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International Researcher IDs

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Publons / Web Of Science ResearcherID: K-6855-2019

ScopusID: 56487358200

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Education Information

Post Doctorate, Universidade Nova de Lisboa, Nova School of Science and Technology,
Department of Material Science, Portugal 2023 - 2023

Doctorate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Nanobilim Ve Nanomühendislik
(Dr), Turkey 2016 - 2022

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Nanobilim Ve Nanomühendislik
(Yl) (Tezli), Turkey 2013 - 2015

Undergraduate, Dokuz Eylul University, Mühendislik Fakültesi, Metalurji ve Malzeme
Mühendisliği Bölümü, Turkey 2009 - 2013

Dissertations

Doctorate, Production and development of perovskite solar cells with inorganic hole transport materials, Dokuz Eylul
University, Fen Bilimleri Enstitüsü, 2022

Postgraduate, Production and application of n- and p-type Si wafer using CVD method, Dokuz Eylul University, Fen
Bilimleri Enstitüsü, Nanobilim Ve Nanomühendislik (Yl) (Tezli), 2015

Research Areas

Ceramic Materials, Semiconductor and Superconductor Materials, Optical Properties, Testing and Control of Materials,
Nanomaterials

Academic Titles / Tasks

Lecturer PhD, Dokuz Eylul University, Rektörlük, Elektronik Malzemeler Üretimi Ve Uygulama Merkezi, 2018 - Continues

Jury Memberships

Post Graduate, Post Graduate, Universidade Nova de Lisboa, December, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Photocatalytic activities of Fe₂O₃ coated ZnO nanowires grown by electrochemical anodization method**
Akalin S. A., Yavaş A., Güler S., Erol M.
CERAMICS INTERNATIONAL, vol.51, pp.1-7, 2024 (SCI-Expanded)
- II. **Physically-Deposited Hole Transporters in Perovskite PV: NiO_x Improved with Li/Mg Doping**
Akalin S. A., Erol M., Uzunbayır B., Oğuzlar S., Yıldırım S., Gokdemir Choi F. P., Gunes S., Menda U. D. Y., Mendes M. J.
ADVANCED MATERIALS TECHNOLOGIES, pp.1-11, 2024 (SCI-Expanded)
- III. **Production and Characterizations of Sol-Gel-Derived Li, Cu:NiO_x Particles: An Investigation on the Effects of Li and Cu Incorporation**
Uzunbayır B., Akalin S. A., Yıldırım S., Erol M., Oğuzlar S.
JOURNAL OF ELECTRONIC MATERIALS, vol.52, no.8, pp.5534-5542, 2023 (SCI-Expanded)
- IV. **Production of Zn-doped TiO₂ film with enhanced photocatalytic activity**
Dikici T., Yılmaz O., Akalin A., Demirci S., Gültekin S., Yıldırım S., Yurddaşkal M.
JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY, vol.58, pp.1415-1421, 2022 (SCI-Expanded)
- V. **Sol-gel derived Li and Mg incorporated nickel oxide particles: An investigation on structural and optical properties**
Akalin S. A., Erol M., Uzunbayır B., Oğuzlar S., Yıldırım S.
OPTICAL MATERIALS, vol.118, 2021 (SCI-Expanded)
- VI. **Characterization and optical gas sensing properties of BaSnO₃ synthesized by novel technique: flame spray pyrolysis**
Zeyrek Ongun M., Oğuzlar S., Akalin S. A., Yıldırım S.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.11, pp.15160-15170, 2021 (SCI-Expanded)
- VII. **Synthesis, structural and optical characterization of Nd: YAG powders via flame spray pyrolysis**
Sakar N., Gergeroglu H., Akalin S. A., Oğuzlar S., Yıldırım S.
OPTICAL MATERIALS, vol.103, 2020 (SCI-Expanded)
- VIII. **Surface Treatments and Modifications of Si Wafers Produced by Czochralski Method for Solar Cell Applications**
AKALIN S. A., Celik E.
JOURNAL OF ELECTRONIC MATERIALS, vol.48, no.10, pp.6786-6791, 2019 (SCI-Expanded)
- IX. **Comparison of structural and optical properties of CeO₂ and CeO₂:Eu³⁺ nanoparticles synthesized via sol-gel and flame spray pyrolysis methods**
Yıldırım S., Akalin S. A., Oğuzlar S., Zeyrek Ongun M., Ozer C., Erol M.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.14, pp.13749-13756, 2019 (SCI-Expanded)
- X. **Synthesis and spectral characterization of Sr₄Al₁₄O₂₅:Eu²⁺/Dy³⁺ blue-green phosphorous powders by sol-gel method**
DEMİRCİ S., Gultekin S., AKALIN S. A., ÖTER Ö., ERTEKİN K., Celik E.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.31, pp.611-617, 2015 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Novel Concepts for Perovskite Solar Cells**
Menda U. D., Akalin S. A., Mateus T., Vicente A., Coimbra E., Camilo D., Aguas H., Martins R., Mendes M.
16th International Symposium on Flexible Organic Electronics (ISFOE23), Thessaloniki, Greece, 3 - 06 July 2023
- II. **DEPOSITION OF NiO_x and LiNiO_x THIN FILMS BY RF MAGNETRON SPUTTER METHODS FOR USING IN PEROVSKITE SOLAR CELLS**
Akalin S. A., Erol M., Uzunbayır B., Oğuzlar S., Yıldırım S.

III. Ulusal Üniversite Sanayi İşbirliği AR-GE ve İnovasyon Kongresi, Manisa, Turkey, 29 December 2020

III. PRODUCTION OF LAFeO₃ NANOPOWDERS AT LOW TEMPERATURE BY SOL-GEL METHOD

ÇOBAN ÖZKAN D., AKALIN S. A., TÜRK A., ÇELİK E.

5th International Conference on Engineering and Natural Science, 16 - 19 September 2019

IV. Production and Characterization of NiOx powders by Sol-Gel Method for Using as Sputtering Target Materials

Uzunbayır B., Erol M., Karakaya A., Solmaz C., Bursa F., Ortaş O., Yıldırım S., Akalın S. A.

3rd International Students Science Congress, İzmir, Turkey, 3 - 04 May 2019

V. Sol-Gel Synthesis And Characterization Of Titanium Dioxide Powder

AKALIN S. A., ÇOBAN ÖZKAN D., ÇELİK E., TÜRK A.

5TH INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, 12 - 16 June 2019

VI. Formation of n-layer on p-type Si Wafer and its Application on Solar Cells

AKALIN S. A., ÇELİK E.

3rd International Students Science Congress, 3 - 04 May 2019

VII. Characterization of undoped and Eu³⁺ doped CeO₂ synthesized by sol-gel and flame spray pyrolysis methods

Oğuzlar S., Zeyrek Ongun M., Akalın S. A., Yıldırım S.

International Eurasian Conference on Science, Engineering and Technology EurasianSciEnTech 2018, Ankara, Turkey, 22 - 23 November 2018

VIII. Structural and Luminescence Properties of Zinc Stannate Nanoparticles Synthesized via Sol-Gel and Flame Spray Pyrolysis Technique

Akalın S. A., Oğuzlar S., Zeyrek Ongun M., Yıldırım S.

II. INTERNATIONAL UNIVERSITY INDUSTRY COOPERATION, RD AND INNOVATION CONGRESS, Manisa, Turkey, 14 - 15 November 2018

Supported Projects

Yurddaşkal M., Erol M., Akalın S. A., Öztürk Y., TÜBİTAK Project, Gelişmiş Spektral Duyarlılık için ZnO/Si Ultraviyole Fotodetektör Geliştirilmesi, 2024 - 2026

Akalın S. A., TÜBİTAK Project, Production and Development of Perovskite Solar Cells on Flexible Paper Substrates, 2023 - 2023

Şenyay Öncel D., Özçelik Ö., Berk İ., Koyuncuoğlu Yılmaz C., Akalın S. A., TÜBİTAK Project, Dokuz Eylül Üniversitesi Teknoloji Transfer Ofisi, 2014 - 2023

Akalın S. A., Selim H., TÜBİTAK Project, BİGG SİNERJİ, 2020 - 2022

Erol M., Akalın S. A., Yıldırım S., Oğuzlar S., Project Supported by Higher Education Institutions, Yeni Nesil Perovskit Güneş Hücrelerinde Boşluk Taşıyıcı Malzemelerin Üretilmesi ve Geliştirilmesi, 2019 - 2022

Akalın S. A., Bayram A., Öztürk H., Tamer Ö., Kılınç S., Erginer K. E., Development Agency, Entegre Yenilenebilir Enerji Sistemlerinin İmal Edilmesi ve Ulaşım Taşıtlarında Uygulanması, 2013 - 2014

Scientific Refereeing

Fırat Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, May 2023

JOURNAL OF MATERIALS SCIENCE: MATERIALS IN ELECTRONICS, Journal Indexed in SCI-E, April 2023

SILICON, Journal Indexed in SCI-E, March 2023

Düzce Üniversitesi Bilim ve Teknoloji Dergisi, National Scientific Refreed Journal, March 2023

Metrics

Publication: 20
Citation (WoS): 51
Citation (Scopus): 68
H-Index (WoS): 4
H-Index (Scopus): 4

Congress and Symposium Activities

III. Ulusal Üniversite Sanayi İşbirliği AR-GE ve İnovasyon Kongresi, Attendee, Manisa, Turkey, 2020
3rd International Students Science Congress, Attendee, İzmir, Turkey, 2019
II. INTERNATIONAL UNIVERSITY INDUSTRY COOPERATION, RD AND INNOVATION CONGRESS, Attendee, Manisa, Turkey, 2018

Invited Talks

TÜRKİYE-ITALY INTERNATIONAL WORKSHOP on GREEN HYDROGEN ENERGY, Workshop, Ege Üniversitesi Güneş Enerjisi Enstitüsü, Turkey, October 2023
Grad Workshop - Emerging PV Technologies, Seminar, Yıldız Teknik Üniversitesi, Turkey, February 2022

Scholarships

2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, TÜBİTAK, 2023 - Continues