

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

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

Katılım 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 katkılamalarının MgB₂ sisteminde oluşturacağı etkilerin incelenmesi, Postgraduate, Z.Deniz(Student), 2005
- BALCI Y., YBCO Süperiletken örneklerin tüp metodu(PITM) ile hazırlanması , Cd ve Ca katkılamanın sistem üzerine etkileri, Postgraduate, S.Alagöz(Student), 2003
- BALCI Y., HgBaCaO Süperiletkenlerin sentezlenmesi ve değişik oranda Pb Katkılarının 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)Cu₂O_{8+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_xO_{10+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.

- PHYSCA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.408, pp.132-133, 2004 (SCI-Expanded)
- XXIV. Effect of substrates on I-c anisotropy in thick film $\text{Bi}_{1.7}\text{Ga}_{0.3}\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+y}$ glass-ceramic superconductors
YAKINCI Z., BALCI Y., YAKINCI M., Aksan M. A.
PHYSCA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.408, pp.900-901, 2004 (SCI-Expanded)
- XXV. Crystallization activation energy and hole concentration properties of the $\text{Bi}_2\text{Sr}_2\text{Ca}_{1-x}\text{Cd}_x\text{Cu}_2\text{O}_{8+y}$ 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 $\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+y}$ 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 MgB_2 by formation of the MgB_4 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 $\text{Bi}_{2-x}\text{GaxSr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+y}$ 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) $\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}$ high-Tc 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 $\text{YCd}_{0.3}\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ superconducting thin films
YAKINCI M., BALCI Y., Aksan M. A., AYDOĞDU 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 $\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+z}$ 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 MgB_2 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. **Çökelme Yöntemi Kullanılarak MgB₂ Kalın Filmlerin Hazırlanması ve Karakterizasyonu**
YAKINCI Z. D., ALTIN E., türk n., ALTIN S., ÖZABACI M., AKSAN M. A., BALCİ Y., YAKINCI M. E.
II. Ulusal Bor Çalıştayı, Ankara, 2008, Turkey, 20 - 22 June 2008
- VI. **Dip Coating Yöntemi İle Şerit MgB₂ Süperiletkenlerin Eldesi ve Karakterizasyonu**
ÖZABACI M., ALTIN S., gülşah K., YAKINCI Z. D., ALTIN E., AKSAN M. A., BALCİ 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., BALCİ 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., BALCİ 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
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