

## Asst. Prof. RASİM VOLGA OVALI

### Personal Information

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### International Researcher IDs

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Yoksis Researcher ID: 37335

### Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Fizik, Turkey 2004 - 2010

Postgraduate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Fizik, Turkey 2002 - 2004

Undergraduate, Ihsan Dogramaci Bilkent University, Faculty Of Science, Fizik, Turkey 1998 - 2002

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Boron Nitrür ve Grafen İki Boyutlu Nanoyapıların Temel Prensipler Metodu ile İncelenmesi, Recep Tayyip Erdogan University, Mühendislik Ve Fen Bilimleri Enstitüsü, Fizik, 2010

Postgraduate, Temel Prensipler Hesabı ile Metallerin Yüksek Basınç Özellikleri: Örnek Olarak Altın Metali, Ihsan Dogramaci Bilkent University, Mühendislik Ve Fen Bilimleri Enstitüsü, Fizik, 2004

### Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Equations of State, Phase Equilibria, and Phase Transitions, Mechanical and Acoustic Properties of Condensed Matter, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electronic structure of bulk material, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Fizik Bölümü, 2019 - Continues

Assistant Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Malzeme Bilimi Ve Nanoteknoloji Mühendisliği Bölümü, 2018 - 2019

Assistant Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Malzeme Bilimi Ve Nanoteknoloji Mühendisliği Bölümü, 2013 - 2018

Assistant Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, 2012 - 2013

Instructor, Ihsan Dogramaci Bilkent University, Faculty Of Science, Fizik, 2011 - 2012

Research Assistant, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Fizik, 2002 - 2010

## Academic and Administrative Experience

Head of Department, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Malzeme Bilimi Ve Nanoteknoloji Mühendisliği Bölümü, 2013 - 2017

Recep Tayyip Erdogan University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2012 - 2013

## Courses

İstatistik Yöntemler, Undergraduate, 2021 - 2022

İstatistik Mekanik, Postgraduate, 2020 - 2021

Electric-Electronics, Undergraduate, 2020 - 2021

Physics, Undergraduate, 2021 - 2022

Fiziksel Risk Etmenleri, Postgraduate, 2021 - 2022

Bilgisayar Programlama, Undergraduate, 2021 - 2022

Fizikte Bilgisayar Programlama, Undergraduate, 2020 - 2021

Temel Prensipler Metodu Uygulamaları, Postgraduate, 2021 - 2022

Fizikte Yazılım Programları, Undergraduate, 2020 - 2021

İleri Katı Fizik, Postgraduate, 2020 - 2021

Nanomalzeme, Postgraduate, 2020 - 2021

Modern Fizik Kavramları, Undergraduate, 2020 - 2021

Temel Bilgi Teknolojileri, Undergraduate, 2020 - 2021

Makine Mühendisleri İçin Matlab Programlama, Postgraduate, 2019 - 2020

İleri Bilgisayar Programlama ve Yazılım, Undergraduate, 2019 - 2020

Bilgisayarlı Katı Modelleme ve Tasarım, Undergraduate, 2019 - 2020

Temel Bilgi Teknolojileri - TDE, Undergraduate, 2020 - 2021

Makine Mühendisleri İçin Simulink Uygulamaları, Postgraduate, 2019 - 2020

Uzmanlık Alan Dersi-I, Postgraduate, 2020 - 2021

Elektronik Yapı Modelleme, Postgraduate, 2020 - 2021

Olasılık ve İstatistik, Undergraduate, 2019 - 2020

## Advising Theses

Tomakin M., OVALI R. V., Katkılı boya duyarlı güneş pillerinin elektronik özelliklerinin hesaplanması, Postgraduate, A.Kara(Student), 2014

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

- I. **Single-molecule-resolution ultrafast near-field optical microscopy via plasmon lifetime extension**  
OVALI R. V., ŞAHİN R., BEK A., TAŞGIN M. E.  
APPLIED PHYSICS LETTERS, vol.118, no.24, 2021 (SCI-Expanded)
- II. **Quantum emitter interacting with graphene coating in the strong-coupling regime**  
Gunay M., Karanikolas V., ŞAHİN R., Ovali R. V., BEK A., TAŞGIN M. E.  
PHYSICAL REVIEW B, vol.101, no.16, 2020 (SCI-Expanded)
- III. **Viscous dissipation effects on entropy generation in heated vertical parallel-plate channels for mixed convection**

AKBULUT U., OVALI R. V., Kucuk H.

INTERNATIONAL JOURNAL OF EXERGY, vol.23, no.1, pp.1-17, 2017 (SCI-Expanded)

IV. **An experimental and first-principles study of the effect of B/N doping in TiO<sub>2</sub> thin films for visible light photo-catalysis**

UDDIN M. N., SHIBLY S. U. A., Ovali R. V., ISLAM S., MAZUMDER M. M. R., ISLAM M. S., UDDIN M. J., Gulseren O., Bengu E.

JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.254, pp.25-34, 2013 (SCI-Expanded)

V. **An experimental and theoretical examination of the effect of sulfur on the pyrolytically grown carbon nanotubes from sucrose-based solid state precursors**

Kucukayan G., Ovali R. V., Ilday S., Baykal B., Yurdakul H., Turan S., Gulseren O., Bengu E.

CARBON, vol.49, no.2, pp.508-517, 2011 (SCI-Expanded)

VI. **Theoretical and spectroscopic investigations on the structure and bonding in B-C-N thin films**

Bengu E., Genisel M. F., Gulseren O., Ovali R. V.

THIN SOLID FILMS, vol.518, no.5, pp.1459-1464, 2009 (SCI-Expanded)

VII. **Analysis of defects on BN nano-structures using high-resolution electron microscopy and density-functional calculations**

Bengu E., Marks L. D., Ovali R. V., Gulseren O.

ULTRAMICROSCOPY, vol.108, no.11, pp.1484-1489, 2008 (SCI-Expanded)

## Articles Published in Other Journals

I. **The fine spectral tuning of plasmon mode and quantum emitter coupling and its comparison with the dark-hot resonances**

Asif H., OVALI R. V., ŞAHİN R.

TURKISH JOURNAL OF PHYSICS, vol.46, no.2, pp.104-112, 2022 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

I. **Biyokömür Yakıtı Kullanılan Doğrudan Karbon Yakıt Pilinin Modellenmesi**

Nişancı F. G., Akgül G., Ovali R. V.

4th International Energy Engineering Congress, Gaziantep, Turkey, 24 - 25 October 2019

## Supported Projects

Ovali R. V., Taşgın M. E., TUBITAK Project, Uzun Ömürlü Kuantum Işıyıcı ile Tek-Molekül Çözünürlüklü Doğrusal-Olmayan Snom Görüntülemesi, 2021 - 2024

OVALI R. V., TUBITAK Project, Boya-Duyarlı Güneş Pillerinin Güç-Dönüşüm Verimliliğine Yabancı Atom Katılımının Etkileri: Temel Prensipler Çalışması, 2012 - 2015

## Patent

Tomakin M., Nevruzoğlu V., Yüzüak E., Eren H., Demir Y., Altuntaş M., Ovali R. V., Bir üriner sistem taş fragmantasyon yöntemi, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2019/02287 , Standard Registration, 2022

## Metrics

Publication: 9

Citation (WoS): 53

Citation (Scopus): 59

H-Index (WoS): 4

H-Index (Scopus): 4