

# **MD MEHMET GÖKHAN ŞENSOY**

## **Personal Information**

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## **Education Information**

Doctorate, Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik Bölümü, Turkey 2011 - 2017

Postgraduate, Balikesir University, Fen-Bilimleri Enstitüsü, Fizik Bölümü, Turkey 2008 - 2010

Undergraduate, Balikesir University, Necatibey Eğitim Fakültesi , Fizik Öğretmenliği, Turkey 2003 - 2008

## **Dissertations**

Doctorate, Ab initio modelling of materials properties for catalytic and device applications, Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik Bölümü, 2017

Postgraduate, Manyetik karakteristikteki malzemelerin manyetik alanda oluşturdukları anomali ile belirlenmesi ve oluşan anomaliye göre manyetik malzemenin karakterizasyonu, Recep Tayyip Erdogan University, Fen Bilimleri Enstitüsü, Fizik Bölümü, 2010

## **Research Areas**

Metallurgical and Materials Engineering, Material science and engineering, Nanomaterials, Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Surfaces, Interfaces, Thin Films and Nanosystems, Natural Sciences, Engineering and Technology

## **Academic Titles / Tasks**

Research Assistant PhD, Recep Tayyip Erdogan University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2017 - Continues  
Research Assistant, Middle East Technical University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2011 - 2017

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

- I. **Formaldehyde Selectivity in Methanol Partial Oxidation on Silver: Effect of Reactive Oxygen Species, Surface Reconstruction, and Stability of Intermediates**  
Karatok M., ŞENSOY M. G. , Vovk E., TOFFOLI H., Toffoli D., ÖZENSOY E.  
ACS CATALYSIS, vol.11, no.10, pp.6200-6209, 2021 (Journal Indexed in SCI)
- II. **Density Functional Theory Investigation of Oxidation Intermediates on Gold and Gold-Silver Surfaces**  
Sensoy M. G. , Montemore M. M.  
JOURNAL OF PHYSICAL CHEMISTRY C, vol.124, no.16, pp.8843-8853, 2020 (Journal Indexed in SCI)
- III. **First-principles investigation of CO and CO<sub>2</sub> adsorption on gamma-Al<sub>2</sub>O<sub>3</sub> supported monoatomic and diatomic Pt clusters**  
Sensoy M. G. , Ustunel H., Toffoli D.  
APPLIED SURFACE SCIENCE, vol.499, 2020 (Journal Indexed in SCI)

- IV. **Magnetic properties of the spin-5/2 Blume-Capel chain in a magnetic field**  
 Sensoy M. G., Bati M.  
 PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.113, pp.21-24, 2019 (Journal Indexed in SCI)
- V. **First-principles study of coupled effect of ripplocations and S-vacancies in MoS<sub>2</sub>**  
 Tritsaris G. A., Sensoy M. G., Shirodkar S. N., Kaxiras E.  
 JOURNAL OF APPLIED PHYSICS, vol.126, no.8, 2019 (Journal Indexed in SCI)
- VI. **The influence of vacancy-induced local strain on the transport properties in armchair and zigzag graphene nanoribbons**  
 Sensoy M. G.  
 MATERIALS RESEARCH EXPRESS, vol.6, no.4, 2019 (Journal Indexed in SCI)
- VII. **Accurate formation energies of charged defects in solids: A systematic approach**  
 Vinichenko D., Sensoy M. G., Friend C. M., Kaxiras E.  
 PHYSICAL REVIEW B, vol.95, no.23, 2017 (Journal Indexed in SCI)
- VIII. **Structural and electronic properties of bulk and low-index surfaces of zincblende PtC**  
 Sensoy M. G., TOFFOLI D., Ustunel H.  
 JOURNAL OF PHYSICS-CONDENSED MATTER, vol.29, no.12, 2017 (Journal Indexed in SCI)
- IX. **Strain effects on the behavior of isolated and paired sulfur vacancy defects in monolayer MoS<sub>2</sub>**  
 Sensoy M. G., Vinichenko D., Chen W., Friend C. M., Kaxiras E.  
 PHYSICAL REVIEW B, vol.95, no.1, 2017 (Journal Indexed in SCI)
- X. **New magnetic measurement system for determining metal covered mines by detecting magnetic anomaly using a sensor network**  
 Ege Y., KAKILLİ A., Citak H., KALENDER O., Nazlibilek S., Sensoy M. G.  
 INDIAN JOURNAL OF PURE & APPLIED PHYSICS, vol.53, no.3, pp.199-211, 2015 (Journal Indexed in SCI)
- XI. **A new wireless asynchronous data communications module for industrial applications**  
 Ege Y., Sensoy M. G., KALENDER O., Nazlibilek S., Citak H.  
 MEASUREMENT, vol.46, no.8, pp.2672-2681, 2013 (Journal Indexed in SCI)
- XII. **Identification of materials with magnetic characteristics by neural networks**  
 Nazlibilek S., Ege Y., KALENDER O., Sensoy M. G., Karacor D., Sazlı M. H.  
 MEASUREMENT, vol.45, no.4, pp.734-744, 2012 (Journal Indexed in SCI)
- XIII. **Numerical Analysis for Remote Identification of Materials With Magnetic Characteristics**  
 Ege Y., SENSOY M. G., KALENDER O., Nazlibilek S.  
 IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, vol.60, no.9, pp.3140-3152, 2011 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Ab initio atomistic thermodynamics modeling of adsorption of oxygen on gold and gold-silver surfaces**  
 Sensoy M. G.  
 TURKISH JOURNAL OF PHYSICS, vol.43, no.5, pp.502-515, 2019 (Journal Indexed in ESCI)
- II. **Investigation of Magnetic Properties of Spin 5/2 Ising Chain by Using Transfer Matrix Method**  
 SENSOY M. G., BATI M.  
 SAKARYA ÜNİVERSİTY JOURNAL OF SCIENCE, vol.22, no.6, pp.1, 2018 (National Refreed University Journal)
- III. **Investigation of Magnetic Properties of Spin 5/2 Ising Chain by Using Tranfer Matrix Method**  
 SENSOY M. G., BATI M.  
 Sakarya University Journal of Science, vol.22, no.6, pp.1901-1906, 2018 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of Adsorption Properties of Oxidation Intermediates on Ag(111) Surface: A Density Functional Theory Study**  
ŞENSOY M. G.  
2nd International Conference on Physical Chemistry and Functional Materials (PCFM'19), Nevşehir, Turkey, 25 - 27 June 2019
- II. **First-principles investigation of O, CO, CH<sub>3</sub>O and OH adsorption on gold-silver surfaces**  
ŞENSOY M. G.  
National Catalysis Conference-7, Denizli, Turkey, 9 - 12 September 2018
- III. **Magnetic properties and plateaus behavior of the spin-5/2 chain compounds: A Blume-Capel model**  
BATI M., ŞENSOY M. G.  
34th International Physics Conference of Turkish Physical Society, Muğla, Turkey, 5 - 09 September 2018, pp.541
- IV. **Magnetic properties and plateaus behavior of the spin-5/2 chain compounds: A Blume-Capel model**  
BATI M., ŞENSOY M. G.  
34th International Physics Conference of Turkish Physical Society, Muğla, Turkey, 5 - 09 September 2018, pp.541
- V. **Density Functional Theory Investigation of the Structural, Electronic and Adsorption Properties of (100), (110) and (111)Surfaces of Zincblende PtC**  
ŞENSOY M. G. , TOFFOLİ H., TOFFOLI D.  
NanoTR-11, Ankara, 23 - 25 June 2015
- VI. **Density Functional Theory Investigation of Adsorption Properties of CO, CO<sub>2</sub> and H<sub>2</sub>O on gamma-Al<sub>2</sub>O<sub>3</sub> Supported Pt Clusters**  
ŞENSOY M. G. , TOFFOLİ H., TOFFOLI D.  
APS March Meeting, 3 - 07 March 2014
- VII. **Density functional theory investigation of CO, CO<sub>2</sub> and H<sub>2</sub>O activation on gamma-Al<sub>2</sub>O<sub>3</sub> Supported Pt Clusters**  
ŞENSOY M. G. , TOFFOLİ H., TOFFOLI D.  
NanoTR-9, Erzurum, 24 - 28 June 2013

## Scientific Refereeing

Journal of Physics Communications, SCI Journal, July 2017

## Citations

Total Citations (WOS):79

h-index (WOS):4

## Scholarships

Yurt Dışı Doktora Sırası Araştırma Burs Programı, TUBITAK, 2015 - Continues

## Awards

ŞENSOY M. G. , Bölüm Birinciliği, Balıkesir Üniversitesi, June 2010