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EĞİTİM BİLGİLERİ:

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ÜNVAN:

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ONUR VE ÖDÜLLER:

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YAYINLANMIŞ KİTAPLAR ve KİTAPLARDA BÖLÜMLER:

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PATENTLER:

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YAYINLANMIŞ MAKALELER (SCI indeks):

1. G. Yildirim, S. Bal, **M. Gulen**, A. Varilci, E. Budak, M. Akdogan, (2012), "Substrate effect on microstructure and optical performance of sputter-deposited TiO₂ thin films". Crystal Research and Technology, 47, 195-201.
2. **M. Gulen**, G. Yildirim, S. Bal, A. Varilci, I. Belenli, M. Oz, (2012), "Role of annealing temperature on microstructural and electro-optical properties of ITO films produced by sputtering". Journal of Materials Science: Materials in Electronics, 24, 467-474.
3. Muharrem Gokcen, Sevgi Bal, Gurcan Yildirim, **Mahir Gulen**, Ahmet Varilci, (2013) "Morphological, microstructural and electrical examinations on ZnO film on p-Si wafer". Journal of Materials Science: Materials in Electronics, 23(11), 1971-1979.
4. Seçkin Akın, **Mahir Gülen**, Serkan Sayın, Hacer Azak, Hüseyin Bekir Yıldız, Savaş Sönmezoğlu, (2016), "Modification of photoelectrode with thiol-functionalized Calix[4]arenes as interface energy barrier for high efficiency in dye-sensitized solar cells". Journal of Power Sources, 307, 796-805.
5. Recep Taş, **Mahir Gülen**, Muzaffer Can, Savaş Sönmezoğlu, (2016), "Effects of solvent and copper-doping on polyaniline conducting polymer and its application as a counter electrode for efficient and cost-effective dye-sensitized solar cells". Synthetic Metals, 212, 75-83.
6. S. Akın, S. Açıkgöz, **M. Gülen**, C. Akyürek and S. Sönmezoğlu, (2016), "Investigation of the

- photoinduced electron injection processes for natural dye-sensitized solar cells: the impact of anchoring groups". RSC Advances, 6, 85125-85135.
7. M. Soylu, **M. Gülen** and S. Sönmezoğlu, (2016), "Temperature-dependent model for hole transport mechanism in a poly(1.8 diaminocarbazole)/Si structure". Philosophical Magazine, 96, 2600-2614.
 8. T. Öztürk, B. Gülveren, **M. Gülen**, E. Akman, S. Sönmezoğlu, (2017), "An insight into titania nanopowders modifying with manganese ions: A promising route for highly efficient and stable photoelectrochemical solar cells". Solar Energy, 157, 47-57.
 9. Buket Bezgin Carbas, **Mahir Gülen**, Merve Celik Tolu, Savas Sonmezoglu, (2017), "Hydrogen sulphate-based ionic liquid-assisted electropolymerization of PEDOT catalyst material for high-efficiency photoelectrochemical solar cells". Scinetfic Reports, 7, 11672-11683.
 10. **Mahir Gülen**, Adem Sarilmaz, Imren Hatay Patir, Faruk Ozel, Savas Sonmezoglu, (2018), "Ternary copper-tungsten-disulfide nanocube inks as catalyst for highly efficient dye-sensitized solar cells". Electrochimica Acta, 269, 119-127.

YAYINLANMIŞ ULUSAL MAKALELER:

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YAYINLANMIŞ KONFERANS MAKALELERİ:

1. Savas Sonmezoglu, **Mahir Gülen**, Erdi Akman, Seckin Akin, Aytac Gultekin, Husnu Emrah Unalan, Rasit Turan, (2014), "Influence of Al concentrations on the physical properties of transparent conducting Al-doped ZnO thin films". Science and Applications of Thin Films, Conference & Exhibition (SATF 2014), İzmir, Turkey.
2. Savas Sonmezoglu, Seckin Akin, **Mahir Gülen**, Erdi Akman, Aytac Gultekin, Husnu Emrah Unalan, Rasit Turan, (2014), "The effect of annealing temperature on the structural and morphological properties of CuInGaSeTe nanostructures grown by the sol-gel process". International Nanoscience and Nanotechnology for Next Generation Conference 2014 (NaNONG 2014), Elazığ, Turkey.
3. Savas Sonmezoglu, **Mahir Gülen**, Erdi Akman, Seckin Akin, Aytac Gultekin, Husnu Emrah Unalan, Rasit Turan, (2014), "Effect of annealing temperature on the physical properties of CdS thin films prepared by chemical bath deposition". International Nanoscience and Nanotechnology for Next Generation Conference 2014 (NaNONG 2014), Turkey.
4. **Mahir Gülen**, Savas Sonmezoglu, (2014), "Dye-Sensitized Solar Cell Based on Riboflavin as a Photosensitizer". International Nanoscience and Nanotechnology for Next Generation (NaNONG 2014) Conference, Turkey.
5. **Mahir Gülen**, Seckin Akin, Yakup Ulusu, İsa Gokce, Savas Sonmezoglu, Jeremy H. Lakey, (2014), "Bio-sensitized solar cell based on green fluorescent protein as a sensitizer". International Workshop On Flexible Bio- and Organic Printed Electronics, Konya, Turkey.
6. Gamze Karanfil, **Mahir Gülen**, (2015), "Karamanoğlu Mehmetbey Üniversitesi Isı Merkezinin Kazan Bacalarından Atılan Atık Isının Geri Kazanımı". 13. International Combustion Symposium, 9-11 September, Bursa, Turkey.
7. **Mahir Gülen**, Erdi Akman, Recep Tas, Muzaffer Can, Faruk Ozel, Savaş Sonmezoğlu, (2015), "Utilizing of in situ prepared metal doped polyaniline counter electrodes in dye-sensitized solar cells", European Materials Research Society Spring meeting, Lille, FRANCE.
8. Erdi Akman, Adem Sarilmaz, **Mahir Gülen**, Bilal İstanbullu, Mahmut Kuş, Faruk Ozel, Savaş

- Sönmezoğlu, (2015), "Synthesis of $\text{Cu}_2\text{ZnSnS}_4$ and $\text{Cu}_2\text{NiSnS}_4$ nanorods by colloidal method and applications as counter electrodes in dye-sensitized solar cells". European Materials Research Society Spring meeting, Lille, FRANCE.
9. Berna Gulveren, Teoman Ozturk, **Mahir Gulen**, Seckin Akin, Savas Sonmezoglu, (2015), "The synthesis and characterization of cobalt doped thin films and their application on dye-sensitized solar cells as photoanodes". 2nd International Nanoscience and Nanotechnology for Next Generation (NaNONG 2015), Antalya, Turkey.
 10. Berna Gulveren, Teoman Ozturk, Seckin Akin, **Mahir Gulen**, Savas Sonmezoglu, (2015), "Improving the efficiency of dye-sensitized solar cells using manganese doped TiO_2 photoanodes" . 2nd International Nanoscience and Nanotechnology for Next Generation (NaNONG 2015), Antalya, Turkey.
 11. **Mahir Gülen**, Savaş Sönmezoğlu, (2015), "Enhanced performance of Si-based devices using conducting poly (1,8-diaminocarbazole) polymer". Organic Electronic Material Technologies (OEMT 2015), Conference, Elazığ, Turkey.
 12. Gamze Karanfil, Seckin Akin, **Mahir Gulen**, Savas Sonmezoglu, (2015), "Enhanced photovoltaic performance of nanocrystalline CdTe solar cell using different morphologies of ZnO nanostructures". The International Conference on Science, Ecology and Technology I, Vienna, Austria.
 13. Seckin Akin, Serkan Sayin, **Mahir Gulen**, Hacer Azak, Huseyin Bekir Yildiz, Savas Sonmezoglu, (2015), "Modification of titanium oxide electrode with thiol-functionalized calixarenes layer for high-performance of dye-sensitized solar cell". 3rd Turkish Solar Electricity Conference and Exhibition Solar-Tr, Ankara, Turkey.
 14. Recep Tas, Seckin Akin, **Mahir Gulen**, Erdi Akman, Muzaffer Can, Savas Sonmezoglu, (2015), "Synthesized in a different solvent medium of aluminium doped polyaniline conducting polymers and its application in dye-sensitized solar cells as counter electrode". 3rd Turkish Solar Electricity Conference and Exhibition Solar-Tr, Ankara, Turkey.
 15. Seckin Akin, Recep Tas, **Mahir Gulen**, Erdi Akman, Muzaffer Can, Faruk Ozel, Savas Sonmezoglu, (2015), "The effects of solvents on the photovoltaic performance of dye sensitized solar cells based on copper doped polyaniline as counter electrode", 3rd Turkish Solar Electricity Conference and Exhibition Solar-Tr, Ankara, Turkey.
 16. **Mahir Gülen**, Erdi Akman, Cafer Akyürek, Savaş Sönmezoğlu, (2015), "Novel naturel dyes as photosensitizer for dye sensitized solar cells". 3rd Turkish Solar Electricity Conference and Exhibition Solar-Tr, Ankara, Turkey.
 17. Burak Tekin, **Mahir Gulen**, Seçkin Akin, Erdi Akman, Buket Bezgin Carbas, Faruk Ozel, Savas Sonmezoglu, (2017), "Solution Processed Cu_2XSnS_4 (X=Zn, Mn, Ni, Fe, Co) photoelectrochemical solar cells via electrochemical process free-sulphurization", European Materials Research Society Fall meeting, Warsaw, POLAND.
 18. Seckin Akin, Erdinç Erol, **Mahir Gulen**, Erdi Akman, Buket Bezgin Carbas, Faruk Ozel, Savas Sonmezoglu, (2017), "Synthesis of CXTS (X= Mn^{2+} , Ni^{2+}) thin films by two step electrodeposition and their application in DSSC as counter electrode". European Materials Research Society Fall meeting, Warsaw, POLAND.
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 21. **Mahir Gulen**, Ahmet Avci, Savas Sonmezoglu, (2017), "Improving the Mechanical and

- Electrochemical Properties of PProDOT by Incorporation of Graphene and Its Dye Sensitized Solar Cell Applications". International Conference on Condensed Matter and Materials Science (ICMMS-2017), Adana, Turkey.
22. Burak Tekin, Yemliha Altıntaş, **Mahir Gülen**, Erdi Akman, Evren Mutlugün, Savaş Sönmezoğlu, (2018), "Effect of ionic liquids on Cu₂S counter electrode-based quantum dot-sensitized solar cells". International Conference on Photovoltaic Science and Technologies (PVCON-2018), Ankara, Turkey.
23. **Mahir Gülen**, Yemliha Altıntaş, Erdi Akman, Burak Tekin, Evren Mutlugün, Savaş Sönmezoğlu (2018). Improving Performance and Stability in Quantum Dot-Sensitized Solar Cell through Single Layer Graphene/CuS Nanocomposite Counter Electrode. International Conference on Photovoltaic Science and Technologies (PVCON-2018), Ankara, Turkey.

ARAŞTIRMA PROJELERİ:

1. Araştırmacı, CdTe/ZnO Heteroeklem Güneş Pili Üretimi ve Karakterizasyonu, (BAP – 20.000 TL), 2014-2015.
2. Araştırmacı, Tulyum (Tm³⁺) katkılı TiO₂ Filmlerin Büyütülmesi, Karakterizasyonu ve Boya Duyarlı Güneş Pili Uygulamalarının İncelenmesi (BAP – 27.000 TL), 2015-2017.
3. Bursiyer, The Growth, Characterization and Investigation of Solar Cell Applications of Cu_{(1-x)Ga_x}(Se_{1-y}Te_y) (CIGST) Semiconductor Thin Films by Sol-Gel Method (TÜBİTAK-COST – 300.000 TL), 2013-2015.
4. Bursiyer, Synthesis of New Generation CuMSnS₄ (M = Zn²⁺, Co₂, Fe²⁺, Mn²⁺, Ni²⁺) Thin Films by Electrochemical Deposition Method and Their Applications on Dye Synthesized Solar Cells as Counter Electrodes, (TÜBİTAK-COST – 292.000 TL), 2015-2017.