

## Prof. VİLDAN BİLGİN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: A-7345-2018

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### Education Information

Doctorate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Fizik, Turkey 1998 - 2003

Postgraduate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Fizik, Turkey 1996 - 1998

Undergraduate, Eskisehir Osmangazi University, Fen Edebiyat Fakültesi, Fizik, Turkey 1992 - 1996

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, ZnO Filmlerinin Bazı Elektrik, Optik, Yapısal ve Yüzeysel Özellikleri Üzerine Kalay Katkısının Etkisi , Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Fizik, 2003

Postgraduate, Ultrasonik Spray Pyrolysis Metodu İle Farklı Taban Sıcaklıklarında Elde Edilen CdS Filmlerinin Bazı Fiziksel Özelliklerinin İncelenmesi , Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Fizik, 1998

### Research Areas

Surfaces, Interfaces, Thin Films and Nanosystems, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Magnetic Properties and Materials, Optoelectronic Materials and Devices, Semiconducting Materials and Devices, Solar energy, Physics, Interdisciplinary Physics and Related Science and Technology Areas, Materials Science, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Natural Sciences

### Academic Titles / Tasks

Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2015 - Continues

Associate Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2007 - 2015

Associate Professor, Eskisehir Osmangazi University, Fen Edebiyat Fakültesi, Fizik, 2007 - 2007

Research Assistant PhD, Eskisehir Osmangazi University, Fen Edebiyat Fakültesi, Fizik, 2003 - 2007

Research Assistant, Eskisehir Osmangazi University, Fen Edebiyat Fakültesi, Fizik, 1997 - 2003

## Advising Theses

BİLGİN V., Fotovoltaik Güneş Hücrelerinde Kullanılabilecek n-CdS:F Ve p-PbS:Ag İnce Filmlerinin Üretimi Ve Karakterizasyonu, Doctorate, E.Sarıca(Student), 2017

BİLGİN V., Fotovoltaik Uygulamalar için Ultrasonik Spray Pyrolysis Tekniği ile Üretilen CdO:Pb ve CuO:In İnce Filmlerin Karakterizasyonu, Doctorate, B.Demirselçuk(Student), 2017

BİLGİN V., Ultrasonik Kimyasal Püskürtme ile Üretilen Vanadyum Oksit Filmleri: Taban Sıcaklığının Etkisi, Postgraduate, H.Hakan(Student), 2016

BİLGİN V., Fotovoltaik Güneş Gözesi Uygulamaları İçin Cd<sub>1-x</sub>Zn<sub>x</sub>S İnce Filmlerinin Büyütülmesi ve Karakterizasyonu, Postgraduate, T.Yapan(Student), 2014

BİLGİN V., Ultrasonik Kimyasal Püskürtme Tekniği ile Vanadyum Katkılı ZnO Filmlerinin Büyütülmesi ve Karakterizasyonu, Postgraduate, E.Sarıca(Student), 2012

BİLGİN V., ZnO İnce Filmleri: Co Katkısının Etkisi, Postgraduate, B.Demirselçuk(Student), 2010

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Non-stoichiometric effect and disorder in as-prepared Cu<sub>2</sub>ZnSnS<sub>4</sub> films deposited at different temperatures by ultrasonic spray pyrolysis**  
Gunes İ., Bilgin V., Sarica E.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.152, pp.107120, 2022 (SCI-Expanded)
- II. **Optimization of chemically sprayed ZnS films by Mn doping**  
DEMİRSELÇUK B., Kus E., KÜÇÜKARSLAN A., Sarica E., AKYÜZ İ., BİLGİN V.  
Physica B: Condensed Matter, vol.622, 2021 (SCI-Expanded)
- III. **Ultrasonically sprayed cobalt oxide thin films: Enhancing of some physical properties by nickel doping**  
Kus E., KÜÇÜKARSLAN A., DEMİRSELÇUK B., Sarica E., AKYÜZ İ., BİLGİN V.  
Materials Letters, vol.297, 2021 (SCI-Expanded)
- IV. **Sol-gel derived ZnO:Sn thin films and fabrication of n-ZnO:Sn/p-Si heterostructure**  
Sarica E., GÜNEŞ İ., AKYÜZ İ., BİLGİN V., ERTÜRK K.  
OPTICAL MATERIALS, vol.118, 2021 (SCI-Expanded)
- V. **Improvement of structural, optical and magnetic properties of cobalt oxide thin films by doping with iron**  
KÜÇÜKARSLAN A., Kus E., Sarica E., AKYÜZ İ., BİLGİN V., DEMİRSELÇUK B.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.7, 2021 (SCI-Expanded)
- VI. **Phase transition of ultrasonically sprayed VO<sub>x</sub> thin films: The role of substrate temperature**  
Sarica E., BİLGİN V., AKYÜZ İ.  
OPTİK, vol.228, 2021 (SCI-Expanded)
- VII. **Characterization of CdS films and CdS/Si heterojunctions prepared by ultrasonic spray pyrolysis and their response to light**  
BİLGİN V., Sarica E., DEMİRSELÇUK B., ERTÜRK K.  
PHYSICA B-CONDENSED MATTER, vol.599, 2020 (SCI-Expanded)
- VIII. **Iron doped ZnO thin films deposited by ultrasonic spray pyrolysis: structural, morphological, optical, electrical and magnetic investigations**  
BİLGİN V., Sarica E., DEMİRSELÇUK B., Turkyılmaz S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.20, pp.17542-17551, 2018 (SCI-Expanded)

- IX. **Iron doped ZnO thin films deposited by ultrasonic spray pyrolysis: structural, morphological, optical, electrical and magnetic investigations**  
 BİLGİN V., Sarıca E., DEMİRSELÇUK B., TURKYILMAZ S.  
 Journal of Materials Science: JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.20, pp.17542-17551, 2018 (SCI-Expanded)
- X. **Effect of Pb:S molar ratio in precursor solution on the properties of lead sulphide thin films by ultrasonic spray pyrolysis**  
 Sarıca E., BİLGİN V.  
 MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.71, pp.42-49, 2017 (SCI-Expanded)
- XI. **Study of some physical properties of ultrasonically spray deposited silver doped lead sulphide thin films**  
 Sarıca E., BİLGİN V.  
 MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.68, pp.288-294, 2017 (SCI-Expanded)
- XII. **Structural, optical, electrical and magnetic studies of ultrasonically sprayed ZnO thin films doped with vanadium**  
 Sarıca E., BİLGİN V.  
 SURFACE & COATINGS TECHNOLOGY, vol.286, pp.1-8, 2016 (SCI-Expanded)
- XIII. **Ultrasonically sprayed ZnO:Co thin films: Growth and characterization**  
 DEMİRSELÇUK B., BİLGİN V.  
 APPLIED SURFACE SCIENCE, vol.273, pp.478-483, 2013 (SCI-Expanded)
- XIV. **Some physical properties of In doped copper oxide films produced by ultrasonic spray pyrolysis**  
 Kose S., Ketenci E., BİLGİN V., Atay F., Akyuz I.  
 CURRENT APPLIED PHYSICS, vol.12, no.3, pp.890-895, 2012 (SCI-Expanded)
- XV. **Growth, Electrical, and Optical Study of ZnS:Mn Thin Films**  
 OZUTOK F., Erturk K., BİLGİN V.  
 ACTA PHYSICA POLONICA A, vol.121, no.1, pp.221-223, 2012 (SCI-Expanded)
- XVI. **Study of Ultrasonically Sprayed ZnO Films: Thermal Annealing Effect**  
 OZUTOK F., DEMİRSELÇUK B., SARICA E., TURKYILMAZ S., BİLGİN V.  
 ACTA PHYSICA POLONICA A, vol.121, no.1, pp.53-55, 2012 (SCI-Expanded)
- XVII. **Influence of Annealing Temperature on the Electrical and Optical Properties of CdS Thin Films**  
 ELMAS S., ÖZCAN S., ÖZDER S., BİLGİN V.  
 ACTA PHYSICA POLONICA A, vol.121, no.1, pp.56-58, 2012 (SCI-Expanded)
- XVIII. **Optical, structural and surface characterization of CdO:Mg films**  
 Atay F., Akyuz I., Kose S., Ketenci E., BİLGİN V.  
 JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.22, no.5, pp.492-498, 2011 (SCI-Expanded)
- XIX. **Optical, structural and surface characterization of ultrasonically sprayed CdO:F films**  
 Akyuz I., Kose S., Ketenci E., BİLGİN V., Atay F.  
 JOURNAL OF ALLOYS AND COMPOUNDS, vol.509, no.5, pp.1947-1952, 2011 (SCI-Expanded)
- XX. **Optical characterization of SnO<sub>2</sub>:F films by spectroscopic ellipsometry**  
 Atay F., BİLGİN V., Akyuz I., Ketenci E., Kose S.  
 JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.356, pp.2192-2197, 2010 (SCI-Expanded)
- XXI. **Electrical, structural and surface properties of fluorine doped tin oxide films**  
 BİLGİN V., Akyuz I., Ketenci E., Kose S., Atay F.  
 APPLIED SURFACE SCIENCE, vol.256, no.22, pp.6586-6591, 2010 (SCI-Expanded)
- XXII. **Optical characterization and determination of carrier density of ultrasonically sprayed CdS:Cu films**  
 Kose S., Atay F., BİLGİN V., Akyuz I., Ketenci E.  
 APPLIED SURFACE SCIENCE, vol.256, no.13, pp.4299-4303, 2010 (SCI-Expanded)
- XXIII. **Preparation and characterization of aluminum-incorporated cadmium oxide films**  
 Akyuz I., Kose S., Atay F., BİLGİN V.  
 MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.13, no.2, pp.109-114, 2010 (SCI-Expanded)
- XXIV. **Preparation and Characterization of Ultrasonically Sprayed Zinc Oxide Thin Films Doped with**

## **Lithium**

Bilgin V.

JOURNAL OF ELECTRONIC MATERIALS, vol.38, no.9, pp.1969-1978, 2009 (SCI-Expanded)

- XXV. **Growth and Characterization of Zn-Incorporated Copper Oxide Films**  
Engin M., Atay F., Kose S., BİLGİN V., Akyuz I.  
JOURNAL OF ELECTRONIC MATERIALS, vol.38, no.6, pp.787-796, 2009 (SCI-Expanded)
- XXVI. **In doped CdO films: Electrical, optical, structural and surface properties**  
Kose S., Atay F., BİLGİN V., Akyuz I.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.34, no.12, pp.5260-5266, 2009 (SCI-Expanded)
- XXVII. **Some physical properties of copper oxide films: The effect of substrate temperature**  
Kose S., Atay F., BİLGİN V., Akyuz I.  
MATERIALS CHEMISTRY AND PHYSICS, vol.111, pp.351-358, 2008 (SCI-Expanded)
- XXVIII. **Prediction of optical parameters of Sn doped CdO films using neural network**  
Erturk K., Kose S., Atay F., Bilgin V., AKYUZ I., HACIİSMAİLOĞLU M. C., KÜÇÜK İ., DEREBAŞI N.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.10, no.2, pp.335-338, 2008 (SCI-Expanded)
- XXIX. **The investigation of Cu doped CdS films produced by ultrasonic spray pyrolysis technique**  
Atay F., Bilgin V., Akyuz I., Ketenci E., Kose S., Erturk K.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.10, no.2, pp.331-334, 2008 (SCI-Expanded)
- XXX. **The effect of annealing temperature on the structural and electrical properties of ultrasonically sprayed cadmium oxide films**  
Akyuz I., Kose S., Atay F., Bilgin V.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.9, no.12, pp.3812-3815, 2007 (SCI-Expanded)
- XXXI. **Optical, structural and electrical properties of ultrasonically sprayed copper oxide films: the effect of Mg incorporation**  
ATAY F., Bilgin V., AKYUZ I., KOSE S.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.9, no.11, pp.3604-3608, 2007 (SCI-Expanded)
- XXXII. **Some physical properties of ultrasonically sprayed tin oxide films: the effect of the substrate temperature**  
ATAY F., DEMİR M. K., KOSE S., Bilgin V., AKYUZ I.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.9, no.7, pp.2217-2226, 2007 (SCI-Expanded)
- XXXIII. **Some physical properties of chemically sprayed Zn<sub>1-x</sub>Cd<sub>x</sub>S semiconductor films**  
AKYUZ I., KOSE S., ATAY F., Bilgin V.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.10, pp.103-111, 2007 (SCI-Expanded)
- XXXIV. **The optical, structural and morphological properties of ultrasonically sprayed ZnO : Mn films**  
AKYUZ I., KOSE S., ATAY F., Bilgin V.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.21, no.12, pp.1620-1626, 2006 (SCI-Expanded)
- XXXV. **Characterization of Mn-incorporated CdO films grown by ultrasonic spray pyrolysis**  
Bilgin V., Akyuz I., Kose S., Atay F.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.21, no.5, pp.579-585, 2006 (SCI-Expanded)
- XXXVI. **The effect of substrate temperature on the structural and some physical properties of ultrasonically sprayed US films**  
Bilgin V., Kose S., Atay F., Akyuz I.  
MATERIALS CHEMISTRY AND PHYSICS, vol.94, no.1, pp.103-108, 2005 (SCI-Expanded)
- XXXVII. **The effect of Sn concentration on some physical properties of zinc oxide films prepared by ultrasonic spray pyrolysis**  
Bilgin V., Kose S., Atay F., Akyuz I.  
JOURNAL OF MATERIALS SCIENCE, vol.40, no.8, pp.1909-1915, 2005 (SCI-Expanded)
- XXXVIII. **Wide-bandgap modification of polycrystalline ZnO using Sn component on the basis of developing quantum-well hetero-structure**  
Yildirim T., Gur E., Tuzemen S., Bilgin V., Kose S., Atay F., Akyuz I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.27, pp.290-295, 2005 (SCI-Expanded)

- XXXIX. **The effect of Zn concentration on some physical properties of tin oxide films obtained by ultrasonic spray pyrolysis**  
Bilgin V., Kose S., Atay F., Akyuz I.  
MATERIALS LETTERS, vol.58, no.29, pp.3686-3693, 2004 (SCI-Expanded)
- XL. **Some physical properties of CdO thin films used as window material in photovoltaic solar cells**  
KOSE S., ATAY F., Bilgin V., AKYUZ D.  
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.1, no.3, pp.353-364, 2004 (SCI-Expanded)
- XLI. **The effect of In doping on some physical properties of CdS films**  
Atay F., Bilgin V., Akyuz I., Kose S.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.6, no.4, pp.197-203, 2003 (SCI-Expanded)
- XLII. **CdS : Ni films obtained by ultrasonic spray pyrolysis: effect of the Ni concentration**  
Atay F., Kose S., Bilgin V., Akyuz I.  
MATERIALS LETTERS, vol.57, pp.3461-3472, 2003 (SCI-Expanded)
- XLIII. **Electrical, Optical, Structural and Morphological Properties of NiS Films**  
ATAY F., KOSE S., BİLGİN V., AKYUZ I.  
Turkish Journal of Physics, vol.27, pp.285-291, 2003 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Enhancing Physical Properties: Chromium-Doped Zinc Oxide Thin Films Deposited by Ultrasonic Spray Pyrolysis**  
Gunes İ., Sarica E., Bilgin V.  
Journal of Balkan Science and Technology, no.2(2), pp.62-70, 2023 (Peer-Reviewed Journal)
- II. **Preparation and Characterization of Nickel-Doped Zinc Sulphide Thin Films for Solar Cell Applications**  
Küçükarslan A., Demirselçuk B., Kuş E., Akyüz İ., Bilgin V.  
Preparation and Characterization of Nickel-Doped Zinc Sulphide Thin Films for Solar Cell Applications, vol.7, no.4, pp.20-29, 2021 (Conference Book)
- III. **Influence of Sn Doping on CdS Thin Film Grown by Ultrasonic Spray Pyrolysis**  
EYGİ Z. D., Demirselçuk B., BİLGİN V.  
International Journal of Thin Films Science and Technology, vol.5, pp.103-106, 2016 (Peer-Reviewed Journal)
- IV. **Influence of Sn Doping on Cds Thin Film Grown by Ultrasonic Spray Pyrolysis**  
EYGİ Z., DEMİRSELÇUK B., BİLGİN V.  
International Journal of Thin Films Science and Technology, vol.5, pp.103-106, 2016 (Peer-Reviewed Journal)
- V. **Electrical and Optical Properties of Ultrasonically Sprayed Lithium Doped Tin Oxide Films**  
KETENCI E., KOSE S., ATAY F., BİLGİN V., AKYUZ I.  
Balkan Physics Letters, vol.1, pp.6-10, 2008 (Peer-Reviewed Journal)
- VI. **Optical and Surface Properties of Ultrasonically Sprayed CdS:F Films**  
AKYUZ I., KETENCI E., KOSE S., ATAY F., BİLGİN V.  
Balkan Physics Letters, vol.1, pp.1-5, 2008 (Peer-Reviewed Journal)
- VII. **The Investigation of Structural and Surface Properties of SnO<sub>2</sub>:Li Films Produced by Ultrasonic Spray Pyrolysis Technique**  
KOSE S., ATAY F., BİLGİN V., AKYUZ I., KETENCI E.  
SÜLEYMAN DEMİREL ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, vol.12, no.2, pp.85-90, 2008 (Peer-Reviewed Journal)
- VIII. **Some Physical Properties of CdS:Sn Films by Ultrasonic Spray Pyrolysis Technique**  
KOSE S., ATAY F., BİLGİN V., AKYUZ I.  
Anadolu University Journal of Science and Technology, vol.5, no.2, pp.237-243, 2004 (Peer-Reviewed Journal)
- IX. **Current transport mechanisms in undoped and Ni-doped CdS thin films**  
ATAY F., KOSE S., BİLGİN V., AKYUZ I.

Balkan Physics Letters, vol.10, no.2, pp.70-78, 2002 (Peer-Reviewed Journal)

**X. The Investigation of The Activation Energies of CdS Films**

KOSE S., ATAY F., BİLGİN V., AKYUZ I.

Fırat Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.13, no.1, pp.59-63, 2001 (Peer-Reviewed Journal)

**XI. The Investigation of Electrical and Optical Properties of ZnO and ZnO:Sn Films Obtained by Ultrasonic Spray Pyrolysis**

AKYUZ I., ATAY F., BİLGİN V., KOSE S.

Balkan Physics Letters, vol.1, pp.1-5, 2001 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Unleashing the Photovoltaic Potential: Optimizing Zn-Doped Co<sub>3</sub>O<sub>4</sub> Films via Ultrasonic Spray Pyrolysis**

GÜNEŞ İ., SARICA E., AKYÜZ İ., KÜÇÜKARSLAN A., BİLGİN V.

6th International Organic Electronic Material Technology Conference (OEMT-2024), Çanakkale, Turkey, 22 - 25 May 2024

**II. The Effect of Sulfurization Temperature on As-prepared SnS Films Deposited by Ultrasonic Spray Pyrolysis**

GÜNEŞ İ., DEMİRSELÇUK B., SARICA E., AKYÜZ İ., KÜÇÜKARSLAN A., BİLGİN V.

6th International Organic Electronic Material Technology Conference (OEMT-2024), Çanakkale, Turkey, 22 - 25 May 2024

**III. STRUCTURAL AND OPTICAL PROPERTIES OF TUNGSTEN OXIDE THIN FILMS: EFFECT OF ANNEALING TIME**

KÜÇÜKARSLAN A., GÜNEŞ İ., SARICA E., AKYÜZ İ., BİLGİN V.

6nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'21), Nevşehir/Kapadokya, Turkey, 26 - 28 November 2021

**IV. CHEMICALLY SPRAYED SnO<sub>2</sub>:F (FTO) THIN FILMS FOR PHOTOVOLTAIC APPLICATIONS**

KÜÇÜKARSLAN A., SARICA E., GÜNEŞ İ., AKYÜZ İ., ÖZDER S., BİLGİN V.

6nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'21), Nevşehir/Kapadokya, Turkey, 26 - 28 November 2021

**V. Structural And Optical Properties Of Iron-Cobalt Co-Doped Cadmium Oxide Thin Films**

SARICA E., GÜNEŞ İ., DEMİRSELÇUK B., KUŞ E., KÜÇÜKARSLAN A., BİLGİN V.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

**VI. Ultrasonically sprayed Ag doped SnS films: Optical, structural and morphological properties**

KÜÇÜKARSLAN A., GÜNEŞ İ., SARICA E., AKYÜZ İ., BİLGİN V., ALDATMAZ T.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

**VII. Ultrasonically spray deposited tin-doped indium oxide thin films for photovoltaic solar cell application**

GÜNEŞ İ., SARICA E., AKYÜZ İ., KÜÇÜKARSLAN A., ÖZDER S., BİLGİN V.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

**VIII. Effect of iron doping on structural and electrical properties of spray-deposited CdO thin films**

KUŞ E., SARICA E., GÜNEŞ İ., DEMİRSELÇUK B., KÜÇÜKARSLAN A., BİLGİN V.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

**IX. Ultrasonic spray pyrolysed tin sulfide films: effect of spraying solution flow rate**

SARICA E., GÜNEŞ İ., KÜÇÜKARSLAN A., BİLGİN V.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

**X. Structural, Optical and Electrical Properties of CZTS Layers by Ultrasonic Spray Pyrolysis For Photovoltaic Applications**

GÜNEŞ İ., BİLGİN V., SARICA E.

Turkish Physical Society 36th International Physical Congress (TPS-36), İstanbul, Turkey, 1 - 05 September 2020

- XI. **SnS Thin Films Deposited By Ultrasonic Spray Pyrolysis: Structural, Optical And Electrical Analyzes**  
SARICA E., GÜNEŞ İ., KÜÇÜKARSLAN A., BİLGİN V.  
Turkish Physical Society 36th International Physical Congress (TPS-36), İstanbul, Turkey, 1 - 05 September 2020
- XII. **Effect of Substrate Temperature on the Physical Properties of NiO Thin Films**  
SARICA E., GÜNEŞ İ., KÜÇÜKARSLAN A., BİLGİN V.  
Turkish Physical Society 35th International Physical Congress (TPS-35), 4 - 08 September 2019
- XIII. **Surface, Optical and Electrical Properties of Sn<sub>1</sub>-XPb<sub>x</sub>S Thin Films**  
GÜNEŞ İ., SARICA E., KÜÇÜKARSLAN A., BİLGİN V.  
Turkish Physical Society 35th International Physical Congress (TPS-35), 4 - 08 September 2019
- XIV. **Cr Doped ZnO Thin Films Deposited By Ultrasonic Spray Pyrolysis: Photoluminescence Properties**  
GÜNEŞ İ., SARICA E., BİLGİN V.  
Turkish Physical Society 35th International Physical Congress (TPS-35), 4 - 08 September 2019
- XV. **Sol-Gel Deposited Sn Doped ZnO Thin Films: Morphological And Optical Properties**  
SARICA E., GÜNEŞ İ., AKYÜZ İ., BİLGİN V.  
Turkish Physical Society 35th International Physical Congress (TPS-35), 4 - 08 September 2019
- XVI. **Investigation Of Structural, Optical And Electrical Properties Of Undoped And Cr Doped ZnO Thin Films**  
GÜNEŞ İ., SARICA E., BİLGİN V.  
Turkish Physical Society 34th International Physical Congress, Muğla, Turkey, 5 - 09 September 2018
- XVII. **Effect of Zn/S molar ratio on the physical properties of spray-pyrolysed ZnS thin films for photovoltaic applications**  
DEMİRSELÇUK B., BİLGİN V., ÖZDER S., SARICA E.  
Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017
- XVIII. **Substrate temperature effect on the structural, morphological, optical and electrical properties of spray-deposited zinc sulphide thin films**  
DEMİRSELÇUK B., BİLGİN V., SARICA E., ÖZDER S.  
Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017
- XIX. **Fotovoltaik Uygulamalar için CdTe:Cu İnce Filmlerinin Fiziksel Özelliklerinin İncelenmesi**  
DEMİRSELÇUK B., BİLGİN V., ERTÜRK K.  
V. Ulusal Güneş ve Hidrojen Enerjisi Kongresi, Turkey, 12 - 13 May 2016
- XX. **Optical, Structural and Surface Characterization of Li Doped CdTe Thin Films**  
DEMİRSELÇUK B., BİLGİN V.  
Third European Conference on Renewable Energy Systems, 7 - 10 October 2015
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