

Asst. Prof. ALİ EMRE GENÇ

Personal Information

Office Phone: [+90 312 202 1543](tel:+903122021543)

Email: aegenc@gazi.edu.tr

Other Email: aegenc@gmail.com

Web: <https://avesis.gazi.edu.tr/aegenc>

International Researcher IDs

ORCID: 0000-0001-9567-2018

Yoksis Researcher ID: 134468

Education Information

Doctorate, Gazi University, Fen Fakültesi, Fizik, Turkey 2012 - 2019

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 2008 - 2011

Foreign Languages

English, C2 Mastery

Research Areas

Atomic and Molecular Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Computational Chemistry, Fuel Cells, Surface Chemistry, Catalysis

Academic Titles / Tasks

Assistant Professor, Gazi University, Fen Fakültesi, Fizik, 2023 - Continues

Research Assistant, Gazi University, Fen Fakültesi, Fizik Bölümü, 2009 - 2023

Courses

Physics-Electric and Magnetism, Undergraduate, 2022 - 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The activation of B-H bonds in borohydride on Cu(100) and Cu (110) surfaces**
Akca A., Genc A. E., Kutlu B.
COMPUTATIONAL AND THEORETICAL CHEMISTRY, vol.1203, 2021 (SCI-Expanded)
- II. **Hydrazine decomposition on nickel-embedded graphene**
GENÇ A. E., KÜÇÜK H., ALP İ., Akca A.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.45, no.58, pp.33407-33418, 2020 (SCI-Expanded)

III. **BH₄ dissociation on various metal (111) surfaces: A DFT study**

Akca A., Genc A. E., Kutlu B.

APPLIED SURFACE SCIENCE, vol.473, pp.681-692, 2019 (SCI-Expanded)

IV. **The catalytic effect of the Au(111) and Pt(111) surfaces to the sodium borohydride hydrolysis reaction mechanism: A DFT study**

Genc A. E., Akca A., KUTLU B.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.31, pp.14347-14359, 2018 (SCI-Expanded)

V. **The estimation of a $(kT(C)(p)/J, p)$ phase diagram for a two-dimensional site-diluted Ising model using a microcanonical algorithm**

KUTLU B., GENÇ A. E.

PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.392, no.3, pp.451-457, 2013 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Catalytic activity Au(210) surface for sodium and Lithium borohydride hydrolysis reactions: A DFT study.**

GENÇ A. E., AKÇA A., KUTLU B.

International Symposium on Chemistry and Computation, İstanbul, Turkey, 30 October 2017, pp.65-66

II. **CATALYTIC ACTIVITY OF LOW-INDEX Au(111), Au(100) AND Au(110) HIGH-INDEX Au(210) SURFACES FOR SODIUM BOROHYDRIDE HYDROLYSIS REACTION**

GENÇ A. E., AKÇA A., KUTLU B.

TFD33, Muğla, Turkey, 6 - 10 September 2017

III. **dft studt of the hydroxyl ion co-adsorbtion effect on Pt(111)and Au(111) surfaces to sodium borohydride hydrolysis reaction**

GENÇ A. E., AKÇA A., KUTLU B.

TFD33, Muğla, Turkey, 6 September - 10 June 2017

IV. **Catalitic activity of Pt(111)and Au(111)Surface on sodium borohydride hydrolysis: a dft study**

AKÇA A., GENÇ A. E., KUTLU B.

TFD33, Muğla, Turkey, 6 - 10 September 2017

V. **Catalysis of sodium borohydride in non catalayed solution**

GENÇ A. E., KUTLU B.

TURKISH PHYSICAL SOCIETY 32. INTERNATIONAL PHYSICS CONGRESS, 6 - 09 September 2016, vol.1, pp.134

VI. **NaBH₄ Hidrolizinde Au 111 Yüzeyininin Katalitik Etkisis**

GENÇ A. E., KUTLU B.

21. Yoğun Madde Fiziği Ankara Toplantısı, Turkey, 25 December 2015

Supported Projects

Genç A. E., Tranca I. C., H2020 Project, High-throughput computational screening of materials for high-temperatures heat storage, 2020 - 2021

Metrics

Publication: 11

Citation (WoS): 25

Citation (Scopus): 27

H-Index (WoS): 3

H-Index (Scopus): 3