

## Asst. Prof. ALİ İHSAN KILIÇ

### Personal Information

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### Education Information

Post Doctorate, The Czech Academy of Science , Department of Nuclear Reactions, Physics, Czech Republic 2018 - 2020

Post Doctorate, University of Guelph, Department of Physics and TRIUMF, Nuclear Physics, Canada 2016 - 2018

Doctorate, The University of Szczecin-Poland collaborations with Technical University of Berlin, Department of Nuclear Physics, Physics, Poland 2009 - 2015

Postgraduate, Gazi University, Fen Fakültesi, Fizik, Turkey 2002 - 2005

Undergraduate, Erciyes University, Fen Fakültesi, Fizik , Turkey 1996 - 2001

### Foreign Languages

English, C2 Mastery

Polish, C1 Advanced

### Research Areas

Physics, Nuclear physics, General Nuclear Reactions, Nuclear Structure, Nuclear Engineering and Nuclear Energy Studies, Special nuclear reactions, Experimental Methods of Particle and Nuclear Physics, Radioactive decay and in-beam spectroscopy, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, FİZİK BÖLÜMÜ, 2022 - Continues

Researcher, The University of Szczecin, Institute of Physics, Physics, 2023 - 2023

Researcher, The Czech Academy of Science, Department of Nuclear Reactions, Physics, 2018 - 2020

Researcher, University of Guelph, Department of Physics and TRIUMF , Nuclear Physics, 2016 - 2018

Researcher, University of Szczecin, Institute of Physics, Physics, 2009 - 2015

Researcher, Gazi University, Fen Fakültesi, Fizik, 2002 - 2005

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

- I. Analysis of astrophysical  $^{26}\text{Mg}(n,\gamma)^{27}\text{Mg}$  reaction via the asymptotic normalization coefficient method**  
Kılıç A. İ.  
Modern Physics Letter A, vol.146, no.ISSN: 0217-7323, pp.23501881-235018812, 2024 (SCI-Expanded)
- II. The Investigation of the  $^8\text{Li}(\alpha, n)^{11}\text{B}$  Cross Section at Low Energy by a Distorted Wave Born Approximation Model**

Kiliç A. I.

PHYSICS OF PARTICLES AND NUCLEI LETTERS, vol.20, pp.1335-1341, 2023 (SCI-Expanded)

- III. **Direct measurement of the  $^{19}\text{F}(p, \alpha)^{16}\text{O}$  reaction at  $E_{\text{cm}} = 0.4\text{--}0.9$  MeV using the LHASA detector array**  
Guardo G., Petruse T., Lattuada D., La Cognata M., Balabanski D., Açiksöz E., Acosta L., Capponi L., Carbone D., Cherubini S., et al.  
European Physical Journal A, vol.59, no.3, 2023 (SCI-Expanded)
- IV. **Population of Excited States in Ti-45 Nuclei in Charge Exchange Reactions in a 29-MeV He-3 Beam**  
Skobelev N. K., Penionzhkevich Y. E., Sivacek I., Issatayev T., D'Adata G., Burjan V., Kiliç A. İ., Mrazek J., Glagolev V.  
PHYSICS OF PARTICLES AND NUCLEI, vol.53, no.2, pp.382-386, 2022 (SCI-Expanded)
- V. **Proton inelastic scattering reveals deformation in He-8**  
Holl M., Kanungo R., Sun Z. H., Hagen G., Lay J. A., Moro A. M., Navratil P., Papenbrock T., Alcorta M., Connolly D., et al.  
PHYSICS LETTERS B, vol.822, 2021 (SCI-Expanded)
- VI. **Si-26(p, gamma) P-27 direct proton capture by means of the asymptotic normalization coefficients method for mirror nuclei**  
D'Agata G., Kiliç A. İ., Burjan V., Mrazek J., Glagolev V., Kroha V., Guardo G. L., La Cognata M., Lamia L., Palmerini S., et al.  
PHYSICAL REVIEW C, vol.103, no.1, 2021 (SCI-Expanded)
- VII. **Material-dependent d plus d cross-section in dense and metallic mesh wire environments at very low energies**  
Kiliç A. İ., Kustan F. K.  
MODERN PHYSICS LETTERS A, vol.34, no.29, 2019 (SCI-Expanded)
- VIII. **Shape coexistence in the neutron-deficient lead region: A systematic study of lifetimes in the even-even Hg188-200 with the GRIFFIN spectrometer at TRIUMF**  
Olaizola B., Garnsworthy A. B., Ali F. A., Andreoiu C., Ball G. C., Bernier N., Bidaman H., Bildstein V., Bowry M., Caballero-Folch R., et al.  
PHYSICAL REVIEW C, vol.100, no.2, 2019 (SCI-Expanded)
- IX. **The GRIFFIN facility for Decay-Spectroscopy studies at TRIUMF-ISAC**  
Garnsworthy A. B., Svensson C. E., Bowry M., Dunlop R., MacLean A. D., Olaizola B., Smith J. K., Ali F. A., Andreoiu C., Ash J. E., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.918, pp.9-29, 2019 (SCI-Expanded)
- X. **Testing microscopically derived descriptions of nuclear collectivity: Coulomb excitation of Mg-22**  
Henderson J., Hackman G., Ruotsalainen P., Stroberg S. R., Launey K. D., Holt J. D., Ali F. A., Bernier N., Bentley M. A., Bowry M., et al.  
PHYSICS LETTERS B, vol.782, pp.468-473, 2018 (SCI-Expanded)
- XI. **ELECTRON SCREENING EFFECT IN NUCLEAR REACTIONS IN METALLIC AND GASEOUS TARGETS**  
Targosz-Slecza N., Czerski K., Kaczmarek M., Weissbach D., Kiliç A. İ., Ruprecht G., Huke A., Policastro S.  
ACTA PHYSICA POLONICA B, vol.49, no.3, pp.675-680, 2018 (SCI-Expanded)
- XII. **THRESHOLD RESONANCE CONTRIBUTION TO THE THICK TARGET H-2 (d, p)(3) H REACTION YIELD**  
Kaczmarek M., Czerski K., Weissbach D., Kiliç A. İ., Ruprecht G., Huke A.  
ACTA PHYSICA POLONICA B, vol.48, no.3, pp.489-493, 2017 (SCI-Expanded)
- XIII. **Screening and resonance enhancements of the H-2(d, p)H-3 reaction yield in metallic environments**  
Czerski K., Weissbach D., Kiliç A. İ., Ruprecht G., Huke A., Kaczmarek M., Targosz-Slecza N., Maass K.  
EPL, vol.113, no.2, 2016 (SCI-Expanded)
- XIV. **NEW ACCELERATOR FACILITY FOR MEASUREMENTS OF NUCLEAR REACTIONS AT ENERGIES BELOW 1 keV**  
Kaczmarek M., Kiliç A. İ., Czerski K., Kowalska A., Weissbach D., Targosz-Slecza N., Huke A., Ruprecht G.  
ACTA PHYSICA POLONICA B, vol.45, no.2, pp.509-518, 2014 (SCI-Expanded)
- XV. **Experiments on screening effect in deuteron fusion reactions at extremely low energies**

Targosz-Slecza N., Czernski K., Huke A., Ruprecht G., Weissbach D., Martin L., Kilic A. İ., Kaczmarzski M., Winter H. EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.222, no.9, pp.2353-2359, 2013 (SCI-Expanded)

XVI. **ISOSPIN SYMMETRY BREAKING AND BRANCHING RATIO IN THE DEUTERON REACTIONS AT VERY LOW ENERGIES**

Kilic A. İ., Czernski K., Heide P., Huke A., Ruprecht G., Targosz-Slecza N.

INTERNATIONAL JOURNAL OF MODERN PHYSICS E-NUCLEAR PHYSICS, vol.20, no.2, pp.576-581, 2011 (SCI-Expanded)

XVII. **DYNAMIC ELECTRON SCREENING IN NUCLEAR REACTIONS AND ALPHA DECAYS**

Czernski K., Heide P., Huke A., Kilic A. İ., Kulesza I., Targosz-Slecza N.

ACTA PHYSICA POLONICA B, vol.40, no.3, pp.903-907, 2009 (SCI-Expanded)

## Articles Published in Other Journals

I. **NUCLEAR ASYMPTOTIC NORMALIZATION COEFFICIENT FOR  $^{27}\text{Al} \rightarrow ^{26}\text{Mg} + p$  REACTION**

Kılıç A. İ.

Eskişehir Teknik Üniversitesi Bilim ve Teknoloji Dergisi b- Teorik Bilimler, vol.11, no.2, pp.116-124, 2023 (Peer-Reviewed Journal)

II. **Study of the  $^{12}\text{C} + ^{16}\text{O}$  fusion via the Trojan Horse Method**

Kılıç A. İ.

IL NUOVO CIMENTO DELLA SOCIETÀ ITALIANA DI FISICA. C, vol.45, no.45, pp.119-123, 2022 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

I. **Study of the  $^{12}\text{C} + ^{16}\text{O}$  fusion reaction in carbon burning via the Trojan Horse Method**

Oliva A. A., Tumino A., Soic N., Prajapati P. M., Acosta L., Alba R., Cherubini F. B. S., D'Agata G., Dell'Aquila D., Di Pietro A., et al.

10th Conference on Nuclear Physics in Astrophysics (NPA), Geneva, Switzerland, 5 - 09 September 2022

II. **ANC experiments for nuclear astrophysics: the  $^{26}\text{Si}(p, \gamma)^{27}\text{P}$  case**

D'Agata G., Kilic A. İ., Burjan V., Mrazek J., Glagolev V., Kroha V., Cassisa A., Guardo L., La Cognata M., Lamia L., et al.  
10th Conference on Nuclear Physics in Astrophysics (NPA), Geneva, Switzerland, 5 - 09 September 2022

III. **ANC experiments for nuclear astrophysics**

D'Agata G., Burjan V., Mrazek J., Glagolev V., Kilic A. İ., Kroha V., La Cognata M., Lamia L., Palmerini S., Piskor S., et al.  
10th European Summer School on Experimental Nuclear Astrophysics, Catania, Italy, 16 - 23 June 2019, vol.227

IV. **Preliminary results for the  $^{19}\text{F}(p, \alpha)^{16}\text{O}$  reaction cross section measured at INFN-LNS**

Petruse T., Guardo G. L., La Cognata M., Lattuada D., Spitalieri C., Balabanski D. L., Aciksoz E., Acosta L., Capponi L., Carbone D., et al.

10th European Summer School on Experimental Nuclear Astrophysics, Catania, Italy, 16 - 23 June 2019, vol.227

V. **Material dependence of  $^2\text{H}(d, p)^3\text{H}$  cross section at the very low energies**

Kilic A. İ., Czernski K., Kustan-Kilic F., Targosz-Slecza N., Weissbach D., Huke A., Ruprecht G.

3rd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT), Adana, Turkey, 10 - 12 May 2017

VI. **NEW EXPERIMENTAL CONSTRAINTS ON THE ELECTRON SCREENING EFFECT IN ASTROPHYSICAL PLASMA**

Kılıç A. İ.

Proceedings, 13th International Symposium on Nuclei in the Cosmos (NIC XIII), Debrecen, Hungary, 07 July 2014 - 14 December 2023, pp.1-5

VII. **Influence of the target surface contamination on UHV screening energies**

Targosz-Sleczka N., Czerski K., Huke A., Martin L., Heide P., Kilic A. I., Blauth D., Winter H.  
4th International Conference on Nuclear Physics in Astrophysics, Frascati, Italy, 8 - 12 June 2009, vol.202