

# Prof. OLGUN ADEM KAYA

## Personal Information

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## Education Information

Doctorate, Inonu University, Fen Bilimleri, Fizik, Turkey 1999 - 2004

Post Graduate, Inonu University, Fen Bilimleri, Fizik, Turkey 1996 - 1998

Under Graduate, Inonu University, Fen Edebiyat, Fizik, Turkey 1991 - 1995

## Dissertations

Doctorate, İki ve Üç Boyutta Nonlineer Akustik Alan Yapılarının Nümerik İncelemesi, Inonu University, Fen Edebiyat Fak, Fizik, 2004

Post Graduate, Çeşitli Geometrilere Sahip Akustik Kaynakların Lineer Ortamda Oluşturdukları Basınç Alanlarının İncelenmesi, Inonu University, Fen Edebiyat Fak., Fizik, 1998

## Research Areas

Physics, Interdisciplinary Physics and Related Science and Technology Areas, Materials Science, Natural Sciences

## Academic Titles / Tasks

Professor, Inonu University, Eğitim Fakültesi, Böte , 2018 - Continues

Associate Professor, Inonu University, Eğitim Fakültesi, Bilgisayar Ve Öğretim Teknolojileri Eğitimi Bölümü, 2013 - 2018

Assistant Professor, Inonu University, Eğitim Fakültesi, Bilgisayar Ve Öğretim Teknolojileri Eğitimi Bölümü, 2006 - 2013

Research Assistant, Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 1997 - 2006

## Professional Experience

Head of Department, Inonu University, Eğitim Fakültesi, Bilgisayar Ve Öğretim Teknolojileri Eğitimi Bölümü, 2013 - 2017

Head of Department, Inonu University, Eğitim Fakültesi, Bilgisayar Ve Öğretim Teknolojileri Eğitimi Bölümü, 2006 - 2009

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

- I. **One-dimensional surface phononic crystal ring resonator and its application in gas sensing**  
KAYA O. A. , KÖRÖZLÜ N., Trak D., ARSLAN Y., ÇİÇEK A.  
APPLIED PHYSICS LETTERS, vol.115, 2019 (Journal Indexed in SCI)
- II. **Ultrasonic Gas Sensing by Two-Dimensional Surface Phononic Crystal Ring Resonators**  
ÇİÇEK A., Trak D., ARSLAN Y., KÖRÖZLÜ N., KAYA O. A. , ULUĞ B.  
ACS SENSORS, vol.4, pp.1761-1765, 2019 (Journal Indexed in SCI)
- III. **Gas sensing through evanescent coupling of spoof surface acoustic waves**

- ÇİÇEK A., ARSLAN Y., Trak D., Okay F. C. , KAYA O. A. , KÖRÖZLÜ N., ULUĞ B.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.288, pp.259-265, 2019 (Journal Indexed in SCI)
- IV. **Acoustic Tamm states of three-dimensional solid-fluid phononic crystals**  
Korozlu N., KAYA O. A. , Cicek A., ULUĞ B.  
JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol.143, pp.756-764, 2018 (Journal Indexed in SCI)
- V. **Acoustophoretic separation of airborne millimeter-size particles by a Fresnel lens**  
Cicek A., Korozlu N., KAYA O. A. , ULUĞ B.  
SCIENTIFIC REPORTS, vol.7, 2017 (Journal Indexed in SCI)
- VI. **Phononic crystal surface mode coupling and its use in acoustic Doppler velocimetry**  
Cicek A., Salman A., KAYA O. A. , ULUĞ B.  
ULTRASONICS, vol.65, pp.78-86, 2016 (Journal Indexed in SCI)
- VII. **Evanescent coupling between surface and linear-defect guided modes in phononic crystals**  
Cicek A., Salman A., KAYA O. A. , ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.49, 2016 (Journal Indexed in SCI)
- VIII. **Sharp bends of phononic crystal surface modes**  
Cicek A., Salman A., KAYA O. A. , ULUĞ B.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.27, 2015 (Journal Indexed in SCI)
- IX. **Surface modification of YIG by magnet array**  
ATALAY S., KOLAT V. S. , BAKIR H. G. , İZGİ T., KAYA A., KAYA O. A. , GENÇER H.  
APPLIED SURFACE SCIENCE, vol.354, pp.337-341, 2015 (Journal Indexed in SCI)
- X. **Low-concentration liquid sensing by an acoustic Mach-Zehnder interferometer in a two-dimensional phononic crystal**  
Salman A., KAYA O. A. , Cicek A., ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.48, 2015 (Journal Indexed in SCI)
- XI. **Guiding airborne sound through surface modes of a two-dimensional phononic crystal**  
Cicek A., Gungor T., KAYA O. A. , ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.48, 2015 (Journal Indexed in SCI)
- XII. **YIG Film for Magnetic Field Sensor**  
KAYA A., ATALAY S., GENÇER H., KAYA O. A. , KOLAT V. S. , İZGİ T.  
ACTA PHYSICA POLONICA A, vol.127, pp.937-939, 2015 (Journal Indexed in SCI)
- XIII. **Acoustic Mach-Zehnder interferometer utilizing self-collimated beams in a two-dimensional phononic crystal**  
KAYA O. A. , Cicek A., SALMAN A., ULUĞ B.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.203, pp.197-203, 2014 (Journal Indexed in SCI)
- XIV. **Determination of concentration of ethanol in water by a linear waveguide in a 2-dimensional phononic crystal slab**  
SALMAN A., KAYA O. A. , Cicek A.  
SENSORS AND ACTUATORS A-PHYSICAL, vol.208, pp.50-55, 2014 (Journal Indexed in SCI)
- XV. **Acoustic beam splitting in a sonic crystal around a directional band gap**  
Cicek A., KAYA O. A. , ULUĞ B.  
CHINESE PHYSICS B, vol.22, 2013 (Journal Indexed in SCI)
- XVI. **Acoustic waveguiding by pliable conduits with axial cross sections as linear waveguides in two-dimensional sonic crystals**  
Cicek A., KAYA O. A. , ULUĞ B.  
JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol.134, pp.3613-3618, 2013 (Journal Indexed in SCI)
- XVII. **Self-collimated slow sound in sonic crystals**  
KAYA O. A. , Cicek A., ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.45, 2012 (Journal Indexed in SCI)
- XVIII. **Refraction-based photonic crystal diode**  
Cicek A., YÜCEL M. B. , KAYA O. A. , ULUĞ B.  
OPTICS LETTERS, vol.37, pp.2937-2939, 2012 (Journal Indexed in SCI)

- XIX. **Refraction-type sonic crystal junction diode**  
Cicek A., KAYA O. A. , ULUĞ B.  
APPLIED PHYSICS LETTERS, vol.100, 2012 (Journal Indexed in SCI)
- XX. **Impacts of uniaxial elongation on the bandstructures of two-dimensional sonic crystals and associated applications**  
Cicek A., KAYA O. A. , ULUĞ B.  
APPLIED ACOUSTICS, vol.73, pp.28-36, 2012 (Journal Indexed in SCI)
- XXI. **Slow sound propagation in a sonic crystal linear waveguide**  
Cicek A., KAYA O. A. , Yilmaz M., ULUĞ B.  
JOURNAL OF APPLIED PHYSICS, vol.111, 2012 (Journal Indexed in SCI)
- XXII. **Superprism effect in a deformed triangular sonic crystal**  
KAYA O. A. , Cicek A., Yilmaz M., ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.44, 2011 (Journal Indexed in SCI)
- XXIII. **Wide-band all-angle acoustic self-collimation by rectangular sonic crystals with elliptical bases**  
Cicek A., KAYA O. A. , ULUĞ B.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.44, 2011 (Journal Indexed in SCI)
- XXIV. **Focusing with two-dimensional angular-symmetric circular acoustic lenses**  
KAYA O. A. , Cicek A., ULUĞ B.  
ACOUSTICAL PHYSICS, vol.57, pp.292-300, 2011 (Journal Indexed in SCI)
- XXV. **Finite amplitude pressure field of elliptical and rhomboid transducers in three dimensions**  
KAYA O. A. , KALECİ D., ŞAHİN A.  
ACOUSTICAL PHYSICS, vol.57, pp.127-135, 2011 (Journal Indexed in SCI)
- XXVI. **Frequency-controlled wave focusing by a sonic crystal lens**  
ALAGÖZ S., KAYA O. A. , ALAGÖZ B. B.  
APPLIED ACOUSTICS, vol.70, pp.1400-1405, 2009 (Journal Indexed in SCI)
- XXVII. **Pressure field of rectangular transducers at finite amplitude in three dimensions**  
Kaya O. A. , SAHİN A., KALECİ D.  
ULTRASOUND IN MEDICINE AND BIOLOGY, vol.32, pp.271-280, 2006 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Acoustic Field Calculation on Linux Cluster**  
KALECİ D., KAYA O. A. , ŞAHİN A.  
Balkan Physics Letters, pp.215-219, 2008 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Surface Modification Of Y<sub>1</sub>g By Magnet Array,**  
BAKIR H. G. , KOLAT V. S. , İZGİ T., KAYA A. O. , KAYA O. A. , GENÇER H., ATALAY S.  
European Conference On Surface Science, 31 August - 04 September 2014
- II. **Polarization-Independent Self-Collimated Beam Splitting in Two-Dimensional Photonic Crystals**  
YÜCEL M. B. , KAYA O. A. , Cicek A., ULUĞ B.  
12th International Conference on Numerical Simulation of Optoelectronic Devices (NUSOD), Shanghai, China, 28 - 31 August 2012, pp.41-42

## Supported Projects

KAYA O. A. , TUBITAK Project, Magnonik Kristaller 112T820, 2013 - 2015

## Citations

Total Citations (WOS):282

h-index (WOS):10