

# Prof. İSMAİL ATILGAN

## Personal Information

**Office Phone:** [+90 444 0 478](tel:+904440478) Extension: 7117

**Email:** [atilgan@karabuk.edu.tr](mailto:atilgan@karabuk.edu.tr)

**Web:** <https://avesis.karabuk.edu.tr/atilgan>

## Education Information

Doctorate, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik, Turkey 1986 - 1993

Post Graduate, Orta Doğu Teknik Üniversitesi, Ulaştırma Mühendisliği, Fizik (YI) (Tezli), Turkey 1984 - 1986

Under Graduate, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik, Turkey 1978 - 1984

## Foreign Languages

English, A1 Beginner

## Research Areas

Natural Sciences, Engineering and Technology

## Academic Titles / Tasks

Professor, Karabük Üniversitesi, Mühendislik Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, 2011 - Continues

Assistant Professor, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik, 1997 - 2011

## Professional Experience

University Executive Board Member, Karabük Üniversitesi, Mühendislik Fakültesi, 2012 - Continues

## Advising Theses

ATILGAN İ., Production of hydrogenated nanocrystalline silicon based thin film transistor, Doctorate, T.ALIYEVA(Student), 2010

ATILGAN İ., Effect of localized states on the photocurrent in amorphous silicon alloys, Post Graduate, M.BAHADIR(Student), 2009

ATILGAN İ., Production of boron nitride, Post Graduate, E.ÖZKOL(Student), 2008

ATILGAN İ., The effects of carbon content on the properties of plasma deposited amorphous silicon carbide thin films, Doctorate, K.SEL(Student), 2007

ATILGAN İ., Production of light emitting pin diodes based on the plasma deposited amorphous silicon carbide films, Post Graduate, K.SEL(Student), 2002

ATILGAN İ., Density of states distribution of hydrogenated amorphous silicon pin diode through optoelectronic measurements, Post Graduate, O.SEZER(Student), 2001

ATILGAN İ., Effects of illumination on hydrogenated amorphous silican based junctions, Post Graduate, H.ATMACAN(Student), 1998

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

- I. **SEM, EDX spectroscopy and real-time optical microscopy of electroformed silicon nitride-based light emitting memory device**  
ANUTGAN M., ANUTGAN T., ATILGAN İ.  
EPJ Applied Physics, vol.89, 2020 (Journal Indexed in SCI Expanded)
- II. **Dual-mechanism modelling of instability in nanocrystalline silicon thin film transistors under prolonged gate-bias stress**  
ANUTGAN T., ANUTGAN M., ATILGAN İ.  
THIN SOLID FILMS, vol.651, pp.145-150, 2018 (Journal Indexed in SCI)
- III. **Electroformed silicon nitride based light emitting memory device**  
ANUTGAN T., ANUTGAN M., ATILGAN İ., Katircioglu B.  
APPLIED PHYSICS LETTERS, vol.111, 2017 (Journal Indexed in SCI)
- IV. **IMPROVEMENT OF SELECTIVE COPPER EXTRACTION FROM A HEAT-TREATED CHALCOPYRITE CONCENTRATE WITH ATMOSPHERIC SULPHURIC-ACID LEACHING**  
Uzun E., Zengin M., ATILGAN İ.  
MATERIALI IN TEHNOLOGIJE, vol.50, pp.395-401, 2016 (Journal Indexed in SCI)
- V. **Electroforming of Amorphous Silicon Nitride Heterojunction pin Visible Light Emitter**  
ANUTGAN M., ANUTGAN T., ATILGAN İ., Katircioglu B.  
IEEE TRANSACTIONS ON ELECTRON DEVICES, vol.58, pp.2537-2543, 2011 (Journal Indexed in SCI)
- VI. **Photoluminescence analyses of hydrogenated amorphous silicon nitride thin films**  
ANUTGAN M., ANUTGAN T., ATILGAN İ., Katircioglu B.  
JOURNAL OF LUMINESCENCE, vol.131, pp.1305-1311, 2011 (Journal Indexed in SCI)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Transmission Electron Microscope Analysis of PECVD Grown Electroformed Silicon Nitride-Based Light Emitting Diode**  
ANUTGAN T., ANUTGAN M., ATILGAN İ.  
ICANS 28 2019, 4 - 09 August 2019
- II. **Electroformed silicon nitride-based light emitting memory device investigated by SEM, EDX and real-time optical microscopy analyses**  
ANUTGAN M., ANUTGAN T., ATILGAN İ.  
ICANS28 2019, 4 - 09 August 2019
- III. **Frequency-dependent error of forward bias capacitance spectroscopy in the density of states calculation of semiconductor diodes**  
ATILGAN İ., ANUTGAN M., ANUTGAN T.  
International Conference on Science, Technology, Engineering and Management (ICSTEM), 16 - 17 December 2017
- IV. **Two-stage instability mechanism in nanocrystalline silicon TFTs under prolonged gate-bias stress**  
ANUTGAN T., ANUTGAN M., ATILGAN İ.  
27th International Conference on Amorphous and Nanocrystalline Semiconductors (ICANS 27), 21 - 25 August 2017
- V. **Temporary sub-band transport level in nanocrystalline silicon nitride light emitting memory device**  
ANUTGAN M., ANUTGAN T., ATILGAN İ.  
27th International Conference on Amorphous and Nanocrystalline Semiconductors (ICANS 27), 21 - 25 August 2017

- VI. **Comparison of negative capacitance phenomenon in ordinary amorphous and electroformed nanocrystalline silicon based LEDs**  
ANUTGAN M., ANUTGAN T., ATILGAN İ.  
Applied Nanotechnology and Nanoscience International Conference 2016, 9 - 11 November 2016
- VII. **Memory effect in electroformed nanocrystal siliconnitride based thin film LED**  
ANUTGAN T., ANUTGAN M., ATILGAN İ.  
Applied Nanotechnology and Nanoscience International Conference 2016, 9 - 11 November 2016
- VIII. **Synthesis and Characterization of SiO<sub>2</sub> Films Coated on Stainless Steel by Sol-Gel Method**  
GÜNGÖR A., DEMİRTAŞ H., Atılgan İ., Yaşar M.  
I. Internation Iron and Steel Symposium, Karabük, Turkey, 2 - 04 April 2012, pp.694-699
- IX. **Hidrojenlenmiş Nanokristal Silisyum Tabanlı İnce Film Transistörün Sığa Voltaj Ölçümleriyle İncelenmesi**  
ANUTGAN T., ANUTGAN M., ATILGAN İ., katırcıoğlu b.  
17. Yoğun Madde Fiziği Ankara Toplantısı, Turkey, 05 November 2010, pp.16

## Supported Projects

ATILGAN İ., Project Supported by Higher Education Institutions, İnce Film Transistör Üretimi İçin Fotolitografik Süreçlerin Geliştirilmesi, 2018 - 2020

ATILGAN İ., ARSLAN D., Project Supported by Higher Education Institutions, Kalkopirit Konsantresinin Pasif Yüzeyinin Isıl İşlem ile Aktifleştirme Parametrelerinin Belirlenmesi, 2016 - 2020

ATILGAN İ., Project Supported by Higher Education Institutions, Comparative Study On The Success Of A New Capacitance Spectroscopy Method For Diode Characterization, 2017 - 2018

ATILGAN İ., Project Supported by Higher Education Institutions, Geleneksel Sinterleme Yöntemiyle SnSe Termoelektrik Malzeme Üretimi ve Veriminin Araştırılması, 2017 - 2017

ATILGAN İ., Project Supported by Higher Education Institutions, KALKOPİRİT KONSANTRESİNDEN KATODİK BAKIR ELDESİ İÇİN HİDROMETALURJİK PROSES GELİŞTİRİLMESİ, 2014 - 2014

ATILGAN İ., Project Supported by Higher Education Institutions, SİLİSYUM TABANLI İNCE FİMLERİN HAZIRLANMASI VE OPTİK ÖZELLİKLERİNİN BELİRLENMESİ, 2012 - 2013

## Citations

Total Citations (WOS):26

h-index (WOS):2