

Dr. Ahmet TUMBUL

Öğrenim Durumu:

Derece	Bölüm/Program	Üniversite	Yıl
Lisans	Fizik	İnönü Üniversitesi (Malatya, Türkiye)	2006-2009
Y. Lisans	Fizik	Harran Üniversitesi (Şanlıurfa, Türkiye)	2009-2012
Doktora	Fizik	Harran Üniversitesi (Şanlıurfa, Türkiye)	2012-2018

Akademik Görevler:

Görev Ünvanı	Görev Yeri	Yıl
Arş. Gör. (50/d)	Harran Üni., Fen-Ed. Fak., Fizik Böl.	2010-2012
Öğr. Gör.	Harran Üni.Rektörlüğü	2014-2017
Öğr.Gör.Dr.	Harran Üni.Rektörlüğü	2018-

Sorumlu olduğu cihaz: X-Ray Difraktometresi (XRD)

Dahili No: 1669

Lisans düzeyinde yürüttüğü dersler:

Akademik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Teorik	Uygulama	
2010-2012	İlkbahar	Genel Fizik Lab I	0	3	10
		Elektronik Lab II	0	3	8

ESERLER LİSTESİ

A. Uluslararası hakemli dergilerde yayınlanan makaleler:

A.1 Ferhat ASLAN and **Ahmet Tumbul** “ *Non-vacuum processed Cu₂ZnSnS₄ thin films: Influence of copper precursor on structure, optical and morphological properties*” **Journal of Alloys and Compounds (SCI-Expanded)** , 2014, (DOI: 10.1016/j.jallcom.2014.05.140)

A.2 A. Göktaş, F. Aslan and **A. Tumbul** “*Nanostructured Cu-doped ZnS polycrystalline thin films produced by a wet chemical route: the influences of Cu doping and film thickness on the*

structural, optical and electrical properties". **Journal of Sol-Gel Sci Technol (SCI-Expanded), 2015.**

A.3 F. Aslan, A. Göktaş, **A. Tumbul** "Influence of pH on Structural, Optical and electrical properties of solution processed Cu_2ZnSnS_4 thin film absorbers" **Materials Science in Semiconductor Processing(SCI-Expanded), 2015.**

(<http://dx.doi.org/10.1016/j.mssp.2015.12.011>)

A.4 A. Göktaş, **A. Tumbul** and F. Aslan "Grain size-induced structural, magnetic and magnetoresistance properties of $Nd_{0.67}Ca_{0.33}MnO_3$ nanocrystalline thin films" **Journal of Sol-Gel Sci Technol(SCI-Expanded), 2016,** (DOI:10.1007/s10971-016-3960-0)

A.5 F. Aslan, **A.Tumbul**, A. Göktaş, R. Budakoğlu, İ.H. Mutlu, "Growth of ZnO nanorod arrays by one-step sol-gel process" **Journal of Sol-Gel Science and Technology(SCI-Expanded), 2016,** (DOI:10.1007/s10971-016-4131-z)

A.6 A. Göktaş, F. Aslan, **A. Tumbul**, S. H. Gündüz, " Tuning of structural, optical and dielectric constants by various transition metal doping in ZnO:TM (TM=Mn, Co, Fe) nanostructured thin films: A comparative study **Ceramics International(SCI-Expanded), 2017,** <https://doi.org/10.1016/j.ceramint.2016.09.217>

A.7 **A. Tumbul**, A. Göktaş, M.Z. Zarbali, F. Aslan "Structural, morphological and optical properties of the vacuum-free processed CZTS thin film absorber **Materials Research Express(SCI-Expanded), 2018.**

A.8 Y. Babur, **A. Tumbul**, M. Yıldırım " Chemically derived $Zn_{0.90-x}Mn_{0.05}Fe_{0.05}Al_xO$ thin films: Tuning of crystallite/grain size, optical and dielectric constants and ferromagnetic properties through Al substitutions **Materials Science in Semiconductor Processing(SCI-Expanded), 2018.**

A.9 **A. Tumbul**, F. Aslan, S. Demiröz, A. Göktaş, A. Kılıç, M. Durgun, M.Z. Zarbali "Solution processed boron doped ZnO thin films: Influence of different boron complexes" **Materials Research Express(SCI-Expanded), 2019.**

A.10 **A. Tumbul**, F. Aslan, A. Göktaş, İ.H. Mutlu, " All solution processed superstrate type Cu_2ZnSnS_4 (CZTS) thin film solar cell: Effect of absorber layer thickness" **Journal of Alloys and Compounds (SCI-Expanded), 2019.**

B. Ulusal ve Uluslararası Kongre ve Sempozyumlarda yayınlanan çalışmalar:

B.1 F. Aslan, A.Göktaş, **A.Tumbul**, R. Budakoğlu, İ.H.Mutlu "Effect of various zinc precursor on physical properties of Al-doped zinc-oxide thin films" *SolarTR-3 Solar Electricity Conference and Exhibition, April 27-29,2015, Ankara-Turkey*

B.2 A.Göktaş, F.Aslan, **A.Tumbul** "Structure and Optical properties of Magnetron Sputtered $Zn_{1-x}A_xO$ (A=Mn,Fe,Co) thin films" *2nd NANOSMAT-Asia International*

Conference on Surface, Coatings and Nanostructured Materials, 24-27 March 2015, Kayseri-TURKEY

B.3 F.Aslan, M.Z.Zarbali, **A.Tumbul**, İ.Boz, İ.H.Mutlu “Effect of *S/In* ratio on morphological, optical and structural properties of dip-coated *CuInS₂* thin films” *SolarTR-2 Solar Electricity Conference and Exhibition, November7-9, Antalya-Turkey*

B.4 A.Göktaş, F.Aslan, **A.Tumbul**, İ.Boz “Metal doped zinc-oxide(ZnO) thin films grown by magnetron sputtered on glass substrate, *SolarTR-2014 İzmir, Türkiye, 19-21 Kasım2014*.

B.5 F.Aslan, M.Z. Zarbali, **A.Tumbul**, İ.Boz, İ.H.Mutlu “Effect of annealing temperature on structural, optical and electrical properties of dip-coated ITO films” *29 th International Physics Conference , Semtember 05-08 , 2012 Bodrum-Turkey*

B.6 F.Aslan, M.Z. Zarbali, **A.Tumbul**, İ.H.Mutlu “Structural, optical and electrical characterization of dip-coated *ZnO:Al* thin films” *29 th International Physics Conference , Semtember 05-08 , 2012 Bodrum-Turkey*

B.7 A.Göktaş, **A.Tumbul**, F.Aslan “ pH-depended Structure and Optical Properties of ZnS nanocrystalline thin films” *NANOTR11: Nanoscience and Nanotechnology Conference , Middle East Technical University, 22-25 June 2015, Ankara-TURKEY*

B.8 I.H. Mutlu, **A. Tumbul**, F. Aslan, A. Göktaş, M. Zarbali “Role of different zinc precursors on physical properties of sol-gel deposited *Cu₂ZnSnS₄(CZTS)* thin film absorbers” Turkish Physical Society 32nd International Physics Congress, September 6-9, 2016, Bodrum-Turkey

B.9 **A. Tumbul**, I. Boz, F. Aslan, A. Göktaş, M. Zarbali, I.H. Mutlu, “Solution processed *Cu₂SnS₃* absorber layer:Structural and optical properties, Turkish Physical Society 32nd International Physics Congress, September 6-9, 2016, Bodrum-Turkey

B.10 A.Göktaş, F.Aslan, **A.Tumbul**, M. Zarbali, İ.Boz, “ Effect of Highly Mg dopant level on the structural and optical properties of ZnO thin films. III. International Turkish Congress on Molecular Spectroscopy, August 26-29, 2017, Bodrum-Turkey

B.11 A.Göktaş, **A.Tumbul**, F.Aslan, M. Zarbali, “ Size-Induced Structural, Optical and Electrical Properties of Mg-Doped ZnO Thin Films. Turkish Physical Society 33. International Physics Congress, Semtember 6-9, 2017, Bodrum-Turkey.

B.12 **A.Tumbul**, F.Aslan, A.Göktaş, M. Zarbali, F. Arslan, “ Effect of Sn/S ratio on Optical and Structural Properties of Solution Processed SnS Thin Films. Turkish Physical Society 33. International Physics Congress, Semtember 6-9, 2017, Bodrum-Turkey.

B.13 A.Göktaş, **A.Tumbul**, F.Aslan, M. Zarbali, “ Cu and Mn Co-Doped ZnS Thin FilmsProduced by Sol-Gel Dip Coating on Pyrex Glass, Turkish Physical Society 33. International Physics Congress, Semtember 6-9, 2017, Bodrum-Turkey.

B.14 A.Göktaş, İ.H. Mutlu, **A.Tumbul**, F.Aslan, “ Annealing Environment-Induced Structural, Optical and Magnetic Characterisation Of Highly Oriented Co and Cu Doped ZnO

Nanocrystalline Thin Films, Turkish Physical Society 33. International Physics Congress, September 6-9, 2017, Bodrum-Turkey.

B.15 A.Tumbul, F.Aslan, A.Göktaş, M. Zarbali, İ.H. Mutlu, “ Physical properties of Sol-Gel Processed Cu_2ZnSnS_4 Thin Film Absorber: Influence of Annealing Temperature, Turkish Physical Society 33. International Physics Congress, September 6-9, 2017, Bodrum-Turkey.

B.16 İ.H. Mutlu , A.Göktaş, **A.Tumbul**, F.Aslan, “ A study on Mg-Doped ZnO Nanostructured Thin Films: Structural, Optical and An Application of Al/mg-Doped ZnO/p-Si Heterojunction Diode, Turkish Physical Society 33. International Physics Congress, September 6-9, 2017, Bodrum-Turkey.

B.17 A.Tumbul, A.Göktaş, F. Arslan M. Durgun, F.Aslan “ *CZTS/CdS Diode for the Substrate Type Solar Cell Application*”, International GAP Renewable Energy and Energy Efficiency Congress, May 10-12, 2018, Şanlıurfa-Türkiye

B.18 H. Öztürk, **A. Tumbul**, F. Aslan, A. Göktaş, M. Zarbali, “ *Investigation of Optical and Electrical Properties of ITO Thin Films Produced by Magnetron Sputter Technique*”, International GAP Renewable Energy and Energy Efficiency Congress, May 10-12, 2018, Şanlıurfa-Türkiye

B.19 A.Tumbul, A.Göktaş, F. Arslan, M. Zarbali, H. Öztürk, “ *Vacuum-free Processed Cu_2ZnSnS_4 Solar Cell*”. International GAP Renewable Energy and Energy Efficiency Congress, May 10-12, 2018, Şanlıurfa-Türkiye

B.20 A.Göktaş, **A.Tumbul**, Z. Aba, F.Aslan, “ *Improving Certain Physical Properties of $Zn_{1-x}Mn_xO$ Thin Films Depended on Production Route for Solar Cell Applications: Sol-gel and Magnetron Sputtering*”. International GAP Renewable Energy and Energy Efficiency Congress, May 10-12, 2018, Şanlıurfa-Türkiye

B.21 A.Göktaş, **A.Tumbul**, S. Modanlı, F.Aslan, M. Zarbali, “ *Role of the Film Growth Techniques in $Zn_{1-x}Fe_xO$ Nanograined Thin Films for Optoelectronic and Solar Applications*” International GAP Renewable Energy and Energy Efficiency Congress, May 10-12, 2018, Şanlıurfa-Türkiye