

## Prof. SERHAT ÖZDER

### Personal Information

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### Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik, Turkey 1986 - 1994

### Research Areas

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

### Academic Titles / Tasks

Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik Bölümü, 2005 - Continues

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

- I. **A new method to determine the continuous refractive index of an absorbing film by Generalized Stockwell Transform**  
COŞKUN E., Emir C., Selamet S., PARLAK M., ÖZDER S.  
Optics and Laser Technology, vol.167, 2023 (SCI-Expanded)
- II. **Quantitative phase imaging of erythrocyte in epilepsy patients**  
Unal A., KOCAHAN YILMAZ Ö., Altunan B., GÜNDOĞDU A. A., Uyanik M., ÖZDER S.  
MICROSCOPY RESEARCH AND TECHNIQUE, vol.84, no.6, pp.1172-1180, 2021 (SCI-Expanded)
- III. **An Improved Method for Determination of Refractive Index of Dielectric Films from Reflectance Spectrum by Using the Generalized Morse Wavelet**  
Tiryaki E., KOCAHAN YILMAZ Ö., ÖZDER S.  
MEASUREMENT SCIENCE REVIEW, vol.21, no.2, pp.61-66, 2021 (SCI-Expanded)
- IV. **Simultaneous determination of the thickness and refractive index dispersion of dielectric films by the Paul wavelet transform**  
ÖZCAN S., COŞKUN E., KOCAHAN YILMAZ Ö., ÖZDER S.  
THIN SOLID FILMS, vol.692, 2019 (SCI-Expanded)
- V. **The zero order generalized Morse wavelet method to determine the refractive index and extinction coefficient dispersions of an absorbing film**  
KOCAHAN YILMAZ Ö., COŞKUN E., Tiryaki E., ÖZDER S.  
THIN SOLID FILMS, vol.673, pp.72-77, 2019 (SCI-Expanded)
- VI. **Determination of phase from the ridge of CWT using generalized Morse wavelet**  
KOCAHAN YILMAZ Ö., Tiryaki E., COŞKUN E., ÖZDER S.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.29, no.3, 2018 (SCI-Expanded)

- VII. **The generalized Morse wavelet method to determine refractive index dispersion of dielectric films**  
KOCAHAN YILMAZ Ö., ÖZCAN S., COŞKUN E., ÖZDER S.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.28, no.4, 2017 (SCI-Expanded)
- VIII. **Generalized Morse wavelet for the determination of the birefringence of a liquid crystal cell**  
KOCAHAN YILMAZ Ö., COŞKUN E., ÖZDER S.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.26, no.8, 2015 (SCI-Expanded)
- IX. **Generalized Morse wavelets for the phase evaluation of projected fringe pattern**  
KOCAHAN YILMAZ Ö., COŞKUN E., ÖZDER S.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.25, no.10, 2014 (SCI-Expanded)
- X. **The Paul wavelet algorithm: an alternative approach to calculate the refractive index dispersion of a dielectric film from transmittance spectrum**  
COŞKUN E., ÖZDER S., Tiryaki E.  
APPLIED PHYSICS B-LASERS AND OPTICS, vol.113, no.2, pp.243-250, 2013 (SCI-Expanded)
- XI. **Influence of Annealing Temperature on the Electrical and Optical Properties of CdS Thin Films**  
ELMAS S., ÖZCAN S., ÖZDER S., BİLGİN V.  
ACTA PHYSICA POLONICA A, vol.121, no.1, pp.56-58, 2012 (SCI-Expanded)
- XII. **Paul wavelet algorithm for the determination of birefringence dispersion of a liquid crystal cell**  
COŞKUN E., ÖZDER S.  
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, vol.28, no.12, pp.2974-2978, 2011 (SCI-Expanded)
- XIII. **Determination of the refractive index of a dielectric film continuously by the generalized S-transform**  
COŞKUN E., SEL K., ÖZDER S.  
OPTICS LETTERS, vol.35, no.6, pp.841-843, 2010 (SCI-Expanded)
- XIV. **Refractive index and extinction coefficient determination of an absorbing thin film by using the continuous wavelet transform method**  
COŞKUN E., SEL K., ÖZDER S., KURT M.  
APPLIED OPTICS, vol.47, no.27, pp.4888-4894, 2008 (SCI-Expanded)
- XV. **Phase recovery from interference fringes by using S-transform**  
Dursun A., SARAÇ Z., Topkara M. S., ÖZDER S., ECEVİT F. N.  
MEASUREMENT, vol.41, no.4, pp.403-411, 2008 (SCI-Expanded)
- XVI. **Determination of birefringence dispersion in nematic liquid crystals by using an S-transform**  
Ozder S., COŞKUN E., Koysal O., Kocahan O.  
OPTICS LETTERS, vol.32, no.14, pp.2001-2003, 2007 (SCI-Expanded)
- XVII. **The behavior of the strange quark matter in the FRW universes**  
YILMAZ İ., KÜÇÜKARSLAN A., ÖZDER S.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.22, no.12, pp.2283-2291, 2007 (SCI-Expanded)
- XVIII. **Effect of an azo dye (DR1) on the dielectric parameters of a nematic liquid crystal system**  
OZDER S., OKUTAN M., KOYSAL O., GOKTAS H., SAN S. E.  
PHYSICA B-CONDENSED MATTER, vol.390, pp.101-105, 2007 (SCI-Expanded)
- XIX. **Optical phase distribution evaluation by using an S-transform**  
Ozder S., KOCAHAN O., COŞKUN E., GOKTAS H.  
OPTICS LETTERS, vol.32, no.6, pp.591-593, 2007 (SCI-Expanded)
- XX. **Molecular reorientation based diffraction in a hybrid liquid crystal system applicable for two different laser sources simultaneously**  
Koysal O., San S. E., Okutan M., Ozder S.  
DYES AND PIGMENTS, vol.73, no.1, pp.65-68, 2007 (SCI-Expanded)

## Articles Published in Other Journals

I. **Yaw Ve Pitch Kontrollü Dişli Kutusuz 5kW Rüzgâr Türbini Üretilmesi Ve Verimliliği**

YÜCEL M., ÖZDER S.

Çanakkale Onsekiz mart Univ. Fen Bilimleri Enstitüsü dergisi, vol.4, no.1, pp.74-87, 2018 (Peer-Reviewed Journal)

**Refereed Congress / Symposium Publications in Proceedings**

I. **CHEMICALLY SPRAYED SnO<sub>2</sub>:F (FTO) THIN FILMS FOR PHOTOVOLTAIC APPLICATIONS**

KÜÇÜKARSLAN A., SARICA E., GÜNEŞ İ., AKYÜZ İ., ÖZDER S., BİLGİN V.

6nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'21),

Nevşehir/Kapadokya, Turkey, 26 - 28 November 2021

II. **Ultrasonically spray deposited tin-doped indium oxide thin films for photovoltaic solar cell application**

GÜNEŞ İ., SARICA E., AKYÜZ İ., KÜÇÜKARSLAN A., ÖZDER S., BİLGİN V.

Turkish Physical Society 37th International Physical Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021

III. **Determination of surface profile of thin films by continuous wavelet transform.**

TİRYAKİ E., KOCAHAN YILMAZ Ö., COŞKUN E., ÖZDER S.

6. International Conference of Material Science and Nanotechnology for Next Generation (MSNG2019), Kayseri, Turkey, 16 - 17 October 2019

IV. **Electrical Properties of ZnSe/Si Nanowire and ZnSe/Si Heterostructures**

BOZDOĞAN E., COŞKUN E., ÖZDER S., GÜLLÜ H. H., PARLAK M.

Turkish Physical Society 34th International Physics Congress (TFD-34), Muğla, Turkey, 5 - 09 September 2018

V. **FOURIER TRANSFORM PHASE METHOD FOR THE DETERMINATION OF SURFACE MORPHOLOGY OF THIN FILM**

KOCAHAN YILMAZ Ö., ERTÜRK E., ÖZDER S.

International Conference on Physical Chemistry and Functional Materials, Turkey, 19 - 21 June 2018

VI. **QUANTITATIVE PHASE IMAGING OF THIN FILM SURFACE BY DIFFRACTION PHASE MICROSCOPY**

KOCAHAN YILMAZ Ö., ÖZDER S.

International Conference on Physical Chemistry and Functional Materials, 19 - 21 June 2018

VII. **Substrate temperature effect on the structural, morphological, optical and electrical properties of spray-deposited zinc sulphide thin films**

DEMİRSELÇUK B., BİLGİN V., SARICA E., ÖZDER S.

Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017

VIII. **Effect of Zn/S molar ratio on the physical properties of spray-pyrolysed ZnS thin films for photovoltaic applications**

DEMİRSELÇUK B., BİLGİN V., ÖZDER S., SARICA E.

Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017

IX. **Optical properties of silicon nanowires for different length fabricated by metal assisted chemical etching method**

BOZDOĞAN E., COŞKUN E., ÖZDER S., KOCAHAN YILMAZ Ö.

Turkish Physical Society 33th International Physics Congress, 6 - 09 September 2017

X. **Production of silicon nanowire having different size by using metal assisted chemical etching method**

BOZDOĞAN E., COŞKUN E., ÖZDER S., KOCAHAN YILMAZ Ö.

Turkish Physical Society 33th International Physics Congress, 6 - 09 September 2017

XI. **The generalized morse wavelet to determine the refractive index and the extinction coefficient of an absorbing film from reflectance spectrum: a simulation study**

TİRYAKİ E., KOCAHAN YILMAZ Ö., ÖZDER S.

Turkish Physical Society 33th International Physics Congress, 6 - 09 September 2017

XII. **A simulation study to determine the birefringence dispersion of a liquid crystal from reflectance spectrum by using the paul wavelet**

TİRYAKİ E., KOCAHAN YILMAZ Ö., ÖZDER S.

Turkish Physical Society 33th International Physics Congress, 6 - 09 September 2017

- XIII. **A Simulation Study for Determination of Refractive Index Dispersion of Dielectric Film from Reflectance Spectrum by Using Paul Wavelet**  
Tiryaki E., COŞKUN E., KOCAHAN YILMAZ Ö., ÖZDER S.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- XIV. **Optical Phase Distribution Evaluation by Using Zero Order Generalized Morse Wavelet**  
KOCAHAN YILMAZ Ö., Elmas M. N., Durmus C., COŞKUN E., Tiryaki E., ÖZDER S.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- XV. **3D Profile Measurements of Objects by Using Zero Order Generalized Morse Wavelet**  
KOCAHAN YILMAZ Ö., Durmus C., Elmas M. N., COŞKUN E., Tiryaki E., ÖZDER S.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- XVI. **Quantitative Phase Imaging of Red Blood Cell by Diffraction Phase Microscopy**  
KOCAHAN YILMAZ Ö., Tiryaki E., Durmus C., Elmas M. N., COŞKUN E., ÖZDER S.  
International Workshop on Computing and Electromagnetics (CEM), Barcelona, Spain, 21 - 24 June 2017, pp.21-22
- XVII. **An Improved Method For Determination Of Refractive Index Of Absorbing Films: A Simulation Study**  
Özcan S., Coşkun E., Kocahan Yılmaz Ö., Özder S.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- XVIII. **An Improved Method For Simultaneous Determination Of Refractive Index And Thickness Of Dielectric Films A Simulation Study**  
ÖZCAN S., COŞKUN E., KOCAHAN YILMAZ Ö., ÖZDER S.  
Science and Applications of Thin Films, Congress & Exhibition - SATF 2016, İzmir, Turkey, 19 - 23 September 2016
- XIX. **Determination of the Refractive Index of Dielectric Films from the Transmittance Spectrum by Using Morse Wavelet**  
TİRYAKİ E., KOCAHAN YILMAZ Ö., COŞKUN E., ELMAS M. N., ÖZDER S.  
Science and Applications of Thin Films, Conference & Exhibition SATF 2016, 19 - 23 September 2016
- XX. **Theoretical Determination of the Refractive Index and Extinction Coefficient of an Absorbing Thin Film by Using Morse Wavelet**  
TİRYAKİ E., KOCAHAN YILMAZ Ö., COŞKUN E., DURMUŞ Ç., ÖZDER S.  
Science and Applications of Thin Films, Conference & Exhibition (SATF 2016), 19 - 23 September 2016
- XXI. **A simulation study for determination of refractive index dispersion of dielectric film from reflectance spectrum by using Paul wavelet**  
TİRYAKİ E., COŞKUN E., ÖZDER S., BOZDOĞAN E., KOCAHAN YILMAZ Ö., ELMAS M. N.  
Turkish Physical Society 32th International Physics Congress, 6 - 09 September 2016
- XXII. **An improved method for determination of refractive index of absorbing films a simulation study**  
ÖZCAN S., COŞKUN E., ÖZDER S., KOCAHAN YILMAZ Ö.  
Turkish Physical Society 32th International Physics Congress, 6 - 09 September 2016
- XXIII. **Optical phase distribution evaluation by using zero order generalized Morse wavelet**  
KOCAHAN YILMAZ Ö., ELMAS M. N., DURMUŞ Ç., COŞKUN E., TİRYAKİ E., ÖZDER S.  
Turkish Physical Society 32th International Physics Congress, 6 - 09 September 2016
- XXIV. **Determination of the refractive index dispersion of dielectric film from reflectance spectrum by using Morlet wavelet**  
TİRYAKİ E., COŞKUN E., ÖZDER S., KUŞ E., KOCAHAN YILMAZ Ö., DURMUŞ Ç.  
Turkish Physical Society 32th International Physics Congress, 6 - 09 September 2016
- XXV. **3D profile measurements of objects by using zero order generalized Morse wavelet**  
KOCAHAN YILMAZ Ö., DURMUŞ Ç., ELMAS M. N., COŞKUN E., TİRYAKİ E., ÖZDER S.  
Turkish Physical Society 32th International Physics Congress, 6 - 09 September 2016

- XXVI. **Alternatif üstel tipli orbitaller hiperbolik kosinüs tiplifonksiyonlarının verimliliği**  
ERTÜRK M., ÖZDER S., Öztürk E.  
ADIM FİZİK GÜNLERİ V, Eskişehir, Turkey, 21 - 23 April 2016
- XXVII. **An Improved Method For The Determination Of Birefringence Dispersion Of Liquid Crystal Cell: A Simulation Study**  
ÖZCAN S., COŞKUN E., KOCAHAN YILMAZ Ö., ÖZDER S.  
9th International Physics Conference of the Balkan-Physical-Union (BPU), İstanbul, Turkey, 24 - 27 August 2015, vol.1722
- XXVIII. **Profile Measurement of Objects by Using Stockwell and Continuous Wavelet Transforms**  
Kocahan O., COŞKUN E., ÖZDER S.  
IEEE 16th Signal Processing and Communications Applications Conference, Aydın, Turkey, 20 - 22 April 2008, pp.804-807
- XXIX. **S-transform analysis of projected fringe patterns - art. no. 66161A**  
Kocahan O., ÖZDER S., COŞKUN E.  
Conference on Optical Measurement Systems for Industrial Inspection V, Munich, Germany, 18 - 22 June 2007, vol.6616
- XXX. **Optical phase distribution evaluation by using S-transform**  
Kocallan O., ÖZDER S., COŞKUN E.  
6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.684

## Supported Projects

COŞKUN E., ÖZDER S., YILMAZ Ö. K., BOZDOĞAN E., Project Supported by Higher Education Institutions, Metal destekli kimyasal aşındırma yöntemi ile farklı boyutlarda veveya açılarda Silisyum nano ipliksi yapıların üretimi, 2019 - 2020

## Metrics

Publication: 62

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