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PERSONAL

Date of Birth	12.08.1986
Place of Birth	Ankara

EDUCATION

2011-2018	Middle East Technical University, Physics, Ph.D. (Post B.S)
2004-2009	Gazi University, Physics Education, B.S.

ACADEMIC POSITIONS

11/2019	Assistant Professor, Department of Electrical and Electronics Engineering, Atılım University, Turkey
01/2010-04/2018	Research Assistant, Department of Physics Middle East Technical University, Turkey

HONORS&AWARDS

1	Success Scholarship from Gazi University Foundation (2007)
2	First rank in the Department of Secondary Science and Mathematics Education at Gazi University (2009)

RESEARCH INTERESTS

1	Thin Film deposition and characterization
2	Semiconductor device fabrication
3	Solar Cells
4	2D Materials
5	Computational Material Science

PROFESSIONAL SERVICE

1	Reviewer, Journal of Alloys and Compounds
2	Reviewer, Journal of Materials Science: Materials in Electronics
3	Reviewer, Semiconductor Science and Technology
4	Reviewer, Materials Research Express

PUBLICATIONS

1	G Surucu, A Gencer, X Wang, O Surucu, Lattice dynamical and thermo-elastic properties of M ₂ AlB (M= V, Nb, Ta) MAX phase borides, Journal of Alloys and Compounds, 819, 153256, 2020
2	HH Gullu, O Surucu, M Terlemezoglu, M Isik, C Ercelebi, NM Gasanly, M Parlak, Temperature-dependent material characterization of CuZnSe ₂ thin films, Thin Solid Films, 701, 137941, 2020
3	S Delice, M Isik, HH Gullu, M Terlemezoglu, O Bayrakli Surucu, NM Gasanly, M Parlak, Temperature dependent band gap in SnS _{2x} Se _{(2-2x)(x= 0.5)} thin films, Materials Science in Semiconductor Processing, 114, 105083, 2020
4	Ö Bayraklı Sürücü, Characterization of GZO thin films fabricated by RF magnetron sputtering method and electrical properties of In/GZO/Si/Al diode, Journal of Materials Science: Materials in Electronics, 30-21, 19270-19278, 2019
5	Ö Bayraklı Sürücü, HH Güllü, M Terlemezoglu, DE Yıldız, M Parlak, Determination of current transport characteristics in Au-Cu/CuO/n-Si Schottky diodes, Physica B: Condensed Matter, 570, 246-253, 2019
6	HH Gullu, Ö Bayraklı Sürücü, M Terlemezoglu, DE Yıldız, M. Parlak, Investigation of electrical characteristics of Ag/ZnO/Si sandwich structure, Journal of Materials Science: Materials in Electronics, 30-16, 2019
7	S. Delice, M. Isik, H.H. Gullu, M. Terlemezoglu, O.B. Surucu, M. Parlak, N.M. Gasanly, Temperature dependence of band gaps in sputtered SnSe thin films, 131, 22-26, 2019
8	M Terlemezoglu, Ö Bayraklı Sürücü, C Dogru, HH Güllü, EH Ciftpinar, Ç Ercelebi, M. Parlak, CZTSSe thin films fabricated by single step deposition for superstrate solar cell applications, Journal of Materials Science: Materials in Electronics, 30-12, 19814-9821, 2019
9	HH Gullu, Ö Bayraklı Sürücü, M Terlemezoglu, DE Yıldız, M. Parlak, Frequency effect on electrical and dielectric characteristics of In/Cu ₂ ZnSnTe ₄ /Si/Ag diode structure, Journal of Materials Science: Materials in Electronics, 30-10, 9814-9821, 2019
10	Ö. Bayrakli Surucu, H.H. Gullu, Deposition and Characterization of ZnSnSe ₂ Thin-Films Deposited by Using Sintered Stoichiometric Powder, Journal of Polytechnic, 22, 649 – 653, 2019
11	HH Gullu, DE Yıldız, ÖB Sürücü, M Terlemezoglu, M Parlak, Temperature dependence of electrical properties in In/Cu ₂ ZnSnTe ₄ /Si/Ag diodes, Bulletin of Materials Science, 42-2, 45, 2019
12	M Terlemezoglu, Ö Bayraklı Sürücü, T Çolakoğlu, MK Abak, HH Güllü, Ç Ercelebi, M. Parlak, Construction of self-assembled vertical nanoflakes on CZTSSe thin films, Materials Research Express, 6-2, 026421, 2018
13	Ö Bayrakli, HH Güllü, M. Parlak, INVESTIGATION ON DEVICE CHARACTERISTICS OF n-CdS/p-Ag(Ga-In)Te ₂ HETEROJUNCTION DIODE, Surface Review and Letters, 25, 1850107, 2018
14	F Yigiterol, H.H. Güllü, Ö Bayraklı, Dilber Esra Yıldız, Temperature-Dependent Electrical Characteristics of Au/Si ₃ N ₄ /4H n-SiC MIS Diode, Journal of Electronic Materials, 47, 2979-2987, 2018
15	M Terlemezoglu, Ö Bayraklı, Hasan Hüseyin Güllü, T Çolakoğlu, DE Yıldız, M. Parlak, Analysis of current conduction mechanism in CZTSSe/n-Si structure, Journal of Materials Science: Materials in Electronics, 29, 5264-5274, 2018, 2018
16	Ö. Sürücü, Deposition and Structural Characterization of Sn-Se-Te Thin Films, European Journal of Science and Technology, 14, 343 – 347, 2018
17	H.H. Güllü, M. Terlemezoglu, Ö Bayraklı, D.E. Yıldız, M. Parlak, Investigation of carrier transport mechanisms in the Cu–Zn–Se based hetero-structure grown by sputtering technique, Canadian Journal of Physics, 96, 816-825, 2018
18	Ö Bayraklı, M Terlemezoglu, HH Güllü, M. Parlak, Investigation of precursor sequence and post-annealing effects on the properties of Cu ₂ SnZnSe ₄ thin films deposited by the elemental thermal evaporation, 4, 086411, 2017
19	HH Güllü, Ö Bayraklı, M. Parlak, Optical and electrical characteristics of thermally evaporated Cu _{0.5} Ag _{0.5} InSe ₂ thin films, Thin Solid Films, 639, 29-35, 2017

20	H.H. Güllü, Ö Bayraklı, DE Yıldız, M. Parlak, Study on the electrical properties of ZnSe/Si heterojunction diode, Journal of Materials Science: Materials in Electronics, 28, 17806-17815, 2017
21	Ö Bayraklı, M Terlemezoğlu, HH Güllü, M. Parlak, Deposition of CZTSe thin films and illumination effects on the device properties of Ag/n-Si/p-CZTSe/In heterostructure, Journal of Alloys and Compounds, 709, 337-343, 2017
22	G.Sürücü, H.H. Güllü, Ö. Bayraklı, M. Parlak, Enhancement in Photovoltaic Characteristics of CdS/CdTe Heterojunction, Journal of Polytechnic, 20, 801-805, 2017
23	B. Kilic, S. Turkdogan, O.C. Ozer, M. Asgin, O. Bayraklı, G. Surucu, A. Astam, D. Ekinci, Produce of graphene/iron pyrite (FeS ₂) thin films counter electrode for dye-sensitized solar cell, Materials Letters, 185, 584-587,2016
24	E. Coşkun, HH Güllü, İ. Candan, Ö Bayraklı, M. Parlak, C Ercelebi, Device behavior of an In/p-Ag(Ga,In)Te ₂ /n-Si/Ag heterojunction diode, Materials Science in Semiconductor Processing,34, 138-145, 2015
25	HH Güllü, Ö Bayraklı, İ. Candan, E. Coşkun, M. Parlak, Structural and optical properties of Zn-In-Te thin films deposited by thermal evaporation technique, Journal of Alloys and Compounds, 566, 83-89,2013

PROJECTS

1	TÜBİTAK (TEYDEB-Bireysel Girişimcilik-Project No:2170087), Project Coordinator, “Gümüş Nano Yapılar İle Esnek Saydam İletken Film Üretimi” (01.10.2017-01.10.2018)
2	TÜBİTAK (ARDEB-3001 Project No: 118F317), Researcher, “Katmanlı Yapıda Termal Buharlaştırma Tekniği İle Üretilen Cdsexte1-X (Cst) Yarı-İletken İnce Filmlerinin Malzeme Karakterizasyonu” (15.12.2018-...)
3	Middle East Technical University (METU) BAP Project No: BAP-01-05-2018), Researcher “Alternatif soğurucu katman olarak SnSe _x Te _(1-x) ince film yapısının üretimi ve özelliklerinin araştırılması” (01.01.2018-31.12.2018)
4	Middle East Tehcnical University BAP (Project No: BAP-01-05-2017-002), Researcher “Cu ₂ ZnSn(S,Se) ₄ ince filmlerinin fiziksel buharlaştırma tekniği ile üretilmesi ve özelliklerinin belirlenmesi” (01.01.2017-31.12.2017)
5	Middle East Technical University BAP Project No: BAP-01-05-2016-004, Researcher “Cu ₂ ZnSnSe ₄ ince filmlerinin fiziksel buharlaştırma tekniği ile üretilmesi ve özelliklerinin belirlenmesi” (01.01.2016-31.12.2016)
6	Middle East Technical University BAP Project No: BAP-01-05-2015-001, Researcher, “ZnSnS ₂ ince filmlerinin ısısal buharlaştırma tekniği ile üretilmesi ve özelliklerinin belirlenmesi (01.01.2015-31.12.2015)
7	Middle East Technical University BAP Project No: BAP-01-05-2014-006, Researcher “CuSn(S,Se yada Te) ₂ ve CuZn(S,Se) ₂ ince filmlerinin ısı buharlaştırma ve saçtırmalı kaplama tekniğiyle üretilmesi ve özelliklerinin belirlenmesi” (01.01.2014-31.12.2014)
8	Middle East Technical University BAP Project No: BAP-01-05-2013-005, Researcher “CuZnSnTe ₂ ince filmlerinin manyetik saçtırmalı kaplama tekniğiyle üretilmesi ve özelliklerinin belirlenmesi” (01.01.2013-31.12.2013)
9	Middle East Technical University BAP Project No: BAP-01-05-2012-004, Researcher “Zn _x In _{1-x} Te ₂ ince filmlerin üretimi ve aygıt özelliklerinin belirlenmesi” (01.01.2012-31.12.2012)

CONFERENCE PRESENTATIONS (ORAL PRESENTATIONS)

1	Ö. SÜRÜCÜ, "Thin film heterojunction solar cell based on CuSbSe ₂ absorber layer" 3rd International Symposium on Multidisciplinary Studies and Innovative Technologies- Ankara / Turkey (October, 2019)
2	Ö. SÜRÜCÜ , "Prediction of the best solar cell efficiency for Kesterite Solar Cell" 6th International conference on materials science and nanotechnology for next generation (MSNG2019) Niğde, TURKEY (October, 2019)
3	Ö. BAYRAKLI SÜRÜCÜ, M. TERLEMEZOĞLU, H.H. GÜLLÜ, D. E. YILDIZ, M. PARLAK, "Fabrication and Electrical Characterization of p-AgGa _{0.5} In _{0.5} Te ₂ Thin Film with Cd- Free Front Layer" TFD 34. Uluslararası Fizik Kongresi Bodrum/Turkey (September 2018)
4	Ö. BAYRAKLI SÜRÜCÜ; H. H. GÜLLÜ, İ. CANDAN, E. COŞKUN and M. PARLAK "Characterization of Ag-Ga-In-Te Thin Film Solar Cell", SATF 2014 Çeşme/Turkey (September 2014)
5	G. Surucu , Ö. Bayraklı , H. H. Gullu ,M. Terlemezoglu and M. PARLAK, "DEVICE BEHAVIOR OF CZTSE/SI NANOWIRE HETEROJUNCTION", PVTC 2017 Marseille/France (April 2017)
6	Ö. BAYRAKLI, H. H. GÜLLÜ, and M. PARLAK , "Device Measurement and analysis of Ag- Ga-In-Te based thin film heterojunction", Solar TR-3 Ankara/Turkey (April-2015)
7	O. Bayrakli, H. H. Gullu, M. Parlak, "AgGa _x In _(1-x) Te ₂ ince filmlerin üretilmesi ve aygıt özelliklerinin belirlenmesi", 21. Yoğun Madde Fiziği Ankara Toplantısı (YMF-21), Turkey, 2015
8	H. H. Gullu, E. Coskun, O. Bayrakli, M. Parlak, Material and device characterization of Cu _{0.5} Ag _{0.5} InSe ₂ and ZnInSe ₂ thin films for photovoltaic applications, Materials Research Society (MRS) Spring Meeting, USA, 2015
9	O. Bayrakli, M. Terlemezoglu, H. H. Gullu, D. E. Yildiz, M. Parlak, Deposition of CZTSe thin films and investigation of their device properties, International Conference on Condensed Matter and Material Science (ICMMS-17), Turkey, 2017
10	M. Terlemezoglu, O. Bayrakli, H. H. Gullu, D. E. Yildiz, M. Parlak, The electrical properties of p-CZTSSe/n-Si heterostructure, International Conference on Condensed Matter and Material Science (ICMMS-17), Turkey, 2017

CITATIONS

Sum of times cited without self-citations (ISI Web of Science):	74
H-index (ISI Web of Science):	7

COURSES GIVEN

1	General Physics I-Mechanics (PHYS101)
2	General Physics II-Electricity and Magnetism (PHYS102)