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International Researcher IDs

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Publons / Web Of Science ResearcherID: AFE-3791-2022

ScopusID: 57204239633

Yoksis Researcher ID: 202818

Education Information

Doctorate, Erciyes University, Fen Fakültesi, Fizik, Turkey 2017 - 2020

Postgraduate, Erciyes University, Fen Fakültesi, Fizik, Turkey 2014 - 2017

Undergraduate, Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik, Turkey 2007 - 2011

Dissertations

Doctorate, Nano-Er₂O₃, Eu₂O₃, Gd₂O₃ ve Ho₂O₃ Katkılı Nano-Bi₂O₃ Katı Elektrolit Malzemelerin Sentezi ve Karakterizasyonu, Erciyes University, Fen Fakültesi, Fizik, 2020

Postgraduate, Samaryum trioksit, gadolinyum trioksit ve evropiyum trioksit katkılı bizmut trioksit tabanlı elektrolit malzemelerin karakterizasyonu, Erciyes University, Fen Fakültesi, Fizik, 2017

Research Areas

Physics, Natural Sciences

Academic Titles / Tasks

Research Assistant PhD, Erciyes University, Fen Fakültesi, Fizik, 2014 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Structural, thermal, surface, and electrical properties of Bi₂O₃ ceramics co-doped with Er-Ho-Tb rare earths**
BALCI M.
JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY, 2024 (SCI-Expanded)
- II. **An investigation on the phase formation and electrical properties of Bi₂O₃ ceramics co-doped with Ce-Ho-Tb rare earths**

Balcı M., Payveren Arıkan M., Saatçi B., Arı M.

JOURNAL OF SOLID STATE CHEMISTRY, vol.329, no.--, pp.124447, 2024 (SCI-Expanded)

- III. **The impact of annealing temperature and dopant concentration on the crystal structure and conductivity of single doped (Bi₂O₃)_{1-x}(Tb₄O₇)_x solid electrolyte systems**

Balcı M., Saatçi B., Arı M.

PHYSICA B: CONDENSED MATTER, vol.673, no.-, pp.415487, 2024 (SCI-Expanded)

- IV. **Synthesis and characterization of Dy-Eu-Tm co-doped cubic phase stabilized bismuth oxide based electrolytes in terms of intermediate temperature-solid oxide fuel cells (IT-SOFCs)**

GÜLDESTE A., Aldoori M., BALCI M., ARI M., Polat Y.

Journal of Rare Earths, vol.41, no.3, pp.406-412, 2023 (SCI-Expanded)

- V. **A study of the microstructure and thermo-electrical properties of Bi₂O₃ ceramics co-doped with rare earth oxides**

BALCI M., ARI M.

Journal of Materials Science: Materials in Electronics, vol.34, no.6, 2023 (SCI-Expanded)

- VI. **The synthesis of Eu-Tb-Ho co-doped Bi₂O₃-based ceramic powders for use in intermediate temperature-SOFCs**

Balcı M., Saatçi B., Cerit S., Arı M.

SOLID STATE IONICS, vol.387, no.1, pp.116060, 2022 (SCI-Expanded)

- VII. **Structural, thermal and electrical analysis of Tb-Gd-Sm co-doped Bi₂O₃-based solid solutions for intermediate-temperature solid oxide fuel cells (IT-SOFCs)**

Balcı M., Al-Jaafer H., Arı M.

CHEMICAL PHYSICS LETTERS, vol.809, pp.140149, 2022 (SCI-Expanded)

- VIII. **Effect of ratios of dopant contents on the electrical conductivity of Bi₂O₃ ceramics co-doped with some rare earth oxides**

Balcı M., Saatçi B., Turk H., Arı M.

MATERIALS TODAY COMMUNICATIONS, vol.33, 2022 (SCI-Expanded)

- IX. **The microstructure and thermo-electrical characterization of the Tb-Gd-Ho co-doped stabilized Bi₂O₃ based solid electrolyte systems**

BALCI M., Cengel A., ARI M.

CHINESE JOURNAL OF PHYSICS, vol.79, pp.89-97, 2022 (SCI-Expanded)

- X. **Synthesis and characterization of (Bi₂O₃)(1-x-y-z)(Gd₂O₃)(x)(Sm₂O₃)(y)(Eu₂O₃)(z) quaternary solid solutions for solid oxide fuel cell**

ARI M., BALCI M., Polat Y.

CHINESE JOURNAL OF PHYSICS, vol.56, no.6, pp.2958-2966, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Synthesis and Characterization of Tb-Er Co-Doped Bi₂O₃ Solid Electrolyte Systems**

Balcı M.

CUMHURİYET SCIENCE JOURNAL, vol.44, no.3, pp.595-601, 2023 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **SYNTHESIS AND CHARACTERIZATION OF THE Bi₂O₃ ELECTROLYTES DOPED WITH CeO₂, Ho₂O₃ and Tb₄O₇ RARE EARTHS**

Arıkan Payveren M., Balcı M.

IV. BASKENT INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES, Ankara, Turkey, 4 - 06 August 2023, pp.59-60

- II. **A STUDY ON THE ELECTRICAL CONDUCTIVITY AND PHASE STABILITY OF THE (Bi₂O₃)_{1-x-y}**

(Tm₂O₃)_x (Yb₂O₃)_y DOUBLE-DOPED ELECTROLYTES AT INTERMEDIATE TEMPERATURES

Arikan Payveren M., Balci M.

IV. BASKENT INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES, Ankara, Turkey, 4 - 06 August 2023, pp.61-62

III. FABRICATION AND CHARACTERIZATION OF TB-SM-GD CO-DOPED BI₂O₃ ELECTROLYTES FOR INTERMEDIATE TEMPERATURES

Payveren Arikan M., Balci M.

1 st BİLSEL INTERNATIONAL WORLD SCIENCE AND RESEARCH CONGRESS, İstanbul, Turkey, 24 - 25 June 2023, pp.504

IV. CHARACTERIZATION OF STRUCTURAL, THERMAL, ELECTRICAL, AND MORPHOLOGICAL PROPERTIES OF BI₂O₃ ELECTROLYTES CO-DOPED WITH LANTHANIDE OXIDES

Arikan Payveren M., Balci M.

st BİLSEL INTERNATIONAL WORLD SCIENCE AND RESEARCH CONGRESS 24/25 JUNE 2023 ISTANBUL/TURKEY, İstanbul, Turkey, 24 - 25 June 2023, pp.505

V. Structural Electrical, Thermal and Mechanical Properties and Micro-hardness in Al Based Al-Sn-Mg in Ternary Alloys

ALPER BİLLUR C., NAİR F., BALCI M., ARI M., SAATÇI B.

ICENS 2017 - 3rd Conference of Engineering and Natural Science, Budapest, Hungary, 3 - 07 May 2017, pp.681

VI. GROWTH TEMPERATURE EFFECTS ON SURFACE MORPHOLOGY OF EPITAXIAL GAAS LAYERS GROWN BY MOCVD

Balci M., Boz M. A., Demir İ., Kılıç D., Elagoz S.

TURKISH PHYSICAL SOCIETY 30th INTERNATIONAL PHYSICS CONGRESS, İstanbul, Turkey, 2 - 09 September 2013, pp.141

Supported Projects

ARI M., POLAT Y., BALCI M., KARTAL Ş., SAATÇI B., ÖZPOZAN T., GÜNERİ E., Project Supported by Higher Education Institutions, Poly kristal Si (p-Si) ince filmlerin mürekkep püskürtme Inkjet tekniği ile hazırlanması ve fiziksel özelliklerinin araştırılması, 2017 - 2023

Karkı H. D., Elagoz S., Turan R., TUBITAK Project, Yüksek verimli ardışık gaxin1-xp/gaxin1-xas güneş pillerinin üretimi ve alttaşı etkisinin araştırılması, 2010 - 2014

Metrics

Publication: 17

Citation (WoS): 26

Citation (Scopus): 32

H-Index (WoS): 4

H-Index (Scopus): 4

Scholarships

2210-C Yurt İçi Öncelikli Alanlar Yüksek Lisans Bursu, TUBITAK, 2014 - 2015