

## Asst. Prof. ŞERAFETTİN YALTKAYA

### Personal Information

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### Education Information

Doctorate, Akdeniz University, Institute of Science, Fizik, Turkey 1994 - 1999

Postgraduate, Western Michigan University, Faculty Of Art Sciences, Fizik, United States Of America 1989 - 1992

Undergraduate, Ege University, Faculty Of Science, Fizik, Turkey 1981 - 1987

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Boya Laserlerinde Kullanılan Maddelerin Kırılma İndisinin Sıcaklıkla Değişimi ve Optik Lif Yöntemi ile İncelenmesi, Akdeniz University, Institute of Science, Fizik, 1999

Postgraduate, Double Differential Cross Sections for State Selective Electron Capture by Low Energy Ar<sup>4+</sup> and Ar<sup>5+</sup> Ions From He and Ar, Western Michigan University, Graduate School, Fizik, 1992

### Research Areas

Physics, Atomic and Molecular Physics, Atomic Spectra and Photon Interactions, General Physics, Measurement Science, General Laboratory Techniques, and Metrology, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Akdeniz University, Faculty of Science, Fizik, 2018 - Continues

Assistant Professor, Akdeniz University, Faculty of Science, Fizik, 2001 - 2018

Lecturer PhD, Akdeniz University, Faculty of Science, Fizik, 1999 - 2001

Research Assistant, Akdeniz University, Institute of Science, Fizik, 1994 - 1999

Research Assistant, Akdeniz University, Faculty of Science, Kimya, 1993 - 1994

Expert, Akdeniz University, Faculty of Science, Fizik, 1992 - 1993

Research Assistant, Anadolu University, Faculty Of Education, Fen Bilimleri, 1988 - 1992

### Academic and Administrative Experience

Akdeniz University, Fizik Bölümü, 2017 - 2018

Akdeniz University, Nükleer Bilimler Araştırma Uygulama Merkezi, 2017 - 2018  
Akdeniz University, Nükleer Bilimler Araştırma Uygulama Merkezi, 2015 - 2016  
Akdeniz University, Atom Ve Molekül Fiziği, 2005 - 2013  
Akdeniz University, Institute of Science, 2004 - 2008  
Akdeniz University, Fizik Bölümü, 2003 - 2005  
Akdeniz University, Fizik Bölümü, 2000 - 2002

## Advising Theses

YALTKAYA Ş., Optik lif manyetik alan algılayıcısı tasarımı ve manyetik alan ölçümü, Postgraduate, E.Kendir(Student), 2011

## Jury Memberships

Competition, Liseler Arası Proje Yarışması, Antalya MEB Liseler Arası Proje Yarışması, April, 2017  
Competition, Liseler Arası Proje Yarışması, TÜBİTAK Liseler Arası Proje Yarışması, February, 2017  
Competition, TÜBİTAK Liseler Arası Proje Yarışması, TÜBİTAK Liseler Arası Proje Yarışması, January, 2016  
Competition, TÜBİTAK Liseler Arası Proje Yarışması, TÜBİTAK Liseler Arası Proje Yarışması, January, 2015

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

- I. **Long afterglow (LAG) photoluminescence effect in ce-doped optical fiber**  
Kendir Tekgül E., Yaltkaya Ş.  
Journal of Luminescence, vol.269, 2024 (SCI-Expanded)
- II. **Effect of temperature and wavelength on the refractive index of water: a fiber-optic sensor application**  
Kendir E., Yaltkaya S.  
INDIAN JOURNAL OF PHYSICS, vol.96, no.4, pp.1247-1252, 2022 (SCI-Expanded)
- III. **Cerium-doped fused-silica fibers for particle physics detectors**  
Akchurin N., Bartosik N., Damgov J., De Guio F., Dissertori G., Kendir E., Kunori S., Mengke T., Nessi-Tedaldi F., Pastrone N., et al.  
JOURNAL OF INSTRUMENTATION, vol.15, no.3, 2020 (SCI-Expanded)
- IV. **Variations of magnetic field measurement with an extrinsic Fabry-Perot interferometer by double-beam technique**  
Kendir E., Yaltkaya S.  
MEASUREMENT, vol.151, 2020 (SCI-Expanded)
- V. **Structural, Optical and Magnetic Properties of alpha-Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> and Dy<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> Composites Produced by a Facile Method**  
Kendir E., Tekgul A., KÜÇÜK İ., Yaltkaya S.  
JOURNAL OF ELECTRONIC MATERIALS, vol.49, no.1, pp.798-806, 2020 (SCI-Expanded)
- VI. **Cerium-doped fused-silica fibers as wavelength shifters**  
Akchurin N., Bartosik N., Damgov J., De Guio F., Dissertori G., Kendir E., Kunori S., Mengke T., Nessi-Tedaldi F., Pastrone N., et al.  
JOURNAL OF INSTRUMENTATION, vol.14, 2019 (SCI-Expanded)
- VII. **Radiation-hardness studies with cerium-doped fused-silica fibers**  
Akchurin N., Kendir E., Yaltkaya S., Damgov J., De Guio F., Kunori S.  
JOURNAL OF INSTRUMENTATION, vol.14, 2019 (SCI-Expanded)
- VIII. **γ irradiation induced effects on the TCO thin films**

Kabacelik I., Kutaruk H., Yaltkaya S., ŞAHİN R.  
Radiation Physics and Chemistry, vol.134, pp.89-92, 2017 (SCI-Expanded)

- IX. **A New Fiber Optic Spring**  
Yaltkaya S.  
ACTA PHYSICA POLONICA A, vol.125, no.2, pp.635-637, 2014 (SCI-Expanded)
- X. **A Simple, New Type of Rotational Viscometer**  
Yaltkaya S., OZELSOY S.  
INSTRUMENTATION SCIENCE & TECHNOLOGY, vol.37, no.6, pp.655-659, 2009 (SCI-Expanded)
- XI. **EXPERIMENTAL-STUDY OF SINGLE-ELECTRON CAPTURE BY LOW-ENERGY NEQ+ RECOIL IONS (Q=3-6) FROM HE, NE AND AR USING TRANSLATIONAL ENERGY SPECTROSCOPY**  
SAID R., KAMBER E., YALTKAYA S., FERGUSON S.  
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.27, no.17, pp.3993-4008, 1994 (SCI-Expanded)
- XII. **DIFFERENTIAL CROSS-SECTIONS FOR STATE-SELECTIVE ELECTRON-CAPTURE BY LOW-ENERGY AR(Q+) IONS FROM HE AND AR**  
YALTKAYA S., KAMBER E., FERGUSON S.  
PHYSICAL REVIEW A, vol.48, no.1, pp.382-391, 1993 (SCI-Expanded)
- XIII. **TRANSLATIONAL ENERGY-SPECTRA AND DIFFERENTIAL CROSS-SECTIONS FOR LOW-ENERGY AR-5+ -AR AND NE-5+ -NE COLLISIONS**  
SAID R., KAMBER E., YALTKAYA S., GOPINATHAN M., FERGUSON S.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.79, no.1-4, pp.40-43, 1993 (SCI-Expanded)

### Articles Published in Other Journals

- I. **GAMMA RAY EFFECT ON OP-AMP 741 AND TIMER 555 IC**  
Kendir Tekgöl E., Yaltkaya S.  
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.28, no.1, pp.193-206, 2023 (Peer-Reviewed Journal)
- II. **A different point of view: a continuous tracing of acid-base titration with fiber-optic sensor**  
YALTKAYA Ş., Kendir E.  
Turkish Journal of Physics, vol.37, pp.208-211, 2013 (Scopus)
- III. **Experimental investigation of temperature effect on the refractive index of dye laser liquids**  
YALTKAYA Ş., Aydın R.  
Turkish Journal of Physics, vol.26, no.1, pp.41-47, 2002 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **GAMMA RADIATION EFFECTS IN QUARTZ OPTICAL FIBERS**  
Kendir E., YALTKAYA Ş., Akchurin N.  
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017, vol.01PP16, pp.3
- II. **Effects of gamma irradiation on the thin ITO films**  
KABAÇELİK İ., Kutaruk H., YALTKAYA Ş., ŞAHİN R.  
International Congress on Semiconductor Materials and Devices (ICSMD-2017), Konya, Turkey, 17 - 19 August 2017, pp.1
- III. **OPTİK FİBERDE SAYISAL AÇIKLIĞIN DEĞİŞİKLİĞİ: FARKLI KIRILMA İNDİSLERİNDEKİ YELEĞİN ROLÜ**  
Kendir E., YALTKAYA Ş., Akchurin N.  
ADIM FİZİK GÜNLERİ VI, Balıkesir, Turkey, 19 - 21 July 2017, pp.144
- IV. **Cerium-doped Fused-Silica Fibers 21-26 May 2017**  
Akchurin N., Cowden C., Damgov J., Dragoiu J., Pudero P., Faulkner J., Kunori S., Lee J., Wang Z., Xu Z., et al.

The Technology and Instrumentation in Particle Physics 2017 (TIPP2017), Beijing, China, 21 May - 26 August 2017

- V. **ANALYSIS OF A OP-AMP 741 AND A TIMER 555 IC UNDER INFLUENCE OF GAMMA RAY**  
Kendir E., YALTKAYA Ş.  
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 28 August 2015
- VI. **MAGNETIC FIELD MEASUREMENT WITH EXTRINSIC FABRY-PEROT INTERFEROMETER by DOUBLE-BEAM TECNIUQUE**  
Kendir E., YALTKAYA Ş.  
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015
- VII. **DISPLACEMENT MEASUREMENT WITH AN OPTICAL FIBER FABRY-PEROT DUAL-BEAM INTERFEROMETER**  
YALTKAYA Ş., Kendir E.  
TURKISH PHYSICAL SOCIETY-30. INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 2 - 05 September 2013, pp.1
- VIII. **Işık saçılımı metodları ile polielektrolit-tuz çözeltilerinde faz geçiş dinamiğinin incelenmesi**  
KAYA D., ERDEM R., YALTKAYA Ş.  
İstatistik Fizik Günleri 21, Kayseri, Turkey, 27 June 2013 - 29 June 2013, pp.5
- IX. **Işık saçılımı metodları ile polielektrolit-tuz çözeltilerinde faz geçiş dinamiğinin incelenmesi**  
KAYA D., ERDEM R., YALTKAYA Ş.  
İstatistik Fizik Günleri 21, Kayseri, Turkey, 27 June 2013 - 29 June 2013, pp.5
- X. **IŞIK SAÇILIMI METODLARI İLE POLİELEKTROLİT-TUZ ÇÖZELTİLERİNDE FAZ GEÇİŞ DİNAMİĞİNİN İNCELENMESİ**  
KAYA D., YALTKAYA Ş., ERDEM R.  
20. İSTATİKSEL FİZİK GÜNLERİ,, Kayseri, Turkey, 27 - 29 June 2013, pp.1
- XI. **A New Fiber Optic Spring**  
YALTKAYA Ş.  
3. International Advances in Applied Physics & Materials Science Congress, Antalya, Turkey, 24 - 28 April 2013, pp.1
- XII. **An Optical Fiber Twist Sensor**  
YALTKAYA Ş., Kendir E.  
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, pp.1
- XIII. **A FIBER OPTIC MAGNETIC FIELD SENSOR**  
YALTKAYA Ş., Gök F.  
TÜRK FİZİKDERNEĞİ 25. ULUSLARARASI FİZİK KONGRESİ, Muğla, Turkey, 18 - 22 August 2008, pp.1
- XIV. **Measurement of Refractive Index of Water; Variation of Temperature and Wavelength with a Fiber Optic Sensor**  
YALTKAYA Ş., Bayır S., Kendir E.  
17th International. Conferance on Advance. Laser Tech., Antalya, Turkey, 15 - 16 June 2008, pp.1
- XV. **Simulation of longitudinally pumped Ni-like molybdenum X-ray laser medium using post-processor code coupled to EHYBRID**  
KAÇAR E., Demir P., Demir P., DEMİR A., Yaltkaya S.  
10th International Conference on X-Ray Lasers, Berlin, Germany, 20 - 25 August 2006, vol.115, pp.347-348
- XVI. **Longitudinally pumped Ne-like titanium x-ray laser simulation with a post-processor code coupled to EHYBRID**  
DEMİR A., AKMAN E., Bilikmen S., Demir P., Ince S., KAÇAR E., Yurdanur E., Yaltkaya S.  
10th International Conference on X-Ray Lasers, Berlin, Germany, 20 - 25 August 2006, vol.115, pp.341-342
- XVII. **Vibration free interferometer mirror**  
Yaltkaya S.  
6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.689
- XVIII. **Optik Lif Çekirdeğinin Kırılma İndisi Değerlerinin Belirlenmesi**  
YALTKAYA Ş., Özelsoy S.  
Türk Fizik Derneği 23. Uluslararası Fizik Kongresi,, Muğla, Turkey, 21 - 23 September 2005, pp.1

- XIX. **Determination of Temperature Dependant Viscosity Values of Lubricants via Simultaneous Measurements of Refractive Indices**  
YALTKAYA Ş., Özelsoy S.  
2005 Dünya Fizik Yılı Türk Fizik Derneği 23. Uluslararası Fizik Kongresi, Muğla, Turkey, 21 - 23 September 2005, pp.1
- XX. **Boya Lazerlerinde Kullanılan Boyaların, Sıcaklıkla Kırılma İndisinin Değişiminin Fiber Optik Refraktometre ile Ölçülmesi**  
YALTKAYA Ş., Aydın R.  
II. Ulusal Atom ve Molekül Fiziği Sempozyumu, Ankara, Turkey, 17 June 1998, pp.1
- XXI. **Elektrokimyasal (Glukoz) ile Optik (Laktat) Biosensörlerinin Karşılaştırılması**  
YALTKAYA Ş., Saraçoğlu İ. A., Demircan N.  
XI. Ulusal Biokimya Kongresi, İstanbul, Turkey, 15 June 1994, pp.1
- XXII. **Glucose Biosensor for Whole Measurement Using a Blood-Compatiable Membrane**  
YALTKAYA Ş., Saraçoğlu İ. A., Aksu A.  
XI. Ulusal Biokimya Kongresi, İstanbul, Turkey, 15 June 1994, pp.1
- XXIII. **Translational Energy Spectra and Differential Cross Sections for Low Energy Ar<sup>4+</sup> - Ar and Ne<sup>4+</sup> - Ne Collisions.**  
YALTKAYA Ş., Kamber E. Y., Said R., Gopitan M., Ferguson S.  
Twelfth International Conference on the Application of Accelerators in Research and Industry, Denton, United States Of America, 15 - 16 June 1993, pp.1
- XXIV. **DIFFERENTIAL SCATTERING OF LOW-ENERGY NE<sup>4+</sup> RECOIL IONS FROM HE AND AR ASSOCIATED WITH CAPTURE**  
SAID R., KAMBER E., YALTKAYA S., GOPINATHAN M., FERGUSON S.  
6TH INTERNATIONAL CONF ON THE PHYSICS OF HIGHLY CHARGED IONS ( HCI-92 ), Kansas, United States Of America, 28 September - 02 October 1992, vol.274, pp.159-162

## Supported Projects

- ŞAHİN R., YALTKAYA Ş., Project Supported by Higher Education Institutions, Gamma irradiation induced effects on the TCO thin films, 2017 - 2020
- YALTKAYA Ş., Project Supported by Higher Education Institutions, Şekillendirilmiş hüzmelerin saçıcı ortamda karakterizasyonu ve Axicon kusurlarının ışık demeti kalitesine etkilerinin araştırılması, 2017 - 2019
- ŞAHİN R., YALTKAYA Ş., Onay G., Project Supported by Higher Education Institutions, Nanosaniye atımlı kırınımsız ilerleyen lazer-malzeme etkileşimi ve uygulamaları, 2017 - 2019
- Yaltkaya Ş., Yücel M. B., Uluğ B., TÜBİTAK International Bilateral Joint Cooperation Program Project, Yapılanmaya Yardımcı Polimerler Kullanarak Geliştirilmiş Sol-Jel Yöntemi ile Nano Boyutta Yapılandırılmış Yarıiletken Katmanların Eldesi ve Karakterizasyonu, 2008 - 2010
- YALTKAYA Ş., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Nükleer Füzyon ve Endüstriyel uygulamalar için X-Işını Lazerlerin Tasarımı ve Yapılması, 2004 - 2007
- YALTKAYA Ş., TUBITAK Project, Optik Yoğunluk Değişimine Duyarlı Fiber Optik Algılayıcı, 2003 - 2004

## Scientific Consultations

- Ulusal Teknoloji Mühendislik Sanayi Tah. Tic. LDT, Scientific Consultancy, Akdeniz University, Faculty Of Science, Fizik, Turkey, 2015 - 2017

## Metrics

Publication: 40

Citation (WoS): 61

Citation (Scopus): 59

H-Index (WoS): 5

H-Index (Scopus): 4