

Prof. YAKUP BALCI

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Inonu University, Fen Edeb Fak/Fizik Bölümü, Fenedb Fak, Turkey 1993 - 1997

Postgraduate, Inonu University, Fen Edeb Fak . Fen Bilimleri, Fizik, Genel Fizik, Turkey 1985 - 1987

Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Thermal Properties of Condensed Matter, Natural Sciences

Academic Titles / Tasks

Professor, Inonu University, Fen Edebiyat Fakültesi, Fizik, 2014 - Continues

Associate Professor, Inonu University, Fen Edeb Fk, Fizik, 2009 - 2013

Assistant Professor, Inonu University, Fen Edeb Fak, Fizik, 1997 - 2012

Research Assistant, Inonu University, Fen Edeb Fak, Fizik, 1985 - 1997

Academic and Administrative Experience

Inonu University, Fen-Edebiyat Fakültesi, 2005 - Continues

Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2010 - 2013

Courses

Katıhal Fiziği II, Undergraduate, 2013-2014

GENEL FİZİK(ELEKTRİK), Undergraduate, 2013-2014

GENEL FİZİK(MEKANİK), Undergraduate, 2013-2014

Katıhal fiziği I, Undergraduate, 2013-2014

FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2013-2014

KATIHAL FİZİĞİ, Undergraduate Double Major, 2013-2014

Katıhal fiziği I, Undergraduate, 2012-2013

Katıhal Fiziği II, Undergraduate, 2012-2013

FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2012-2013

X-IŞINLARI, Undergraduate Double Major, 2012-2013

GENEL FİZİK(ELEKTRİK), Undergraduate, 2012-2013
GENEL FİZİK(MEKANİK), Undergraduate, 2012-2013
KATIHAL FİZİĞİ, Undergraduate Double Major, 2012-2013
X-İŞİNLARI, Undergraduate Double Major, 2011-2012
Kathal Fiziği II, Undergraduate, 2011-2012
KATIHAL FİZİĞİ, Undergraduate Double Major, 2011-2012
FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2011-2012
GENEL FİZİK(MEKANİK), Undergraduate, 2011-2012
Kathal fiziği I, Undergraduate, 2011-2012
GENEL FİZİK(ELEKTRİK), Undergraduate, 2011-2012
GENEL FİZİK(ELEKTRİK), Undergraduate, 2010-2011
Kathal fiziği I, Undergraduate, 2010-2011
X-İŞİNLARI, Undergraduate Double Major, 2010-2011
Kathal Fiziği II, Undergraduate, 2010-2011
GENEL FİZİK(MEKANİK), Undergraduate, 2009-2010
Kathal Fiziği II, Undergraduate, 2009-2010
FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2009-2010
Süperilietkenler, Undergraduate Double Major, 2009-2010
GENEL FİZİK(ELEKTRİK), Undergraduate, 2009-2010
Kathal fiziği I, Undergraduate, 2009-2010
KATIHAL FİZİĞİ, Undergraduate Double Major, 2009-2010
Kathal fiziği I, Undergraduate, 2008-2009
X-İŞİNLARI, Undergraduate Double Major, 2008-2009
Kathal Fiziği II, Undergraduate, 2008-2009
FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2008-2009
KATIHAL FİZİĞİ, Undergraduate Double Major, 2008-2009
Kathal Fiziği II, Undergraduate, 2007-2008
GENEL FİZİK(ELEKTRİK), Undergraduate, 2007-2008
GENEL FİZİK(MEKANİK), Undergraduate, 2007-2008
Kathal fiziği I, Undergraduate, 2007-2008
Süperilietkenler, Undergraduate Double Major, 2007-2008
Kathal Fiziği II, Undergraduate, 2006-2007
X-İŞİNLARI, Undergraduate Double Major, 2006-2007
FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2006-2007
KATIHAL FİZİĞİ, Undergraduate Double Major, 2006-2007
Kathal fiziği I, Undergraduate, 2005-2006
Kathal Fiziği II, Undergraduate, 2005-2006
Süperilietkenler, Undergraduate Double Major, 2005-2006
X-İŞİNLARI, Undergraduate Double Major, 2005-2006
Kathal Fiziği II, Undergraduate, 2004-2005
Kathal fiziği I, Undergraduate, 2004-2005
X-İŞİNLARI, Undergraduate Double Major, 2003-2004
Süperilietkenler, Undergraduate Double Major, 2003-2004
KATIHAL FİZİĞİ, Undergraduate Double Major, 2003-2004
Kathal Fiziği II, Undergraduate, 2003-2004
Kathal fiziği I, Undergraduate, 2002-2003
Kathal Fiziği II, Undergraduate, 2002-2003
KATIHAL FİZİĞİ, Undergraduate Double Major, 2001-2002
Kathal Fiziği II, Undergraduate, 2001-2002
Kathal fiziği I, Undergraduate, 2001-2002
Süperilietkenler, Undergraduate Double Major, 2001-2002

Kathal Fiziği II, Undergraduate, 2000-2001
FAZ DÖNÜŞÜMLERİ, Undergraduate Minor, 2000-2001
X-IŞINLARI, Undergraduate Double Major, 2000-2001

Advising Theses

BALCI Y., YBCO(123) Kalın filimlerin üretimi ve karakterizasyonu, Postgraduate, E.Ortakoğlu(Student), 2012
BALCI Y., Ultrasonik Spray Pyrolysis yöntemi ile İnce/kalın MgB₂ süperiletken filmlerin hazırlanması ve karakterizasyonu, Postgraduate, K.Onar(Student), 2011
BALCI Y., Metali MgB₂ süperiletkenlerin tüp metodu ile hazırlanması ve hole katkılarının MgB₂ sisteminde oluşturacağı etkilerin incelenmesi, Postgraduate, Z.Deniz(Student), 2005
BALCI Y., YBCO Süperiletken örneklerin tüp metodu(PITM) ile hazırlanması , Cd ve Ca katkılanmasının sistem üzerine etkileri, Postgraduate, S.Alagöz(Student), 2003
BALCI Y., HgBaCaO Süperiletkenlerin sentezlenmesi ve değişik oranda Pb Katkılanmasının bu süperiletkenlerin elektriksel ve fiziksel özellikleri üzerindeki etkilerinin incelenmesi, Postgraduate, M.Doğan(Student), 2000

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effect of grain size on the electrical and magnetic properties of MgB₂ thick films deposited on the Al₂O₃ single crystal substrates**
ONAR K., BALCI Y., YAKINCI M. C.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.25, no.5, pp.2104-2110, 2014 (SCI-Expanded)
- II. **Improved superconducting properties of MgB₂ thin films fabricated by ultrasonic spray pyrolysis method at high temperature**
YAKINCI M. C., YAKINCI Z. D., AKSAN M. A., BALCI Y.
CRYOGENICS, vol.52, no.12, pp.749-754, 2012 (SCI-Expanded)
- III. **Nano-sized Spherical MgB₂ Superconducting Powder Fabrication Using MHz Range Ultrasonic Spray Pyrolysis (USP) System**
YAKINCI M. C., AKSAN M. A., BALCI Y., ALTIN S., ÖNAL Y., Aydogdu Y.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.235-239, 2011 (SCI-Expanded)
- IV. **Power Law Dependence of I-V Characteristics of Bi-2212 Whiskers at Low Magnetic Fields**
ALTIN S., ALTIN E., AKSAN M. A., BALCI Y., YAKINCI M. C.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.223-227, 2011 (SCI-Expanded)
- V. **Oxidation Behavior of Bi(Pb,Ga) SrCaCuO System**
BALCI Y., Ceylan M., AKSAN M. A., YAKINCI M. C.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.511-513, 2011 (SCI-Expanded)
- VI. **Effect of Bi deficiency on grain alignment of BiPb-2223 thin film fabricated using rf sputtering process and on critical current density properties**
AKSAN M. A., ALTIN S., YAKINCI M. C., GÜLDESTE A., BALCI Y.
MATERIALS SCIENCE AND TECHNOLOGY, vol.27, no.1, pp.314-319, 2011 (SCI-Expanded)
- VII. **Effects of In-situ and Ex-situ Heat-Treatment Procedures on the Transport Properties of the MgB₂ Superconducting Thin Films Fabricated by Ultrasonic Spray Pyrolysis (USP) System**
YAKINCI M. C., Aydogdu Y., AKSAN M. A., BALCI Y., ALTIN S.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.241-245, 2011 (SCI-Expanded)
- VIII. **Effect of Bi₂O₃ Addition on the Single-Crystal BiSrCaCuO Whisker Growth**
ALTIN S., AKSAN M. A., ALTIN E., BALCI Y., YAKINCI M. C.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.331-339, 2011 (SCI-Expanded)
- IX. **Effect of Ce substitution on superconducting properties of Bi₂Sr₂Ca₂Cu₃O_{10+delta} system**

fabricated by glass-ceramic technique

OZTURK R., AKSAN M. A., ALTIN S., YAKINCI M. C., BALCI Y.

JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.1105-1110, 2011 (SCI-Expanded)

- X. **Effects of SnO on growth and physical properties of BSCCO whiskers**
ALTIN S., AKSAN M. A., BALCI Y., YAKINCI M. C.
MATERIALS SCIENCE AND TECHNOLOGY, vol.26, no.9, pp.1125-1131, 2010 (SCI-Expanded)
- XI. **The single crystal superconducting Bi-2212 whiskers fabrication and their thermal transport properties**
ALTIN S., AKSAN M. A., YAKINCI M. C., BALCI Y.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.502, no.1, pp.16-23, 2010 (SCI-Expanded)
- XII. **Transport Properties under Magnetic Field and J(c)(H) Peak Effect on Single-Crystal Bi-2212 Whiskers**
ALTIN S., AKSAN M. A., BALCI Y., YAKINCI M. C.
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.22, no.8, pp.775-784, 2009 (SCI-Expanded)
- XIII. **The effect of Mo addition on the microstructure and J(c) properties of MgB₂ tapes fabricated by PIT method**
Bayazit E., ALTIN S., YAKINCI M. C., AKSAN M. A., BALCI Y.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.457, pp.42-46, 2008 (SCI-Expanded)
- XIV. **Structural characterization and transport properties of the HTc Bi₂Sr₂(Ca,Cd)Cu₂O₈+delta glass-ceramic rods**
Aksan M. A., ALTIN S., BALCI Y., YAKINCI M. E.
MATERIALS CHEMISTRY AND PHYSICS, vol.106, pp.428-436, 2007 (SCI-Expanded)
- XV. **Magnetoresistance properties of Co-added MgB₂ tapes prepared by PIT method**
BAYAZIT E., YAKINCI M. E., BALCI Y., AKSAN M. A.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.460, pp.610-611, 2007 (SCI-Expanded)
- XVI. **Effects of thickness on the grain alignment and J(c) properties of (Hg_{0.8}Re_{0.2})Ba₂Ca₂Cu₃O_x superconductor thick films**
YAKINCI M. E., AKSAN M. A., BALCI Y., ALTIN S.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.460, pp.1386-1387, 2007 (SCI-Expanded)
- XVII. **Fabrication and properties of superconducting single crystal cross-(micro) whiskers junction**
ALTIN S., YAKINCI M. E., AKSAN M. A., BALCI Y.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.460, pp.1337-1338, 2007 (SCI-Expanded)
- XVIII. **Effects of preparation pressure on the magnetic and I-V properties of nano Cu particles added MgB₂ tapes**
YAKINCI Z. D., BALCI Y., YAKINCI M. E., AKSAN M. A.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.460, pp.859-861, 2007 (SCI-Expanded)
- XIX. **Degradation of superconducting properties in MgB₂ by Cu addition**
AKSAN M. A., GULDESTE A., BALCI Y., YAKINCI M.
SOLID STATE COMMUNICATIONS, vol.137, no.6, pp.320-325, 2006 (SCI-Expanded)
- XX. **Thermal analysis study of Bi₂Sr₂Ca₂Cu_{3-x}Er_xO₁₀+delta glass-ceramic system**
AKSAN M. A., YAKINCI M., BALCI Y.
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.81, no.2, pp.417-423, 2005 (SCI-Expanded)
- XXI. **Fabrication and properties of (Hg_{0.8}Re_{0.2})Ba₂Ca₂Cu₃O_x superconducting thick films**
YAKINCI M., AKSAN M. A., BALCI Y.
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.18, no.4, pp.494-502, 2005 (SCI-Expanded)
- XXII. **Thermoelectric power and thermal conductivity properties in superconducting (MgB₂)(_{2-x})Cr_x materials**
YAKINCI M., BALCI Y., AKSAN M. A.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.408, pp.684-685, 2004 (SCI-Expanded)
- XXIII. **Enhanced J_c properties of MgB₂ materials processed under a magnetic field**
AKSAN M. A., YAKINCI M., BALCI Y.

- PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.408, pp.132-133, 2004 (SCI-Expanded)
- XXIV. **Effect of substrates on I-c anisotropy in thick film Bi_{1.7}Ga_{0.3}Sr₂Ca₂Cu₃O_{10+y} glass-ceramic superconductors**
YAKINCI Z., BALCI Y., YAKINCI M., Aksan M. A.
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.408, pp.900-901, 2004 (SCI-Expanded)
- XXV. **Crystallization activation energy and hole concentration properties of the Bi₂Sr₂Ca_{1-x}Cd_xCu₂O_{8+y} glass-ceramic superconductor rods**
OZHANLI Z., YAKINCI M., BALCI Y., Aksan M. A.
JOURNAL OF SUPERCONDUCTIVITY, vol.15, no.6, pp.543-547, 2002 (SCI-Expanded)
- XXVI. **Study on the physical and electrical properties of Bi_{2-delta} Zn delta Sr₂Ca₂Cu₃O_{10+y} glass-ceramic superconductors**
Aksan M. A., YAKINCI M., BALCI Y.
JOURNAL OF SUPERCONDUCTIVITY, vol.15, no.6, pp.553-558, 2002 (SCI-Expanded)
- XXVII. **Degradation of superconducting properties in MgB₂ by formation of the MgB₄ phase**
YAKINCI M., BALCI Y., Aksan M. A., ADIGUZEL H. İ., GENCER A.
JOURNAL OF SUPERCONDUCTIVITY, vol.15, no.6, pp.607-611, 2002 (SCI-Expanded)
- XXVIII. **An investigation on the activation energy and the enthalpy of the primary crystallization of glass-ceramic Bi-rich BSCCOHTc superconductors**
Balci Y., CEYLAN M., YAKINCI M.
MATERIALS SCIENCE AND ENGINEERING B-SOLID STATE MATERIALS FOR ADVANCED TECHNOLOGY, vol.86, no.1, pp.83-91, 2001 (SCI-Expanded)
- XXIX. **Synthesis and characterization of glass-ceramic Bi_{2-x}GaxSr₂Ca₂Cu₃O_{10+y} superconductors**
Aksan M. A., YAKINCI M., BALCI Y.
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.13, no.7, pp.955-963, 2000 (SCI-Expanded)
- XXX. **Thermal conductivity properties of glass-ceramic (Bi_{2-delta-gamma} Ga delta Tl gamma)Sr₂Ca₂Cu₃O_{10+x} high-T-c superconductors**
BALCI Y., YAKINCI M., Aksan M. A., OZDES A., ATES H.
JOURNAL OF LOW TEMPERATURE PHYSICS, vol.117, pp.963-967, 1999 (SCI-Expanded)
- XXXI. **In-situ single chamber arc sputtering process for YCd_{0.3}Ba₂Cu₃O_{7-delta} superconducting thin films**
YAKINCI M., BALCI Y., Aksan M. A., AYDOGDU Y., ATES H.
JOURNAL OF LOW TEMPERATURE PHYSICS, vol.117, pp.645-649, 1999 (SCI-Expanded)
- XXXII. **Thermal conductivity properties of Bi_{2-alpha} Tl alpha Sr₂Ca₂Cu₃O_{10+z} glass-ceramic HTc superconductor rods**
Aksan M. A., YAKINCI M., BALCI Y., ATES H.
JOURNAL OF LOW TEMPERATURE PHYSICS, vol.117, pp.957-961, 1999 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Normal state electronic properties under applied magnetic fields of whiskers fabricated by Bi Ga and Sb doping**
ALTIN S., AKSAN M. A., BALCI Y., ALTIN E., YAKINCI M. E.
2 nd International Conference On Superconductivity and Magnetism Antalya, Turkey, 2010, 28 - 30 May 2010
- II. **Power Law Dependences on I V of Bi 212 Whiskers at Low Magnetic fields**
ALTIN S., AKSAN M. A., BALCI Y., ALTIN E., YAKINCI M. E.
2 nd International Conference On Superconductivity and Magnetism Antalya, Turkey, 2010, 28 - 30 May 2010
- III. **Magnetoresistance properties of MgB₂ thick films on YSZ substrate using spray pyrolysis method**
ALTIN S., AKSAN M. A., YAKINCI Z. D., Oezabaci M., BALCI Y., YAKINCI M. C.
International Conference on Superconductivity and Magnetism (ICSM), Side, Turkey, 25 - 29 August 2008, vol.153
- IV. **Pinning Properties of Bi-2212 Single Crystal Whiskers**
ALTIN S., AKSAN M. A., BALCI Y., YAKINCI M. C.

International Conference on Superconductivity and Magnetism (ICSM), Side, Turkey, 25 - 29 August 2008, vol.153

- V. **Çökeltme Yöntemi Kullanılarak MgB₂ Kalın Filmlerin Hazırlanması ve Karakterizasyonu**
YAKINCI Z. D., ALTIN E., türk n., ALTIN S., ÖZABACI M., AKSAN M. A., BALCI Y., YAKINCI M. E.
II. Ulusal Bor Çalıştayı, Ankara, 2008, Turkey, 20 - 22 June 2008
- VI. **Dip Coating Yöntemi ile Şerit MgB₂ Süperiletkenlerin Eldesi ve Karakterizasyonu**
ÖZABACI M., ALTIN S., gülşah K., YAKINCI Z. D., ALTIN E., AKSAN M. A., BALCI Y., YAKINCI M. E.
II. Ulusal Bor Çalıştayı, Ankara, 2008, Turkey, 13 - 15 June 2008
- VII. **Magnetoresistance properties of Co added MgB₂ tapes prepared by PIT method**
ALTIN E., BALCI Y., AKSAN M. A., YAKINCI M. E.
8th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors, Dresden (Germany), 9 - 14 July 2006
- VIII. **Co Katkılı MgB₂ Süperiletken Sistem**
ALTIN E., BALCI Y., AKSAN M. A., YAKINCI M. E.
III. Ulusal Yüksek Sıcaklık Süperiletkenler Sempozyumu, BOLU, Turkey, 20 - 22 June 2005

Metrics

Publication: 40

Citation (WoS): 238

Citation (Scopus): 210

H-Index (WoS): 8

H-Index (Scopus): 8