

## Prof. ENVER BULUR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: J-6320-2013

ScopusID: 7003860352

Yoksis Researcher ID: 19578

### Education Information

Doctorate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1990 - 1998

Postgraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1987 - 1990

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1981 - 1987

### Research Areas

Physics, Interdisciplinary Physics and Related Science and Technology Areas, Electronic and magnetic devices, microelectronics, Materials Science, General Physics, Measurement Science, General Laboratory Techniques, and Metrology, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Magnetic Properties and Materials, Optical Properties, Spectroscopy of Matter, Natural Sciences

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2013 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2009 - 2013

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2004 - 2009

Assistant Professor, Oklahoma State University, Physics, 2002 - 2004

Lecturer PhD, Technische Universitaet Darmstadt, Materials Science, Mawi, 2001 - 2002

Expert, Riso National Laboratory, Radiation Research, 1999 - 2001

Expert, GSF Forschungszentrum (Helmholtz Zentrum-München), Institute für Strahlenschutz, ISAR, 1996 - 1999

Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1988 - 1996

### Courses

Modern Physics, Undergraduate, 2019 - 2020

Analog Electronics, Undergraduate, 2019 - 2020

## Research Infrastructure Information

Bulur E., Iflazoğlu S., Thermally and Optically Stimulated Luminescence Laboratory (TOSL), January 2005

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Structural, photo, optical and thermal luminescent properties of beta barium metaborate**  
Ifiazoglu S., Yilmaz A., Bulur E.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.829, 2020 (SCI-Expanded)
- II. **Afterglow, TL and OSL properties of Mn<sup>2+</sup>-doped ZnGa<sub>2</sub>O<sub>4</sub> phosphor**  
Luchechko A., Zhydachevskyy Y., Ubizskii S., Kravets O., Popov A. I., Rogulis U., Elsts E., BULUR E., Suchocki A.  
SCIENTIFIC REPORTS, vol.9, 2019 (SCI-Expanded)
- III. **Optically stimulated luminescence characteristics of BeO nanoparticles synthesized by sol-gel method**  
ALTUNAL V., YEĞİNGİL Z., TÜKEN T., Depci T., ÖZDEMİR A. C., Guckan V., Nur N., Kurt K., BULUR E.  
RADIATION MEASUREMENTS, vol.118, pp.54-66, 2018 (SCI-Expanded)
- IV. **TL and OSL properties of Mn<sup>2+</sup>-doped MgGa<sub>2</sub>O<sub>4</sub> phosphor**  
LUCHECHKO A., ZHYDACHEVSKYY Y., MARABA D., BULUR E., UBIZSKII S., KRAVETS O.  
OPTICAL MATERIALS, vol.78, pp.502-507, 2018 (SCI-Expanded)
- V. **Design and construction of an automated OSL reader with open source software and hardware**  
MARABA D., BULUR E.  
RADIATION MEASUREMENTS, vol.106, pp.632-637, 2017 (SCI-Expanded)
- VI. **Photo-transferred thermoluminescence of shallow traps in beta-irradiated BeO ceramics**  
Isik M., BULUR E., Gasanly N.  
JOURNAL OF LUMINESCENCE, vol.187, pp.290-294, 2017 (SCI-Expanded)
- VII. **Time-resolved OSL studies of YAlO<sub>3</sub>:Mn<sup>2+</sup> crystals**  
Zhydachevskii Y., LUCHECHKO A., MARABA D., MARTYNYUK N., GLOWACKI M., BULUR E., UBIZSKII S., BERKOWSKI M., SUCHOCKI A.  
RADIATION MEASUREMENTS, vol.94, pp.18-22, 2016 (SCI-Expanded)
- VIII. **Plasma Generation in a Gas Discharge System With Irradiated Porous Zeolite**  
Ozturk S., Ozner M., BULUR E., Salamov B. G.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.43, no.6, pp.1839-1844, 2015 (SCI-Expanded)
- IX. **Low temperature thermoluminescence of quaternary thallium sulfide Tl<sub>4</sub>InGa<sub>3</sub>S<sub>8</sub>**  
DELÍCE S., Isik M., BULUR E., Gasanly N.  
INDIAN JOURNAL OF PHYSICS, vol.89, no.6, pp.571-576, 2015 (SCI-Expanded)
- X. **Thermoluminescence in gallium sulfide crystals: an unusual heating rate dependence**  
DELÍCE S., BULUR E., Gasanly N.  
PHILOSOPHICAL MAGAZINE, vol.95, no.9, pp.998-1006, 2015 (SCI-Expanded)
- XI. **Anomalous heating rate dependence of thermoluminescence in Tl<sub>2</sub>GaInS<sub>4</sub> single crystals**  
DELÍCE S., BULUR E., Gasanly N.  
JOURNAL OF MATERIALS SCIENCE, vol.49, no.24, pp.8294-8300, 2014 (SCI-Expanded)
- XII. **More on the TR-OSL signal from BeO ceramics**  
Bulur E.  
RADIATION MEASUREMENTS, vol.66, pp.12-20, 2014 (SCI-Expanded)
- XIII. **Time-resolved OSL of natural zircon: A preliminary study**  
BULUR E., KARTAL E., Sarac B. E.  
RADIATION MEASUREMENTS, vol.60, pp.46-52, 2014 (SCI-Expanded)
- XIV. **TL and TSC studies on TlGaSe<sub>2</sub> layered single crystals**  
Isik M., BULUR E., Gasanly N.  
JOURNAL OF LUMINESCENCE, vol.144, pp.163-168, 2013 (SCI-Expanded)

- XV. **Time-resolved OSL studies on BeO ceramics**  
BULUR E., Sarac B. E.  
RADIATION MEASUREMENTS, vol.59, pp.129-138, 2013 (SCI-Expanded)
- XVI. **Thermoluminescence properties of Tl<sub>2</sub>Ga<sub>2</sub>S<sub>3</sub>Se layered single crystals**  
DELÍCE S., Isik M., BULUR E., Gasanly N.  
JOURNAL OF APPLIED PHYSICS, vol.113, no.19, 2013 (SCI-Expanded)
- XVII. **Low-temperature thermoluminescence in TlGaS<sub>2</sub> layered single crystals**  
Isik M., BULUR E., Gasanly N.  
JOURNAL OF LUMINESCENCE, vol.135, pp.60-65, 2013 (SCI-Expanded)
- XVIII. **Low-temperature thermoluminescence in layered structured Ga<sub>0.75</sub>In<sub>0.25</sub>Se single crystals**  
Isik M., BULUR E., Gasanly N.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.545, pp.153-156, 2012 (SCI-Expanded)
- XIX. **Optically stimulated luminescence from BeO ceramics: An LM-OSL study**  
BULUR E., YELTİK A.  
RADIATION MEASUREMENTS, vol.45, no.1, pp.29-34, 2010 (SCI-Expanded)
- XX. **PRELIMINARY OSL STUDIES ON BEIGE SEPIOLITES**  
Bulur E.  
RADIATION PROTECTION DOSIMETRY, vol.131, no.3, pp.390-393, 2008 (SCI-Expanded)
- XXI. **Photo-transferred luminescence from BeO ceramics**  
Bulur E.  
RADIATION MEASUREMENTS, vol.42, no.3, pp.334-340, 2007 (SCI-Expanded)
- XXII. **Experimental determination of the dose deposition profile of a Sr-90 beta source**  
GAZA R., Bulur E., McKeever S. W. S., Soares C. G.  
RADIATION PROTECTION DOSIMETRY, vol.120, pp.33-37, 2006 (SCI-Expanded)
- XXIII. **An optical fiber radiation sensor for remote detection of radiological materials**  
Klein D., Yukihara E., Bulur E., Durham J., Akselrod M., McKeever S.  
IEEE SENSORS JOURNAL, vol.5, no.4, pp.581-588, 2005 (SCI-Expanded)
- XXIV. **Recent advances in dosimetry using the optically stimulated luminescence of Al<sub>2</sub>O<sub>3</sub> : C**  
MCKEEVER S., BLAIR M., Bulur E., Gaza R., Gaza R., KALCHGRUBER R., KLEIN D., YUKIHARA E.  
RADIATION PROTECTION DOSIMETRY, vol.109, no.4, pp.269-276, 2004 (SCI-Expanded)
- XXV. **Photo-stimulated luminescence of calcium co-doped BaFBr : Eu<sup>2+</sup> x-ray storage phosphors**  
SCHLAPP M., Bulur E., VON SEGGERN H.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.36, no.2, pp.103-108, 2003 (SCI-Expanded)
- XXVI. **ENHANCEMENTS IN LUMINESCENCE MEASUREMENTTECHNIQUES**  
Botter-Jensen L., Bulur E., Murray A., Poolton N.  
RADIATION PROTECTION DOSIMETRY, vol.101, no.1-4, pp.119-124, 2002 (SCI-Expanded)
- XXVII. **Electrons in feldspar I: on the wavefunction of electrons trapped at simple lattice defects**  
POOLTON N., Wallinga J., MURRAY A., Bulur E., Botter-Jensen L.  
PHYSICS AND CHEMISTRY OF MINERALS, vol.29, no.3, pp.210-216, 2002 (SCI-Expanded)
- XXVIII. **LM-OSL from single grains of quartz: A preliminary study**  
Bulur E., Duller G., SOLONGO S., Bøtter-Jensen L., Murray A.  
Radiation Measurements, vol.35, no.1, pp.79-85, 2002 (SCI-Expanded)
- XXIX. **A multi-spectroscopic study of luminescence sensitivity changes in natural quartz induced by high-temperature annealing**  
SCHILLES T., POOLTON N., Bulur E., Botter-Jensen L., MURRAY A., Smith G., RIEDI P., WAGNER G.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.34, no.5, pp.722-731, 2001 (SCI-Expanded)
- XXX. **LM-OSL signals from some insulators: An analysis of the dependency of the detrapping probability on stimulation light intensity**  
Bulur E., Bøtter-Jensen L., Murray A.  
Radiation Measurements, vol.33, no.5, pp.715-719, 2001 (SCI-Expanded)
- XXXI. **Frequency modulated pulsed stimulation in optically stimulated luminescence**

- Bulur E., Bøtter-Jensen L., Murray A.  
Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, vol.179, no.1, pp.151-159, 2001 (SCI-Expanded)
- XXXII. **An automated system for the analysis of variable temperature radioluminescence**  
Poolton N., Bulur E., Wallinga J., Botter-Jensen L., Murray A., WILLUMSEN F.  
Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, vol.179, no.4, pp.575-584, 2001 (SCI-Expanded)
- XXXIII. **Advances in luminescence instrument systems**  
Bøtter-Jensen L., Bulur E., Duller G., Murray A.  
Radiation Measurements, vol.32, no.5, pp.523-528, 2000 (SCI-Expanded)
- XXXIV. **Use of the LM-OSL technique for the detection of partial bleaching in quartz**  
Agersnap Larsen N., Bulur E., Bøtter-Jensen L., McKeever S.  
Radiation Measurements, vol.32, no.5, pp.419-425, 2000 (SCI-Expanded)
- XXXV. **Optically stimulated luminescence from quartz measured using the linear modulation technique**  
Bulur E., Bøtter-Jensen L., Murray A.  
Radiation Measurements, vol.32, no.5, pp.407-411, 2000 (SCI-Expanded)
- XXXVI. **Luminescence sensitivity changes in natural quartz induced by high temperature annealing: a high frequency EPR and OSL study**  
Poolton N., SMITH G., RIEDI P., Bulur E., Botter-Jensen L., MURRAY A., ADRIAN M.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.33, no.8, pp.1007-1017, 2000 (SCI-Expanded)
- XXXVII. **Simple transformation for converting CW-OSL curves to LM-OSL curves**  
Bulur E.  
Radiation Measurements, vol.32, no.2, pp.141-145, 2000 (SCI-Expanded)
- XXXVIII. **Beta Dosimetry Using Thin Layer a Al<sub>2</sub>O<sub>3</sub> C TL Detectors**  
GÖKSU H. Y., BULUR E., WAHL W.  
Radiation Protection Dosimetry, vol.84, pp.451-455, 1999 (SCI-Expanded)
- XXXIX. **Phototransferred thermoluminescence from  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>:C using blue light emitting diodes**  
Bulur E., Göksu H.  
Radiation Measurements, vol.30, no.2, pp.203-206, 1999 (SCI-Expanded)
- XL. **Infrared (IR) stimulated luminescence from feldspars with linearly increasing excitation light intensity**  
Bulur E., Göksu H.  
Radiation Measurements, vol.30, no.4, pp.505-512, 1999 (SCI-Expanded)
- XLI. **Characteristic features of an ionization system with semiconducting cathode**  
Salamov B., Altindal Ş., Özer M., Colakoglu K., Bulur E.  
EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, vol.2, no.3, pp.267-273, 1998 (SCI-Expanded)
- XLII. **Infrared (IR) stimulated luminescence from  $\alpha$  - Al<sub>2</sub>O<sub>3</sub>:C**  
Bulur E., Göksu H., WAHL W.  
Radiation Measurements, vol.29, no.6, pp.625-638, 1998 (SCI-Expanded)
- XLIII. **OSL from BeO ceramics: New observations from an old material**  
Bulur E., Göksu H.  
Radiation Measurements, vol.29, no.6, pp.639-650, 1998 (SCI-Expanded)
- XLIV. **The rapid visualization of resistivity inhomogeneities in high-resistivity semiconductor films**  
Salamov B., Civi M., Altindal S., Kasap M., Bulur E.  
JOURNAL OF INFORMATION RECORDING, vol.23, no.5, pp.437-445, 1997 (SCI-Expanded)
- XLV. **IR stimulated luminescence from ZnS and SrS based storage phosphors A re examination with linear modulation technique**  
BULUR E., GÖKSU H. Y.  
Physica Status Solidi A-Applications And Materials Science, vol.161, pp.9-10, 1997 (SCI-Expanded)
- XLVI. **Pulsed optically stimulated luminescence from  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>:C using green light emitting diodes**  
Bulur E., Göksu H.

- Radiation Measurements, vol.27, no.3, pp.479-488, 1997 (SCI-Expanded)
- XLVII. **Computer analysis of pendulum motion: An alternative way of collecting experimental data**  
Bulur E., Anilturk S., Özer A.  
AMERICAN JOURNAL OF PHYSICS, vol.64, no.10, pp.1333-1337, 1996 (SCI-Expanded)
- XLVIII. **Thermoluminescence properties of fluorescent materials used in commercial lamps**  
Bulur E., Goksu H., Wieser A., Figel M., Ozer A.  
RADIATION PROTECTION DOSIMETRY, vol.65, no.1-4, pp.373-379, 1996 (SCI-Expanded)
- XLIX. **An alternative technique for optically stimulated luminescence (OSL) experiment**  
Bulur E.  
Radiation Measurements, vol.26, no.5, pp.701-709, 1996 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Detection of gamma irradiated spices with OSL method and its reliability**  
AYGÜN Ş. G., BOZOĞLU T. F., BULUR E.  
Natural Science and Discovery, vol.2, pp.11-19, 2016 (Peer-Reviewed Journal)
- II. **Effect of Illumination Temperature on Thermally Stimulated Current Spectrum of TlInS<sub>2</sub>**  
Özdemir S., Suleymanov R., Bucurgat M., Bulur E.  
TURKISH JOURNAL OF PHYSICS, vol.23, pp.1013-1022, 1999 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Systematic development of an OSL dosimeter based on BeO**  
ALTUNAL V., Güçkan V., Özdemir A., BULUR E., YEĞİNGİL Z.  
5th International Conference on Materials Science and Nanotechnology for Next Generation (MSNG-2018), Nevşehir, Turkey, 4 - 06 October 2018
- II. **OSL properties of BeO:Al Ceramics**  
ALTUNAL V., Özdemir A., Güçkan V., BULUR E., YEĞİNGİL Z.  
11th International Conferences on Luminescence and ESR Dosimetry (LUMIDOZ11), Gaziantep, Turkey, 5 - 07 September 2018
- III. **Optically Stimulated Luminescence (OSL) from BeO:Al,Ca Ceramics Synthesized via Sol-Gel Method**  
ALTUNAL V., Güçkan V., Özdemir A., BULUR E., YEĞİNGİL Z.  
11th International Conferences on Luminescence and ESR Dosimetry (LUMIDOZ11), Gaziantep, Turkey, 5 - 07 September 2018
- IV. **Luminescence properties of Calcium doped BeO Ceramics**  
Özdemir A., ALTUNAL V., Güçkan V., BULUR E., YEĞİNGİL Z.  
11th International Conferences on Luminescence and ESR Dosimetry (LUMIDOZ11), Gaziantep, Turkey, 5 - 07 September 2018
- V. **Studies of Mn<sup>2+</sup>-doped MgGa<sub>2</sub>O<sub>4</sub> phosphor for TL and OSL dosimetry**  
LUCHECHKO A., ZHYDACHEVSKYY Y., MARABA D., UBİZSKİİ S., BULUR E., KRAVETS O.  
PS-IWASOM'xx2017, 9 - 14 July 2017
- VI. **Unusual heating rate dependence of thermoluminescence glow peaks of GaS single crystals.**  
DELİCE S., HASANLI N., BULUR E.  
17th International Balkan Workshop on Applied Physics and Materials Science, 11 - 14 July 2017
- VII. **Pulsed OSL readout of detectors based on YAl<sub>3</sub>:Mn crystals**  
ZHYDACHEVSKYY Y., LUCHECHKO A., MARABA D., MARTYNYUK N., GLOWACKÍ M., BULUR E., UBİZSKİİ S., BERKOWSKI M., SUCHOCKÍ A.  
RAD 2017, Budva, KARADAĞ, 12 - 16 June 2017
- VIII. **Time Resolved Optically Stimulated Luminescence From Phosphors with Long Emission Lifetimes**

BULUR E.

LUMİDOZ 10 10th International Conference on Luminescence and ESR Dosimetry, Adana, Turkey, 5 - 07 September 2016

- IX. **Structural and Luminescence Characteristics of Orange Emitting Persistent Phosphor Based on SrS**  
KARSU E. C., YILDIRIM S., KARALI T., BULUR E.  
Lumidoz 10 10th International Conference on Luminescence and ESR Dosimetry, Adana, Turkey, 5 - 07 September 2016
- X. **Optically stimulated luminescence from CaF<sub>2</sub> Mn at high temperatures**  
MARABA D., BULUR E.  
Solid State Dosimetry 18 Munich-Germany, Munich, Germany, 3 - 08 July 2016
- XI. **Design and construction of an automated OSL Reader with open source software and hardware**  
Maraba D., BULUR E.  
Solid State Dosimetry 18 Munich-Germany, Munich, Germany, 3 - 08 July 2016
- XII. **Time resolved luminescence studies of Mn<sup>2+</sup> ions in YAlO<sub>3</sub>**  
Zhydachevskii Y., Luchechko A., Maraba D., Martynyuk N., Glowacki M., BULUR E., Ubizskii S., Berkowski M., Suchocki A.  
Solid State Dosimetry 18 Munich-Germany, Munich, Germany, 3 - 08 July 2016
- XIII. **OSL from BeO ceramics Characteristics of the TR OSL signal**  
BULUR E.  
Solid State Dosimetry 18 Munich-Germany, Munich, Germany, 3 - 08 July 2016
- XIV. **Optically stimulated luminescence properties and characteristic analysis of beryllium oxide nano phosphors synthesized using sol gel method**  
Altunal V., YEĞİNGİL Z., Depçi T., Özdemir A., Güçkan V., Yan Y., NUR N., BULUR E.  
Solid State Dosimetry 18 Munich-Germany, Munich, Germany, 3 - 08 July 2016

## Supported Projects

BULUR E., Project Supported by Higher Education Institutions, Spektral-Zaman Tanımlı Osl Sistemi Geliştirilmesi, 2009 - Continues

HASANLI N., Delice S., Işık M., KÖKTEN H., BULUR E., Project Supported by Higher Education Institutions, Y2O3 nanoparçacıkların termoluminesans özelliklerinin incelenmesi, 2018 - 2019

HASANLI N., Delice S., Işık M., KÖKTEN H., BULUR E., Project Supported by Higher Education Institutions, GaInSe ince filmlerin büyütülmesi ve elektriksel özelliklerinin incelenmesi, 2017 - 2017

HASANLI N., Işık M., KÖKTEN H., BULUR E., Project Supported by Higher Education Institutions, GaS(x)Se(1-x) yarıiletken kristallerinin yapısal ve optiksel özelliklerinin incelenmesi, 2016 - 2016

HASANLI N., KÖKTEN H., BULUR E., Project Supported by Higher Education Institutions, Sol-jel yöntemi ile üretilecek ZnO nanokristal ve ince filmlerin yapısal, optiksel ve termoluminesans özelliklerinin incelenmesi, 2015 - 2015

HASANLI N., BULUR E., Project Supported by Higher Education Institutions, BeO malzemesinde sıg tuzak merkezlerinin termoluminesans ölçümleri ile belirlenmesi, 2014 - 2014

HASANLI N., BULUR E., Project Supported by Higher Education Institutions, TlInS<sub>2</sub> ve TlGaSe<sub>2</sub> yarıiletken kristallerinde düşük sıcaklıklarda termoluminesans ölçümleri, 2013 - 2013

## Activities in Scientific Journals

Radiation Measurements, Committee Member, 2016 - Continues

## Scientific Refereeing

RADIATION MEASUREMENTS, SCI Journal, April 2020

RADIATION MEASUREMENTS, SCI Journal, February 2020

## **Tasks In Event Organizations**

Bulur E., Yazıcı A. N., LÜMİDOZ 11, Scientific Congress, Gaziantep, Turkey, Eylül 2018

Bulur E., Lumidoz 10, Scientific Congress, Adana, Turkey, Eylül 2017

Bulur E., Lumidoz 8, Scientific Congress, Ankara, Turkey, Ağustos 2014

## **Metrics**

Publication: 65

Citation (WoS): 2165

Citation (Scopus): 2129

H-Index (WoS): 23

H-Index (Scopus): 22

## **Congress and Symposium Activities**

Lumidoz 10, Invited Speaker, Adana, Turkey, 2016

SSD 18 Solid State Dosimetry, Attendee, Munich, Germany, 2016

SSD 18, Invited Speaker, Munich, Germany, 2016

## **Non Academic Experience**

METU

METU

METU

Oklahoma State University

TU-Darmstadt

Riso National Laboratory Roskilde

GSF Forschungszentrum, Neuhergerg

METU