI F. P., KUTLU K.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.12, no.4-5, pp.133-141, 2009 (SCI-Expanded)

XVIII. **Electrical and photovoltaic properties of Cr/Si Schottky diodes**
Tatar B., BULGURCUOĞLU A. E., CHOI F. P., Aydogan P., Yilmazer D., ÖZDEMİR O., KUTLU K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.34, no.12, pp.5208-5212, 2009 (SCI-Expanded)

XIX. **Conduction mechanism analysis in beta-FeSi2/n-Si heterojunction through J-V-T measurement**
ÖZDEMİR O., Tatar B., Yilmazer D., CHOI F. P., KUTLU K.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.23, no.9, 2008 (SCI-Expanded)

XX. **Synthesis and optical properties of CeO2 nanocrystalline films grown by pulsed electron beam deposition**
Tatar B., Sam E. D., KUTLU K., Uergen M.
JOURNAL OF MATERIALS SCIENCE, vol.43, no.15, pp.5102-5108, 2008 (SCI-Expanded)

XXI. **Synthesis of beta-FeSi2/Si heterojunctions for photovoltaic applications by unbalanced magnetron sputtering**
Tatar B., Kutu K., Uergen M.
THIN SOLID FILMS, vol.516, no.1, pp.13-16, 2007 (SCI-Expanded)

XXII. **Effect of ion beam modifications on the surface and structural properties of beta-FeSi2 thin films**
Tatar B., Kutlu K., Ruergen M.
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XXIII. **Surface characterization of beta-FeSi2/Siheterojunctions prepared by magnetron sputtering**
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SURFACE & COATINGS TECHNOLOGY, vol.201, no.19-20, pp.8373-8376, 2007 (SCI-Expanded)

Articles Published in Other Journals

I. **The Structural Properties of MoO3 Thin Films Grown by Magnetron Sputtering Technique**
TATAR B., YÖNEY C., DEMİROĞLU D.
Journal of Physical Chemistry and Functional Materials, vol.1, no.1, pp.52-56, 2018 (Peer-Reviewed Journal)

II. **Investigation of Electrical and Structural Properties of Spiral Nano Shape a-Si Thin Films Grown Via GLAD Technique for Photovoltaic Applications**
TATAR B.
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, no.2, pp.514-520, 2017 (Peer-Reviewed Journal)

III. **GLAD Tekniği ile Büyütülen Zig-Zag Nono Şekilli a-Si/c-Si Heteroeklemlerin Elektriksel ve Fotovoltaik özelliklerinin İncelenmesi**
TATAR B.
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.29, no.1, pp.11-17, 2017 (Peer-Reviewed Journal)

IV. **Spectroscopic Studies of the Effect of Sputter Etching on beta-FeSi2 Film Growth**
Tatar B., Kutlu K., Ürgen M. K.
Balkan Physics Latter, vol.18, no.1, pp.79-88, 2010 (Peer-Reviewed Journal)

V. **Electrical Properties of Cr/p-type Si Schottky Diodes at room Temperature**
Tatar B.
BALKAN PHYSICS LETTERS, no.24 th INTERNATIONAL PHYSICS CONGRESS, pp.448-450, 2008 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **AISI 304 Ve AISI 430 Paslanmaz Çeliklerin Yüksek Sıcaklık Oksitlerinin Karakterizasyonu**
TATAR B., EKİCİ H., Güraydın B., AY O.
8th INTERNATIONAL IRON & STEEL SYMPOSIUM, İzmir, Turkey, 26 May 2022

II. **The Effect of Different Oxide Characteristics and Acid Combinations on Descailing Capability on Aisi 304 Quality Stainless Steel Surface**
TATAR B., AY O., EKİCİ H., Güraydın B.
Turkish Physical Society 37th International Physics Congress, Muğla, Turkey, 1 - 05 September 2021, vol.3, pp.52-61

III. **Investigation of Descailing Conditions and Oxide Characteristics on the Dissolving of High Temperature Oxides Created at Different Temperatures and Times on AISI 430 Stainless Steel Surface**
TATAR B., AY O., EKİCİ H., Güraydın B.
9TH INTERNATIONAL ADVANCED TECHNOLOGIES SYMPOSIUM (IATS'21), Elazığ, Turkey, 27 - 28 October 2021

IV. **FABRICATION and CHARACTERISTICS of FSS/W SCHOTTKY DIODE**
TATAR C., TATAR B., DAĞDELEN F.
PCFM2019, Nevşehir, Turkey, 25 - 27 June 2019, pp.110-114

V. **The Effects of Lithium Doping on the Crystallinity of SodiumPhosphate Glasses**
TATAR C., KAYĞILI Ö., KESER S., TATAR B., GÜR V., İNCE T.
International Conference on Physical Chemistry and Functional Materials (PCFM'18), Elazığ, Turkey, 19 - 21 June 2018, pp.121

VI. **The Morphological Investigations of Barium-Doped SodiumPhosphate Glasses**
TATAR C., KAYĞILI Ö., KESER S., TATAR B., GÜR V., İNCE T.
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VII. **Structral and Electrical Properties p-MgPc Organic Semiconductor Thin Films Obtained by CSP Technique**
TATAR B., GEZEROĞLU B., DEMİROĞLU D.
International Conference on Physical Chemistry and Functional Materials (PCFM'18), Elazığ, Turkey, 19 June 2018 - 21 June 2019, pp.61-63

VIII. **The Effects of Lithium Doping on the Crystallinity of Sodium Phosphate Glasses**
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IX. **The Structural Characterization of Cobalt-Based Hydroxyapatites**
TATAR C., KAYĞILI Ö., TATAR B., Gür V., İnce T.
International Conference on Physical Chemistry and Functional Materials (PCFM'18), Elazığ, Turkey, 19 - 21 June

2018, pp.65

X. **The Morphological Investigations of Barium-Doped Sodium Phosphate Glasses,**
TATAR C., KAYĞILI Ö., KESER S., TATAR B., Gür V., İnce T.
International Conference on Physical Chemistry and Functional Materials (PCFM'18), Elazığ, Turkey, 19 - 21 June 2018, pp.108

XI. **A Comparative Study to Improve Electrical and Photovoltaic Properties of a Si c Si and SnC a Si c Si Heterojunctions for Photovoltaic Applications**
Demiroğlu D., TATAR B., KAZMANLI M. K., ÜRGEN M. K.
NANOTR 9, Erzurum, Turkey, 24 - 28 June 2013

XII. **Structural and Photovoltaic Properties of a-Si (SNc)/c-Si Heterojunction Fabricated by EBPVD Technique**
Demiroglu D., Tatar B., Kazmanli K., Ürgen M. K.
3rd International Congress on Advances in Applied Physics and Materials Science, Antalya, Turkey, 24 - 28 April 2013, vol.1569, pp.154-157

XIII. **Observation of Excess Current Capacitance Issues on Organic Based Heterojunctions**
ÖZDEMİR O., TATAR B., Aydoğan P., BOZKURT K., KUTLU K.
SolarTR1, Ankara, Turkey, 29 - 30 April 2010

XIV. **Spectroscopic Studies of the Effect of Sputter Etching on beta FeSi2 Film Growth**
TATAR B., KUTLU K., ÜRGEN M. K.
26. International Physics Conferece, Bodrum, Turkey, 24 - 27 September 2009

XV. **Alternative Approach for Determination of Energy Band Gap of Semiconductors Through Electrical Analysis**
ÖZDEMİR O., Tatar B., Yilmazer D., CHOI F. P., Ürgen M. K., KUTLU K.
7th International Conference of the Balkan-Physical-Union, Alexandroupoli, Greece, 9 - 13 September 2009, vol.1203, pp.875-877

XVI. **The Influence of Film Thickness on the Structural and Electrical Ptopertiesof beta FeSi2 Si Heterojunctions**
TATAR B., KUTLU K.
25. International Physics Conference, Bodrum, Turkey, 25 - 29 August 2008

XVII. **Investigation on Structural Properties of Er Doped CeO2 Thin Films Prepared by Pulsed Electron Beam Deposation**
GÖKDEMİR F. P., TATAR B., KUTLU K., ÜRGEN M. K.
25. International Physics Conference, Bodrum, Turkey, 25 - 29 August 2008

XVIII. **Fabrication and Electrical Properties of FePc Si Heterojunctions**
Aydoğan P., TATAR B., KUTLU K.
25. International Physics Conference, Bodrum, Turkey, 25 September - 29 August 2008

XIX. **The Synthesis and Optical Properties of CrSi2 Thin Films Grown by Energetic Arc PVD Technique**
Yılmazer U. D., TATAR B., KUTLU K., ÜRGEN M. K.
25. International Physics Conference, Bodrum, Turkey, 25 - 29 August 2008

XX. **Electrical Properties of Cr Si Schottky Diodes Thorought I V T Measurument**
BULGURCUOĞLU A. E., TATAR B., ÖZDEMİR O., KUTLU K.
25. International Physics Conference, Bodrum, Turkey, 25 - 29 August 2008

XXI. **Cr Si Schottky kontakların Fotovoltaik Özelliklerin İncelenmesi**
TATAR B., BULGURCUOĞLU A. E., Yılmazer D., GÖKDEMİR F. P., ÖZDEMİR O., KUTLU K.
UGHEK'2008: II.Ulusal Güneş ve Hidrojen Enerjisi Kongresi, Eskişehir, Turkey, 12 - 13 June 2008

XXII. **Photovoltaic properties of p CrSi2 n Si 100 Heterojunction Prepared with a Energetic PVD Technique**
TATAR B., Yılmazer D., KUTLU K., ÜRGEN M. K.
NanoTR4 Nanoscience and Nanotechnology 2008 Conference, İstanbul, Turkey, 9 - 13 June 2008

XXIII. **Fabrication and Electrical Properties of Ag p FePc n TiO2 FTO Heterojuntion Photovoltaic Cell**
TATAR B., Aydoğan P., Seçkin E., KUTLU K., ÜRGEN M. K.

International Workshop on Advanced Materials and Devices for Photovoltaic Applications (NANOMAT 2008), Ankara, Turkey, 24 - 25 April 2008

XXIV. **Conduction Mechanism Analysis in b FeSi2 n Si Heterojuction Through J V T Measurement**
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International Workshop on Advanced Materials and Devices for Photovoltaic Applications (NANOMAT 2008), Ankara, Turkey, 24 - 25 April 2008

XXV. **CeO2 Film Growth on ITO Substrates with Pulsed Electron Beam Deposition**
TATAR B., KUTLU K., ÜRGEN M. K.
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XXVI. **Optical properties of beta-FeSi2 Thin films grown by magnetron sputtering**
Tatar B., KUTLU K.
6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.661

XXVII. **The FT IR and Raman Spectroscopic Studies of beta FeSi2 growth on Si 100 and Si 111 Substrates**
TATAR B., KUTLU K., ÜRGEN M. K.
28. European Congress on Molecular Spectroscopy, İstanbul, Turkey, 3 - 08 September 2006

XXVIII. **Modification of Surface and Structural Properties of FeSi2 Thin Films Induced by Ion Source**
TATAR B., KUTLU K., ÜRGEN M. K.
International Nanomat Conference, Antalya, Turkey, 21 - 23 June 2006

XXIX. **Morphological Properties of FeSi2 Films Prepered by Magnetron Sputtering Method**
TATAR B., KUTLU K.
23. International Turk Physics Conference, Muğla, Turkey, 13 - 16 September 2005

XXX. **FeSi2 Si Eklemlerin Elektriksel Özellikleri**
TATAR B., KUTLU K.
22. Türk Fizik Derneği Kongresi, Bodrum, Turkey, 14 - 17 September 2004

Supported Projects

Tatar B., Project Supported by Higher Education Institutions, Synthesis and determination of electrical properties of FePc and CuPc organic semiconductor films produced by chemical spray pyrolysis technique, 2013 - 2016
Tatar B., Ürgen M. K., TUBITAK Project, The Design of Shaped Thin Films Used for the Organic Semiconductors Bases Photovoltaic Devices and Invetigation of the Effects of These Substrates, 2012 - 2015
Tatar B., Project Supported by Higher Education Institutions, Kimyasal sprey püskürtme tekniği ile üretilen CuPc Si Heteroeklemlerin elektriksel ve optik özellikleri, 2010 - 2013
Tatar B., Project Supported by Higher Education Institutions, CeO2 filmlerin sentezi ve optik özelliklerini incelenmesi, 2009 - 2012

Metrics

Publication: 58
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