

## Prof. SERAP SAFRAN

### Personal Information

**Office Phone:** [+90 312 216 8915](tel:+903122168915)

**Email:** [safran@science.ankara.edu.tr](mailto:safran@science.ankara.edu.tr)

**Other Email:** [safranserap@gmail.com](mailto:safranserap@gmail.com)

**Web:** <https://avesis.ankara.edu.tr/safran>

### International Researcher IDs

ORCID: 0000-0001-5084-9369

ScopusID: 8833645400

Yoksis Researcher ID: 182628

### Education

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 2006 - 2010

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (YI) (Tezli), Turkey 2002 - 2005

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1997 - 2002

### Dissertations

Doctorate, Mgb2 süperiletken tellerde alternatif akım kaybı ve akı perçinleme mekanizmaları, Ankara University, Fen Bilimleri Enstitüsü, Fizik (Dr), 2010

Postgraduate, X-ışını kırınımı yöntemi ile bazı fosfaza-lariat eterlerin kristal yapı analizi, Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (YI) (Tezli), 2005

### Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

### Academic Positions

Professor, Ankara University, Fen Fakültesi, Fizik Bölümü, 2023 - Continues

Associate Professor, Ankara University, Fen Fakültesi, Fizik Bölümü, 2017 - 2023

Expert, Ankara University, Fen Fakültesi, Fizik Bölümü, 2010 - 2020

Research Assistant, Slovakia Bilimler Akademisi, Elektrik Mühendisliği Enstitüsü, 2009 - 2010

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2002 - 2005

### Academic and Administrative Experience

Erasmus Program Department Coordinator, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Bilimler Enstitüsü, 2021 - Continues

Head of the Department Bologna Commission, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2021

- Continues

Assistant Director of the Institute, Ankara University, Nükleer Bilimler Enstitüsü, 2021 - Continues

Enstitü Yönetim Kurulu Üyesi, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2021 - Continues

Deputy Head of Department, Ankara University, Fen Fakültesi, Fizik Bölümü, 2020 - Continues

## Courses

### Doctorate

Uzmanlık Alan dersi, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Uygulamalı Süper İletkenliğin Temelleri, Doctorate, 2020 - 2021

İleri Malzeme Fiziği, Doctorate, 2021 - 2022

### Postgraduate

Medikal Cihazlarda Radyasyon Kullanımı, Postgraduate, 2022 - 2023

### Undergraduate

Bilimsel, Kültürel Ve Sosyal Etkinlikler, Undergraduate, 2023 - 2024, 2022 - 2023

PHYSICS II, Undergraduate, 2022 - 2023

Katıl Fiziki II, Undergraduate, 2022 - 2023, 2021 - 2022

Fizik Lab. 1, Undergraduate, 2023 - 2024

Kristal Fiziği, Undergraduate, 2023 - 2024

Fizik, Undergraduate, 2023 - 2024, 2022 - 2023

İş Sağlığı ve Güvenliği 2, Undergraduate, 2022 - 2023, 2021 - 2022

İş Sağlığı Ve Güvenliği I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Özel Konular, Undergraduate, 2021 - 2022

Fizik II, Undergraduate, 2021 - 2022

## Supervised Theses

Safran S., Nötron dozimetrisinde MGB2 filtreli BEO dozimetrelerin kullanılabilirliğinin araştırılması, Postgraduate, B.KAPLAN(Student), 2023

Safran S., Öztürk Ö., Sol-jel yöntemi ile hazırlanan TB ve ZN katkılı YBCO-123 ve YBCO-358 süperiletkenlerinin incelenmesi, Doctorate, G.GÜDÜCÜ(Student), 2022

SAFRAN S., Preparation of europium (Eu) doped gadolinium lutetium oxide transparent ceramic scintillator, Postgraduate, Ö.ABAY(Student), 2021

## Journal articles indexed in SCI, SSCI, and AHCI

- I. **Assessment of superconducting and structural stability of advanced Y-123 and Y-358 ceramics with Tb/Y substitution in main matrices**  
Güdücü G., Öztürk Ö., Kurnaz S., Tokeşer E. A., SAFRAN S., Yıldırım G.  
Journal of Alloys and Compounds, vol.997, 2024 (SCI-Expanded)
- II. **Stabilization of durable tetragonal phase and barrier regions in y-123 ceramic systems with partial substitution mechanism**  
Güdücü G., SAFRAN S., Kurnaz S., Tokeser E. A., Seydioglu T., Yildirim G., Ozturk O.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.35, no.19, 2024 (SCI-Expanded)
- III. **Evolution of fundamental mechanical properties with aliovalent Co/Cu partial substitution and preparation method for Y-123 system**  
Ozturk O., Safran S., Ada H., Bulut F., Seydioglu T., Nefrow A. R. A., Akkurt B., Terzioglu C., Yildirim G.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.35, no.15, 2024 (SCI-Expanded)

- IV. **Examination of pairing mechanism, orbital hybridization, stabilization and magnetization behavior of Tb/Y and Zn/Cu partially substituted Y-123 Superconductors**  
Ozturk O., Guducu G., Safran S., Yildirim G.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.924, 2022 (SCI-Expanded)
- V. **Comparison of the Dopant Effect and Sample Preparation Method on Y-123 Superconductors**  
Ozturk O., Nefrow A. R. A., Bulut F., Kurnaz S., Safran S.  
Journal of Superconductivity and Novel Magnetism, vol.34, no.11, pp.2821-2832, 2021 (SCI-Expanded)
- VI. **Characterization of the CoFe<sub>2</sub>O<sub>4</sub>/Cu displacement effect in the Y123 superconductor matrix on critical properties**  
Safran S., Bulut F., Nefrow A. R. A., Ada H., Ozturk O.  
Journal of Materials Science: Materials in Electronics, vol.31, no.22, pp.20578-20588, 2020 (SCI-Expanded)
- VII. **Critical current density and mechanical performance of MgB<sub>2</sub> superconductors prepared with different magnesium sources**  
SAFRAN S.  
CERAMICS INTERNATIONAL, vol.45, no.8, pp.10243-10249, 2019 (SCI-Expanded)
- VIII. **Experimental and theoretical approaches for electrical, magnetic, micromechanical, and structural characterization of BSCCO ceramic superconductors**  
Safran S., Ozturk H., Bulut F., Ozturk O.  
Ceramics International, vol.44, no.10, pp.11674-11681, 2018 (SCI-Expanded)
- IX. **Effects of carbon-encapsulated nano boron addition on superconducting parameters of BSCCO**  
Ozturk H., SAFRAN S.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.731, pp.831-838, 2018 (SCI-Expanded)
- X. **Test of 6-kVA Three-Phase Flux Transfer-Type Current-Limiting Transformer**  
Ertekin E., Gecer S., Yanmaz E., Safran S., Kosa J., Kilicarslan E. S., Kilic A., Amemiya N., Gencer A.  
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.30, no.12, pp.3549-3553, 2017 (SCI-Expanded)
- XI. **The influence of re-pelletization and heat treatment on physical, superconducting, magnetic and micro-mechanical properties of bulk BSCCO samples prepared by ammonium nitrate precipitation method**  
Safran S., Ozturk H., Bulut F., Ozturk O.  
Ceramics International, vol.43, no.17, pp.15586-15592, 2017 (SCI-Expanded)
- XII. **AC loss characterization of single pancake BSCCO coils by measured different methods**  
SAFRAN S., Souc J., Gomory F.  
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.541, pp.45-49, 2017 (SCI-Expanded)
- XIII. **Effect of re-pelletization on structural, mechanical and superconducting properties of BSCCO superconductors**  
Safran S., Kilic A., Ozturk O.  
Journal of Materials Science: Materials in Electronics, vol.28, no.2, pp.1799-1803, 2017 (SCI-Expanded)
- XIV. **Switching and Decoupling Effects in a Single-Phase Transformer Using Extra DC Current**  
Gecer S., Ertekin E., Yanmaz E., Kosa J., Safran S., Ozguzel R., Kilicarslan E. S., Kilic A., Gencer A.  
IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.26, no.3, 2016 (SCI-Expanded)
- XV. **Ac Susceptibility Measurements and Mechanical Performance of Bulk MgB<sub>2</sub>**  
Ozturk O., Asikuzun E., Kaya S., Erdem M., Safran S., Kilic A., Terzioglu C.  
Journal of Superconductivity and Novel Magnetism, vol.28, no.7, pp.1943-1952, 2015 (SCI-Expanded)
- XVI. **Superconducting and mechanical properties of the bulk Bi(pb)SCCO system prepared via solid state and ammonium nitrate precipitation methods**  
Safran S., Kilicarslan E., Ozturk H., Alp M., Akdogan M., Asikuzun E., Ozturk O., Kilic A.  
Physica B: Condensed Matter, vol.472, pp.34-40, 2015 (SCI-Expanded)
- XVII. **Mechanical, microstructural and magnetic properties of the bulk BSCCO superconductor prepared by two different methods**  
Safran S., Kilic A., Kilicarslan E., Ozturk H., Alp M., Asikuzun E., Ozturk O.  
Journal of Materials Science: Materials in Electronics, vol.26, no.4, pp.2622-2628, 2015 (SCI-Expanded)

- XVIII. **The role of various boron precursor on superconducting properties of MgB<sub>2</sub>/Fe**  
Safran S., Kilicarslan E., Kilic A., Gencer A.  
CRYOGENICS, vol.63, pp.133-137, 2014 (SCI-Expanded)
- XIX. **Influence of different boron precursors on superconducting and mechanical properties of MgB<sub>2</sub>**  
Safran S., Kilic A., Asikuzun E., Kilicarslan E., Ozturk O., Gencer A.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.25, no.6, pp.2737-2747, 2014 (SCI-Expanded)
- XX. **Experimentally Determined Magnetization ac Losses of Mono and Multifilamentary MgB<sub>2</sub> Wires**  
Safran S., Souc J., Goemoery F., Kovac P., Gencer A.  
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.26, no.5, pp.1557-1561, 2013 (SCI-Expanded)
- XXI. **Microstructural and superconducting properties of C 6H 6 added bulk MgB 2 superconductor**  
Babaoglu M. G., SAFRAN S., Çiçek Ö., Agl H., Ertekin E., Hossain M. A., Yanmaz E., GENÇER A.  
Journal of Magnetism and Magnetic Materials, vol.324, no.21, pp.3455-3459, 2012 (SCI-Expanded)
- XXII. **AC losses of monofilament Ti-clad MgB 2 wire**  
Safran S., Šouc J., Rostila L., Brisigotti S., Gömöry F., GENÇER A.  
Journal of Superconductivity and Novel Magnetism, vol.24, no.1-2, pp.437-441, 2011 (SCI-Expanded)
- XXIII. **AC loss in stacks of Bi-2223/Ag tapes modified with ferromagnetic covers at the edges**  
Safran S., Gömöry F., GENÇER A.  
Superconductor Science and Technology, vol.23, no.10, 2010 (SCI-Expanded)
- XXIV. **Critical current and AC loss of DI-BSCCO tape modified by the deposition of ferromagnetic layer on edges**  
SAFRAN S., Vojenciak M., GENÇER A., Gömöry F.  
IEEE Transactions on Applied Superconductivity, vol.20, no.5, pp.2294-2300, 2010 (SCI-Expanded)
- XXV. **Intramolecular hydrogen bonding and tautomerism in Schiff bases: Part VI. Syntheses and structural investigation of salicylaldimine and naphthaldimine derivatives**  
Bilge S., Kilic Z., HAYVALI Z., HÖKELEK T., Safran S.  
Journal of Chemical Sciences, vol.121, no.6, pp.989-1001, 2009 (SCI-Expanded)
- XXVI. **Phosphorus-nitrogen compounds: New spiro-cyclic phosphazene derivatives. Structure of 4',4',6',6'-tetrachloro-3,4-dihydro-3-(3-methylpyridin-2-yl)-spiro-[1,3,2-benzoxazaphosphinine-2,2'-(2 lambda(5),4 lambda(5),6 lambda(5)-cyclo-triphosphazene)]. Part XII**  
Dal H., Safran S., Suzen Y., Hokelek T., Kilic Z.  
JOURNAL OF MOLECULAR STRUCTURE, vol.753, no.1-3, pp.84-91, 2005 (SCI-Expanded)
- XXVII. **Phosphorus-nitrogen compounds: Novel fully substituted spiro-cyclophosphazenic lariat (PNP-pivot) ether derivatives. Structures of 4,4,6,6-tetrapyrrolidino-2,2-[3-oxa-1,5-pentane dioxy bis(2-phenylamino)]cyclo-2 lambda(5),4 lambda(5),6 lambda(5)-triphosphazene and 4,4,6,6-tetrapyrrolidino-2,2-[1,2-xylene dioxy bis(2-phenylamino)]cyclo-2 lambda(5), 4 lambda(5),6 lambda(5)-trinosphazene. Part XI**  
Bilge S., Ozguc B., Safran S., Demiriz S., Isler H., Hayvali M., Kilic Z., Hokelek T.  
JOURNAL OF MOLECULAR STRUCTURE, vol.748, no.1-3, pp.101-109, 2005 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The Effect of Sintering Number on Crystallographic and Microhardness Properties of MgB<sub>2</sub> Samples Obtained by Mixing Ready MgB<sub>2</sub> Powders and Mg and B Powders**  
KAYA N., SAFRAN S.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.10, no.2, pp.273-285, 2022 (Peer-Reviewed Journal)
- II. **Characteristics of ZnO:Er Nano Thin Films Produced Different Thickness Using Different Solvent By Sol-Gel Method**  
Öztürk Ö., Aşıkuzun E., Hacıoğlu Z. B., Safran S.

- III. **Karbon Kaplı Nano-Bor Kullanılarak Hazırlanan Süperiletken MgB<sub>2</sub> Numunelerde Magnezyum Kaynağının Yapısal ve Elektriksel Özellikler Üzerindeki Rolü**  
SAFRAN S.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, 2018 (Peer-Reviewed Journal)

### **Papers Presented at Peer-Reviewed Scientific Conferences**

- I. **INFLUENCE OF HEAT TREATMENT TIME ON ELECTRICAL AND STRUCTURAL PROPERTIES OF MgB<sub>2</sub> SUPERCONDUCTING WIRE PRODUCED FROM FUNCTIONALLY GRADED MATERIAL**  
Bilgin S., Safran S., Çinici H.  
6 TH ANKARA INTERNATIONAL CONGRESS ON SCIENTIFIC RESEARCH, Ankara, Turkey, 1 - 03 April 2022, pp.1708-1713, (Full Text)
- II. **MgB<sub>2</sub> superconductors produced by Encapsulated Nano Boron with two different magnesium sources**  
SAFRAN S., ÖZTÜRK Ö.  
6th International Conference on Superconductivity and Magnetism- ICSM2018, 29 April - 04 May 2018, (Summary Text)
- III. **The Effect of Production Methods on Structural and Mechanical Properties of BSSCO Ceramic Superconductor**  
SAFRAN S., ozturk h., Bulut F., ÖZTÜRK Ö.  
6th International Conference on Superconductivity and Magnetism- ICSM2018, 29 April - 04 May 2018, (Summary Text)
- IV. **A Comparative Study of Bulk BSCCO High Temperature Superconductor Fabricated by Ammonium Nitrate and Solid State Reaction Methods**  
SAFRAN S., öztürk H., Bulut F., ÖZTÜRK Ö.  
Topical Workshop: Emerging Trends in Applications and Multiphysics Simulations in Superconductivity 2018 (ETAMSS18), 22 - 24 February 2018
- V. **Superconducting properties of Ag and Ag Cu Alloy Sheathed Bi 2223 Wires**  
SAFRAN S., KİLİCARSLAN E., OZTURK H., ALP M., GENÇER A., KILIÇ A.  
5th International Conference on Superconductivity and Magnetism 2016, 24 April - 30 June 2016
- VI. **DEVELOPING THE PHYSICAL PROPERTIES OF Bi Pb 2223 PHASE BY CARBON ENCAPSULATED BORON 98 B 2 C NANO PARTICLES ADDITION**  
ÖZTÜRK H., SAFRAN S., KILIÇ A.  
5th International Conference on Superconductivity and Magnetism, 24 - 30 April 2016
- VII. **Effect of Pressing on Mechanical and Superconducting Properties of Bi 2223 Bulks**  
KILIÇ A., SAFRAN S., AŞIKUZUN E., ÖZTÜRK Ö.  
The 8th Asian Conference on Applied Superconductivity and Cryogenics(ACASC 2015), 22 - 25 November 2015
- VIII. **Experimental Study of AC loss in Single Pancake BSCCO Coils**  
SAFRAN S., KILIÇ A., JANO S., GENÇER A., FEDOR G.  
8th Asian Conference on Applied Superconductivity and Cryogenics, 22 - 24 November 2015, (Summary Text)
- IX. **Recent Research Efforts in Turkey for Fault Current Limitation by Transformers via Flux Transfer**  
GENÇER A., ertekin e., geçer s., kosa j., SAFRAN S., KILIÇ A.  
The 8th Asian Conference on Applied Superconductivity and Cryogenics(ACASC 2015), 22 - 25 November 2015, (Summary Text)
- X. **Recent Research Effrots in Turkey for Fault Current Limitation by Transformers via Flux Transfer**  
GENÇER A., ertekin e., geçer s., kosa j., SAFRAN S., KILIÇ A.  
The 8th Asian Conference on Applied Superconductivity and Cryogenics(ACASC 2015), 22 - 25 November 2015, (Summary Text)
- XI. **AC Loss Measurement of Pancake BSCCO Coils**

SAFRAN S., KILIÇ A., jano s., GENÇER A., fedor g.

International Workshop on Cooling-systemfor HTS Applications, 14 - 16 October 2015

**XII. Cooling and Operation of Transformers Based on Flux Transfer**

GENÇER A., JANOS K., ERCAN E., YANMAZ E., SAHURE G., SAFRAN S., Simsek Kilicarslan E., KILIÇ A.

International Workshop on Cooling System for HTS Applications (IWC-HTS), 14 - 16 October 2015, (Summary Text)

**XIII. Test of 6 kVA 3 Phase Flux Transfer Type Current Limiting Transformer**

ercan e., janos k., YANMAZ E., sahure g., SAFRAN S., ebru ş. k., KILIÇ A., GENÇER A.

12 th European Conference on Applied Superconductivity, 6 - 10 September 2015, (Summary Text)

**XIV. Effects of Nano Boron 98 B 2 C Addition on Superconducting Properties BSCCO**

Hamit Ö., SAFRAN S., KILIÇ A., GENÇER A.

12 th European Conference on Applied Superconductivity, 6 - 10 September 2015

**XV. Switching and Decoupling Effects in a Single Phase Transformer using Extra DC current**

sahure g., janos k., ercan e., YANMAZ E., SAFRAN S., ebru ş. k., KILIÇ A., KILIÇ A., GENÇER A., GENÇER A.

12 th European Conference on Applied Superconductivity, 6 - 10 September 2015

**XVI. Effect of Pressing on Structural Mechanical and Superconducting Properties of BSCCO Bulk Materials**

SAFRAN S., KILIÇ A., AŞIKUZUN E., ÖZTÜRK Ö.

12 th European Conference on Applied Superconductivity, 6 - 10 September 2015

**XVII. Test of Transformers Based on Flux Transfer**

GENÇER A., ercan e., sahure g., janos k., YANMAZ E., ebru k., SAFRAN S., KILIÇ A.

Donostia International Workshop on Energy, Materials, and Nanotechnology (DINEMN), 1 - 04 September 2015, (Summary Text)

**XVIII. Evaluation of 6 kVA 3 Phase Current Limiting Transformer Operating by Flux Transfer**

GENÇER A., ERTEKİN E., JANOS K., GEÇER S., SAFRAN S., KILIÇARSLAN E., KILIÇ A., YANMAZ E.

The International Conference M2S HTSC 2015, 23 - 28 August 2015, (Summary Text)

## Funded Projects

Safran S., Coşkun E., Seçkin A., Öznel Y., Koralay H., Sönmez K., Gençer A., TUBİTAK Project, Yüksek Performanslı Magnezyum Diborür Süperiletken Malzemeler, 2024 - 2027

Safran S., Onur M. R., Karataş Ö., TUBİTAK Project, Kuru jelatin biyomalzemesinin radyasyon dozimetresi olarak kullanılabilirliğinin araştırılması ve optimizasyonu, 2024 - 2026

Safran S., Yücel H., Aşlar E., Other International Funding Programs, Enhancing the Capacities of Educational Institutions for the Sustainable use of Nuclear Technologies, 2022 - 2025

Safran S., Aksoy C., TÜBİTAK - AB COST Project, High-Temperature SuperConductivity for AcceLerating the Energy Transition (Hi-SCALE), 2020 - 2024

Safran S., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Ulusal Süperiletkenlik Araştırma Laboratuvarı Kalkınma Bakanlığı projesi, 2010 - 2024

Safran S., Gençer A., TUBİTAK Project, Sfcl Özellikli Dağıtım Transformatörü (Sdtr), 2017 - 2021

SAFRAN S., TUBİTAK Project, Hatalı akım sınırlayıcı için uygun nano yapılı süperiletken külçe MgB<sub>2</sub> ve eriyik Y Ba Cu O halka numunelerin yüksek basınç ve sıcaklık altında üretimi manyetik ve mekanik karakterizasyonu, 2014 - 2016

SAFRAN S., TUBİTAK Project, Farklı Kılıflı Bi 2223 Süperiletken Tel Ve Şeritlerden Bobin Yapımı Ve Transport Alternatif Akım Kayıplarının İncelenmesi, 2013 - 2015

Safran S., Gençer A., Project Supported by Higher Education Institutions, Çok Damarlı MgB<sub>2</sub> Süperiletken Üretimi Nano boyutta Katkılama Yöntemi ile Özelliklerinin İyileştirilmesi ve Fiziksel Karakterizasyonu, 2008 - 2012

SAFRAN S., TUBİTAK Project, Bor tabanlı ve MgB<sub>2</sub> tabanlı tellerin üretimi hazırlanması ve Karakterizasyonu BOREN projesi, 2006 - 2008

## **Patent**

Gençer A., Safran S., Bir Süperiletken Koruma Birimi, Patent, CHAPTER G Physics, The Invention Registration Number: TR 2022 004375 B , Standard Registration, 2023

## **Activities in Scientific Journals**

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, Assistant Editor/Section Editor, 2022 - Continues

## **Metrics**

Publication: 50

Citation (WoS): 193

Citation (Scopus): 223

H-Index (WoS): 8

H-Index (Scopus): 9

## **Congress and Symposium Activities**

8 th International Conference on Superconductivity and Magnetism, Audience, Muğla, Turkey, 2023

## **Artistic Activity**

SAFRAN S., 4007 Bilim Şenliği Destekleme Programı, October 2017