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Kişisel Bilgiler

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Makaleler (YOKSIS)

- 1 A new approach to growth of chemically depositable different ZnS nanostructures**
GÖKTAŞ ABDULLAH,TUMBUL AHMET,ASLAN FERHAT
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY,<http://link.springer.com/10.1007/s10971-019-04990-9>
- 2 All solution processed superstrate type Cu₂ZnSnS₄ (CZTS) thin film solar cell: Effect of absorber layer thickness**
MUTLU İBRAHİM HALİL, ASLAN FERHAT, GÖKTAŞ ABDULLAH
Elsevier BV,<http://dx.doi.org/10.1016/j.jallcom.2018.12.012>
- 3 Chemically derived quinary Cu₂Co_{1-x}NaxSnS₄ photon absorber material and its photocatalytic application**
TUMBUL AHMET, ASLAN Esra, GÖKTAŞ ABDULLAH, MUTLU İBRAHİM HALİL, ARSLAN FERİT, ASLAN FERHAT
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING,<https://link.springer.com/article/10.1007/s00339-024-07374-1>
- 4 Chemically derived Zn_{0.90}-xMn_{0.05}Fe_{0.05}Al_xO thin films: Tuning of crystallite/grain size, optical and dielectric constants and ferromagnetic properties through Al substitutions**
BABUR YUNUS,TUMBUL AHMET,Yıldırım Mehmet
Materials Science in Semiconductor Processing,<http://dx.doi.org/10.1016/j.mssp.2018.04.029>
- 5 Comparative microwave absorption of dual-layer coatings containing CoFe₂O₄, NiFe₂O₄, and manganese-based iron oxide Mn_{0.176}Fe_{1.824}O₃ nanoparticles**
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Physica Scripta,<https://doi.org/10.1088/1402-4896/adf601>
- 6 Enhancing crystalline/optical quality, and photoluminescence properties of the Na and Sn substituted ZnS thin films for optoelectronic and solar cell applications a comparative study**
GÖKTAŞ ABDULLAH,TUMBUL AHMET,Aba Zekiye,KILIÇ AHMET,ASLAN FERHAT
Optical Materials,<https://linkinghub.elsevier.com/retrieve/pii/S092534672030416X>

- 7 Facile synthesis and characterization of ZnO, ZnO:Co, and ZnO/ZnO:Co nano rod-like homojunction thin films: Role of crystallite/grain size and microstrain in photocatalytic performance**
GÖKTAŞ ABDULLAH, Modanlı Sait, TUMBUL AHMET, KILIÇ AHMET
Journal of Alloys and Compounds,<http://dx.doi.org/10.1016/j.jallcom.2021.162334>
- 8 Grain size induced structural magnetic and magnetoresistance properties of Nd_{0.67}Ca_{0.33}MnO₃ nanocrystalline thin films**
GÖKTAŞ ABDULLAH, TUMBUL AHMET, ASLAN FERHAT
Journal of Sol-Gel Science and Technology,<http://link.springer.com/10.1007/s10971-016-3960-0>
- 9 Growth of ZnO nanorod arrays by one step sol gel process**
ASLAN FERHAT, TUMBUL AHMET, GÖKTAŞ ABDULLAH, MUTLU İBRAHİM HALİL, budakoğlu refika
Journal of Sol-Gel Science and Technology,<http://link.springer.com/10.1007/s10971-016-4131-z>
- 10 Growth Technique–Induced Highly C-Axis-Oriented ZnO: Mn, ZnO: Fe and ZnO: Co Thin Films: A Comparison of Nanostructure, Surface Morphology, Optical Band Gap, and Room Temperature Ferromagnetism**
GÖKTAŞ Sultan, TUMBUL AHMET, GÖKTAŞ ABDULLAH
Journal of Superconductivity and Novel Magnetism,<http://dx.doi.org/10.1007/s10948-023-06630-4>
- 11 Highly stable ethanol-based Cu₂ZnSnS₄ (CZTS) low-cost thin film absorber: Effect of solution aging**
TUMBUL AHMET, ASLAN FERHAT, GÖKTAŞ ABDULLAH, ZARBALI MAHARRAM, KILIÇ AHMET
Materials Chemistry and Physics,<http://dx.doi.org/10.1016/j.matchemphys.2020.123997>
- 12 Improving grain size and surface roughness of chemically derived Cu₂CoSnS₄ (CCTS) solar absorber material by controlling of Cu/Co ratios**
TUMBUL AHMET
Ceramics International,<https://linkinghub.elsevier.com/retrieve/pii/S0272884219324599>
- 13 Improving the optical properties of CuCoMnOx spinel absorber using ZnO nanorod arrays for thermal collector and photocatalytic applications**
ASLAN Esra, Emir Ömer, ARSLAN FERİT, GÖKTAŞ ABDULLAH, TUMBUL AHMET, DURGUN MUSTAFA, KILIÇ AHMET, AKTACIR MEHMET AZMİ, ASLAN FERHAT
Ceramics International,<http://dx.doi.org/10.1016/j.ceramint.2023.12.233>
- 14 Influence of pH on structural optical and electrical properties of solution processed Cu₂ZnSnS₄ thin film absorbers**
ASLAN FERHAT, GÖKTAŞ ABDULLAH, TUMBUL AHMET
Materials Science in Semiconductor Processing,<http://linkinghub.elsevier.com/retrieve/pii/S1369800115302705>
- 15 Investigation of the dielectric properties of newly synthesized and well defined low molecular weight macrophotoinitiator polystyrene thin film**
BABUR YUNUS, TUMBUL AHMET, DEĞİRMENCİ MUSTAFA, MUTLU İBRAHİM HALİL, ÇELİK ERDAL
Energy Education Science and Technology Part A: Energy Science and Research,
- 16 Lead-free ferroelectric BaTiO₃ (BTO) thin films produced by the green process**
MUTLU İBRAHİM HALİL, ULUĞ BÜLENT, ÇÖLKESEN PINAR, TUMBUL AHMET
Kuwait Journal of Science,<http://dx.doi.org/10.1016/j.kjs.2023.06.001>

- 17 **Mg doping levels and annealing temperature induced structural, optical and electrical properties of highly c-axis oriented ZnO:Mg thin films and Al/ZnO:Mg/p-Si/Al heterojunction diode**
GÖKTAŞ ABDULLAH,TUMBUL AHMET,ABA ZEKİYE,DURGUN MUSTAFA
THIN SOLID FILMS,<https://linkinghub.elsevier.com/retrieve/pii/S0040609019302263>
- 18 **Monoetanolamin Miktarının ZnO İnce Filmlerin Kristallenmesi Üzerine Etkisi**
TUMBUL AHMET
Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen
Dergisi,<http://dergipark.org.tr/doi/10.29233/sdufeffd.513412>
- 19 **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**
GÖKTAŞ ABDULLAH,ASLAN FERHAT,TUMBUL AHMET
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY,<http://link.springer.com/10.1007/s10971-015-3674-8>
- 20 **Non vacuum processed Cu₂ZnSnS₄ thin films Influence of copper precursor on structural optical and morphological properties**
ASLAN FERHAT,TUMBUL AHMET
Journal of Alloys and Compounds,<http://linkinghub.elsevier.com/retrieve/pii/S092583881401247X>
- 21 **Solution processed boron doped ZnO thin films: influence of different boron complexes**
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Materials Research Express,
- 22 **Structural and magnetic properties of polycrystalline Zn_{1-x}MnxO films synthesized on glass and p-type Si substrates using Sol-gel technique**
MİKAİLZADE FAİK, Türkan H., ÖNAL Fatih, ZARBALI MAHARRAM, GÖKTAŞ ABDULLAH, TUMBUL AHMET
Applied Physics A,<http://dx.doi.org/10.1007/s00339-021-04519-4>
- 23 **Structural, morphological and optical properties of the vacuum-freeprocessed CZTS thin film absorbers**
TUMBUL AHMET,GÖKTAŞ ABDULLAH,ZARBALI MAHARRAM,ASLAN FERHAT
Materials Research Express,
- 24 **Structural, optical and magnetic characterization of nanorod-shaped polycrystalline Zn_{1-x}MnxO films synthesized using sol-gel technique**
MİKAİLZADE FAİK,TÜRKAN H,ÖNAL Fatih,Karataş Özgül,KAZAN SİNAN,ZARBALI MAHARRAM,GÖKTAŞ ABDULLAH,TUMBUL AHMET
Applied Physics A,
- 25 **Synergistic Co-Cu dual doping in ZnS thin Films: Unlocking high room-temperature ferromagnetism and UV-activated photocatalytic efficiency for multifunctional applications**
GÖKTAŞ ABDULLAH,YEŞİLÇİMEN Muhammed,KILIÇ AHMET,GÖKTAŞ Sultan,TUMBUL AHMET
Materials Chemistry and Physics,<https://doi.org/10.1016/j.matchemphys.2025.131399>
- 26 **Synthesis and characterization of solution processed p-SnS and n-SnS₂ thin films: Effect of starting chemicals**
ASLAN FERHAT, ARSLAN FERİT, TUMBUL AHMET, GÖKTAŞ ABDULLAH
Optical Materials,<http://dx.doi.org/10.1016/j.optmat.2022.112270>

- 27 **Teaching of the NOS in Physics and Chemistry Education: Odds and Evens**
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Harran Education Journal,<http://dx.doi.org/10.22596/2019.0401.65.85>
- 28 **Tuning of structural optical and dielectric constants by various transition metal doping in ZnO TM Mn Co Fe nanostructured thin films A comparative study**
GÖKTAŞ ABDULLAH, ASLAN FERHAT, TUMBUL AHMET, Gündüz seçil hüda
Ceramics International,<http://linkinghub.elsevier.com/retrieve/pii/S0272884216317485>

Bildiriler (YOKSIS)

- 1 **A study on Mg-doped ZnO Nanostructured thin films: Structural, optical and an aplication of Al/Mg-doped ZnO/p-Si heterojunction diode**
MUTLU İBRAHİM HALİL, GÖKTAŞ ABDULLAH, TUMBUL AHMET, ASLAN FERHAT
Turkish Physical Society 33nd International Physics Congress ,
- 2 **Al katkılı oranının Zn_{0.95}Mn_{0.05}O ince filmlerin yapısal ve optiksel özelliklerine etkisi**
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- 3 **Annealing Environment-Induced Structural, Optical and Magnetic Characterisation Of Highly Oriented Co and Cu Doped ZnO Nanocrystalline Thin Films**
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Turkish Physical Society 33. International Physics Congress ,
- 4 **Annealing environment-induced structural, optical and magnetic characterisations of highly oriented co and cu co-doped ZnO nanocrystalline thin films**
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Turkish Physical Society 33nd International Physics Congress ,
- 5 **Calculation of mass attenuation coefficients of Cu doped ZnS thin film for radiation shielding by the Monte Carlo method**
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5th International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology ,
- 6 **Cu and Mn co-doped ZnS thin films produced by sol-gel dip coating on pyrex glass**
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Turkish Physical Society 33nd International Physics Congress ,
- 7 **Cu and Mn Co-Doped ZnS Thin Films Produced by Sol-Gel Dip Coating on Pyrex Glass**
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- 8 **CZTS/CdS Diode for the Substrate Type Solar Cell Application**
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- 9 **Developing a science infographic based on multimodality principle: Representation of renewable energy process**
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1. Uluslararası Harran Multidisipliner Çalışmalar Kongresi ,
- 10 **Dielectric properties of $\text{MxBa}_{1-x}\text{TiO}_3$ (M:Co,Gd,mn,Sr,Zr) ($x=0$ and 0.5) thin films produced by sol-gel method**
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- 12 **Effect of Highly Mg dopant level on the structural and optical properties of ZnO thin films.**
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III. International Turkish Congress on Molecular Spectroscopy ,
- 13 **Effect of Sn/S ratio on Optical and Structural Properties of Solution Processed SnS Thin Films**
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- 14 **Effect of various zinc precursors on physical properties of Al-doped ZnO thin films**
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SolarTr-3 Solar Electricity Conference and Exhibition ,
- 15 **Impact of highly Cu doping on certain physical properties of ZnS thin films**
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- 16 **Improving Certain Physical Properties of $\text{Zn}_{1-x}\text{Mn}_x\text{O}$ Thin Films Depended on Production Route for Solar Cell Applications: Sol-gel and Magnetron Sputtering**
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- 17 **Investigation of Optical and Electrical Properties of ITO Thin Films Produced by Magnetron Sputter Technique**
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- 19 Turkish Physical Society 32nd International Physics Congress ,
- 20 **pH-depended Structural and Optical Properties of ZnS nanocrystalline thin films**
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- 21 **Photovoltaic properties of stannite Cu₂CoSnS₄ (CCTS) thin film absorber**
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- 22 **Physical properties of sol-gel processed Cu₂ZnSnS₄ thin film absorber:Influence of annealing temperature**
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- 23 **Polisteren ince film yapıların dielektrik özellikleri**
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