

# Prof. İDRİS KABALCI

## Personal Information

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## Education Information

Doctorate, İstanbul Teknik Üniversitesi, Türkiye Coğrafyası, Fizik Mühendisliği (Dr), Turkey 1998 - 2006

Post Graduate, Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 1994 - 1997

## Dissertations

Doctorate, Florotelürit optik camların termal mikroyapısal ve spektroskopik özellikleri, İstanbul Teknik Üniversitesi, Türkiye Coğrafyası, Fizik Mühendisliği (Dr), 2006

Post Graduate, Moleküler orbital teori ve bunun bazı organik moleküllere uygulanması, Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 1997

## Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Optical Properties, Spectroscopy of Matter, Natural Sciences

## Academic Titles / Tasks

Professor, Karabük Üniversitesi, Mühendislik Fakültesi, Biyomedikal Mühendisliği Bölümü, 2017 - Continues

Associate Professor, Karabük Üniversitesi, Mühendislik Fakültesi, Biyomedikal Mühendisliği Bölümü, 2014 - Continues

Associate Professor, South China University Of Technology, Malzeme Bilimi Ve Mühendislik Fakültesi, Malzeme Mühendisliği, 2015 - 2016

Associate Professor, Harran Üniversitesi, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2012 - 2014

Assistant Professor, University Of Southampton, Optoelectronic Researches Center, Fizik, 2010 - 2011

Assistant Professor, Harran Üniversitesi, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2008 - 2010

Research Assistant, Szeged Üniversitesi, Fen Fakültesi, Fizik, 2006 - 2007

Research Assistant, Harran Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 1993 - 1998

## Professional Experience

Director of Vocational School, Karabük Üniversitesi, Eskipazar Meslek Yüksekokulu, 2017 - Continues

Head of Department, Karabük Üniversitesi, Mühendislik Fakültesi, Biyomedikal Mühendisliği Bölümü, 2015 - Continues

Head of Department, Harran Üniversitesi, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2014 - 2014

University Executive Board Member, Harran Üniversitesi, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 2009 - 2010

## Courses

Biyomedikal Optik, Post Graduate, 2017 - 2018

Biyomedikal bilimler için Temel Matematik, Post Graduate, 2017 - 2018

Reading and Speaking in Foreign Language, Under Graduate, 2017 - 2018

Fizik 1, Under Graduate, 2017 - 2018

GENEL FİZİK, Under Graduate, 2016 - 2017

## Advising Theses

KABALCI İ., Tulyum iyonu katkılı üçlü telürit esaslı fotonik camların spektroskopik ve mikroyapısal özellikleri, Post Graduate, T.DURAN(Student), 2011

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Mechanical, Structural and Thermal Properties of Transparent Bi<sub>2</sub>O<sub>3</sub>-Al<sub>2</sub>O<sub>3</sub>-ZnO-TeO<sub>2</sub> Glass System**  
KABALCI İ., KOÇ E., Ozturk S. S.  
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.27, pp.788-794, 2017 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Tulyum katkılı florotelürit optik camların, termal, mikroyapısal ve spektroskopik özellikleri**  
KABALCI İ., Özen G., Sennaroğlu A.  
ITU Fen Bilimleri Dergisi/c, vol.4, pp.41-49, 2020 (Other Refereed National Journals)
- II. **INDOOR POSITIONING AND FALL DETECTION SYSTEM DESIGN FOR PEOPLE WITH ALZHEIMER'S AND EPILEPSY DISEASE**  
Duru A., İleri K., Kabalci İ.  
International Journal of Advances in Science Engineering and Technology, vol.6, pp.48-51, 2018 (Journal Indexed in ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Ultra-Wideband positioning system using TWR and lateration methods**  
DURU A., ŞEHİRLİ E., KABALCI İ.  
4th International Conference on Engineering and MIS, ICEMIS 2018, İstanbul, Turkey, 19 - 20 June 2018
- II. **Soft Glasses Doped with rare earth Ions and Indirect Excitation Mediated by the Host,, Istanbul, Turkey, Oct. 22-25, 2017.**  
Basinova N., Zavadi J., KABALCI İ., Gladkov P., Kostka P.  
International Commission on Glass (ICG 2017), 22 - 25 October 2017
- III. **I.Kabalci, Complementary methods for optical, structural and mechanical analysis of rare earth ion (Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>) doped B<sub>2</sub>O<sub>3</sub>-ZnO-TiO<sub>2</sub> glasses,, Guangzhou, China, May 23-25, 2017.**  
KABALCI İ.  
Global Conference on polymer and Composite Materials, 23 - 25 May 2017
- IV. **Spectroscopic properties and low temperature PL of Tm<sub>3</sub> doped TeO<sub>2</sub> ZnO TiO<sub>2</sub> glasses**  
KABALCI İ., TAY T., Kostka P., Zavadil J., Gladkov P.  
24th international congress on glass, 7 - 11 April 2016
- V. **Mechanical, Optical and Microstructural Properties of Bi<sub>2</sub>O<sub>3</sub>-ZnO-TeO<sub>2</sub> Glasses**

KABALCI İ., Zheng J., Wang L., Peng M.

24th International Congress on Glass (ICG 2016), Şangay, China, 7 - 11 April 2016

- VI. **Er<sup>3+</sup> doped chalcogenide glasses and sputtered thin films: structural and spectroscopic characterization**  
KABALCI İ., Hewak D. W.  
5th International Symposium on Next-Generation Electronics (ISNE), Hsinchu, Taiwan, 4 - 06 May 2016
- VII. **Effect of glass compositions on the thermal and microstructural properties of TeO<sub>2</sub> ZnO TiO<sub>2</sub> glass systems**  
KABALCI İ., Nese O. K. , POLAT R.  
The third International Symposium on Innovative Technologies in Engineering and Science, 3 - 05 June 2015
- VIII. **Comparing the Effect of the Thulium, Erbium and Ytterbium Ion Concentrations on the Absorption Spectra on Tellurium and Borate Based Glasses**  
KABALCI İ., TAY T., Kostka P., Zavadil J., Gladkov P.  
Lighting UP Africa with lasers, optics, and fibres (LUPA), Tunus, Tunisia, 15 - 20 March 2015
- IX. **Effect of the heating rates on the thermal properties of the zinc borate glass**  
KABALCI İ., Nese O. K. , serife Y., Yıldız S., POLAT R.  
The Second International Iron and Steel Symposium, Karabük, Turkey, 1 - 03 April 2015
- X. **Thermal analysis and linear optical properties of (1-x)TeO<sub>2</sub>-(x)ZnCl<sub>2</sub> optical glasses for photonic applications**  
KABALCI İ., ÖZTÜRK KÖRPE N., POLAT R.  
International Symposium on Next-Generation Electronics (ISNE 2015), Taipei, Taiwan, 4 - 06 May 2015
- XI. **Photoluminescence properties at low temperature of Tm<sup>3</sup> doped tellurite based optical glasses**  
KABALCI İ., TAY T., Kostka P., Zavadil J., Gladkov P.  
Development in Optics and Communications in Spectroscopy, Industry and Medicine, Riga, Latvia, 9 - 12 April 2014
- XII. **Investigation of infrared and raman spectra TeO<sub>2</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub> Glasses**  
KABALCI İ., Gökçe H.  
XLVIII Zakopane School of Physics, Zakopane, Poland, 20 - 25 May 2013
- XIII. **Luminescence and Optical Properties of Tm<sup>3</sup> doped TeO<sub>2</sub>-ZnO-TiO<sub>2</sub> Glasses for Fiber Optic Applications**  
KABALCI İ., TAY T., Özdemir M., Özen G.  
Luminesans Dozimetri Kongresi 4, Gaziantep, Turkey, 20 - 22 September 2010
- XIV. **Optical properties and crystallization kinetics of TeO<sub>2</sub>-ZnO-TiO<sub>2</sub> glasses**  
KABALCI İ., ÖZTÜRK KÖRPE N., Duran T., Özdemir M.  
International Conference on Optical and Optoelectronic Properties of Materials and Applications, Budapest, Hungary, 15 - 20 August 2010
- XV. **Optical absorption and spectroscopic properties of thulium doped TeO<sub>2</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub> glasses**  
KABALCI İ., TAY T., Özen G.  
International Conference on Optical and Optoelectronic Properties of Materials and Applications, Budapest, Hungary, 15 - 20 August 2010
- XVI. **Thermal, optical properties and structural investigation of Tm<sup>3</sup> doped TeO<sub>2</sub>-ZnO-TiO<sub>2</sub> glassy system**  
KABALCI İ., ÖZTÜRK KÖRPE N., Duran T., Özdemir M., TAY T., Özen G.  
Mesoscopic physics in complex media, Corsica, France, 12 - 16 July 2010
- XVII. **Preparation of Co, Mn, Nd doped SiO<sub>2</sub> thin films and investigation the microstructural properties, (2010) 1203, 217.**  
Hoçcan M., Uluadaoğlu E., Kandemirli F., KABALCI İ.  
AIP Conf. Proc., 1 - 03 February 2010, vol.217, pp.1-7
- XVIII. **Physical and Microstructural investigation of Tm<sup>3</sup> doped TeO<sub>2</sub>-ZnO-TiO<sub>2</sub> optical glasses**  
KABALCI İ., Gökçe H., Öveçoğlu M. L.  
16.Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 06 November 2009
- XIX. **Optical and Microstructural properties of Tm<sup>3</sup> doped TeO<sub>2</sub>-ZnO-TiO<sub>2</sub> glasses**  
KABALCI İ.

13. Sıvihal Fiziği Sempozyumu, Turkey, 26 - 28 October 2009
- XX. **TeO<sub>2</sub>-ZnCl<sub>2</sub> Fotonik camlarının optik ve mikroyapısal özellikleri**  
KABALCI İ.  
MYOMAT 2009, Anadolu Üniversitesi, Fizik Bölümü, Turkey, 15 - 16 June 2009
- XXI. **Preparation and optical characterization of N-doped TiO<sub>2</sub> thin films by PLD**  
KABALCI İ., Farkash B., Budai J., Heszler P., Geretovzky Z.  
4. Ulusal Nanobilim ve Nanoteknoloji Konferansı (NanoTr4), Turkey, 9 - 13 June 2008
- XXII. **Optical characterization of PLD grown nitrogen-doped TiO<sub>2</sub> thin films**  
Farkash B., Heszler P., KABALCI İ., Budai J., Geretovzky Z.  
E-MRS, Strasbourg, France, 28 May - 01 June 2007
- XXIII. **Characterization of thermal and microstructural properties of the TeO<sub>2</sub>-Nb<sub>2</sub>O<sub>5</sub> glasses**  
Gökçe H., KABALCI İ., Öveçoğlu M. L., Özen G.  
11th International Materials Symposium, Denizli, Turkey, 19 - 20 April 2006
- XXIV. **Radiative lifetime and Quantum efficiency of Tm<sup>3</sup> -doped TeO<sub>2</sub> -PbF<sub>2</sub> glasses**  
KABALCI İ., Özen G., Sennaroğlu A.  
IX. ULUSAL SIVIHAL FİZİĞİ SEMPOZYUMU, Turkey, 22 - 25 September 2005
- XXV. **Thermal analysis and microstructural characterization of (1-x)TeO<sub>2</sub>-xPbF<sub>2</sub> glasses**  
KABALCI İ., Özen G., Öveçoğlu M. L.  
23th International Physics Congress, Turkish Physical Society, 13 - 16 September 2005
- XXVI. **Luminescence properties and thermal analysis of Tm<sup>3</sup>: TeO<sub>2</sub>-PbF<sub>2</sub> glasses**  
KABALCI İ., Özen G., Öveçoğlu M. L., Kurt A., DEMİRBAŞ Ü., Sennaroğlu A.  
NATO ASI, Scottish University Summer School in Physics St Andrews, (Poster presentation), St Andrews, İngiltere, 14 - 26 August 2005
- XXVII. **Effect of the composition on spectroscopic and structure of Tm<sup>3</sup>:TeO<sub>2</sub>-PbF<sub>2</sub> glasses**  
KABALCI İ., Öveçoğlu M. L., Sennaroğlu A., Özen G.  
22nd Course: New developments in optics and related fields, 6 - 21 June 2005
- XXVIII. **Effect of the local structure on the spontaneous and stimulated emission probabilities of Tm<sup>3</sup> in TeO<sub>2</sub>-ZnO glass**  
Özen G., KABALCI İ., Sennaroğlu A., Kurt A., Collins J., Chen X., Forte O., DiBartolo B.  
MRS (Material Research Symposium), Boston, United States Of America, 1 - 03 December 2004, vol.848
- XXIX. **Composition dependence of the intensity parameters in TeO<sub>2</sub>-PbF<sub>2</sub>: Tm<sup>3</sup> glasses**  
KABALCI İ., Özen G., Kurt A., Sennaroğlu A.  
MRS (Material Research Symposium), Boston, United States Of America, 1 - 03 December 2004, vol.829
- XXX. **Structural properties and crystallization kinetics of TeO<sub>2</sub>-PbF<sub>2</sub> glass**  
KABALCI İ., Özen G., Öveçoğlu M. L.  
VIII. ULUSAL SIVIHAL FİZİĞİ SEMPOZYUMU, Turkey, 24 - 26 September 2004
- XXXI. **Tm<sup>3</sup> Katkılı (1-x) TeO<sub>2</sub>-(x)PbF<sub>2</sub> Camlarının Yakın-Kızılaltı Bölgesindeki Spektroskopik Özellikleri**  
KABALCI İ., Özen G., Kurt A., DEMİRBAŞ Ü., Sennaroğlu A.  
5th Turkish Workshop on Electro-Optics and Photonics, Middle East Technical University (METU), Turkey, 12 December 2003
- XXXII. **Preparation and characterization of TeO<sub>2</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub> glasses**  
KABALCI İ., Gökçe H., Özen G., Öveçoğlu M. L.  
Advanced Laser Technologies 2008, Siofok, Hungary, 13 September 2008 - 18 September 2003
- XXXIII. **Spectroscopic properties of Tm<sup>3</sup>: TeO<sub>2</sub>-PbF<sub>2</sub> glasses in the near infrared**  
KABALCI İ., Özen G., Kurt A., DEMİRBAŞ Ü., Sennaroğlu A.  
SPIE, 5 - 08 September 2003, vol.5460, pp.195-203
- XXXIV. **Advances in Quantum Optics and Spectroscopy of Solids**  
KABALCI İ.  
Bilkent Üniversitesi, Ankara, Turkey, 2 - 05 July 1995

## Supported Projects

KABALCI İ., Project Supported by Higher Education Institutions, Laterasyon Methodlarını Kullanarak Ultra-Wide Band Tabanlı Kapalı Alan Konumlandırma Sistemi, 2017 - 2018

KABALCI İ., Project Supported by Higher Education Institutions, Complementary methods for optical, structural and mechanical analysis of rare-earth ions (Er<sup>2</sup>O<sub>3</sub>, Tm<sup>2</sup>O<sub>3</sub>) doped B<sub>2</sub>O<sub>3</sub>-ZnO-TiO<sub>2</sub> glasses, 2017 - 2017

KABALCI İ., Project Supported by Higher Education Institutions, SPEKTROFOTOMETRENİN DENEYSEL UYGULAMALARI, 2017 - 2017

KABALCI İ., Project Supported by Higher Education Institutions, TEMEL ELEKTROKARDİYOGRAM DEVRE TASARIMI VE SİNYAL ANALİZİ, 2017 - 2017

KABALCI İ., Project Supported by Higher Education Institutions, FİBER OPTİK HABERLEŞMEDE DALGALARA AYRILMIŞ ÇOĞULLAMA (WDM) TEKNOLOJİSİ, 2017 - 2017

KABALCI İ., Project Supported by Higher Education Institutions, Er<sup>3+</sup> doped chalcogenide glasses and sputtered thin films: structural and spectroscopic characterization, 2016 - 2017

KABALCI İ., Project Supported by Higher Education Institutions, Bor telürit esaslı optik cam malzemelerinin mikroyapısal, ısıl ve optik özellikleri, 2015 - 2016