

Asst. Prof. AHMET EMİN ATİK

Personal Information

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International Researcher IDs

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Biography

Dr. Ahmet Emin Atik received his BSc and MSc in Chemistry from the İzmir Institute of Technology (IZTECH) in 2005 and 2007, respectively. He earned his PhD in 2013 in gas-phase fragmentation chemistry of peptide ions using mass spectrometry from IZTECH under the supervision of Professor Talat Yalcin. During his graduate years, he worked as a research and teaching assistant at the same university for eight years.

In 2012, he was appointed as a visiting fellow in the research group of Professor Philippe Maître at Université Paris-Sud XI (France) for three months. In Maître's group, he focused on the gas-phase structures of acetylated peptide ions via infrared multiphoton dissociation (IRMPD). Between 2013 and 2015, he was a postdoctoral researcher in the Biological Mass Spectrometry Laboratory in the Department of Chemistry at IZTECH.

Dr. Atik joined Turgut Pharmaceuticals in 2015 as a Protein Analysis Specialist. After one year, he became the Head of Protein Analytics at the same company. In 2020, he was promoted to the Quality Control Manager position in the Biotechnology Department of Turgut Pharmaceuticals. He has over 18 years of experience in mass spectrometric characterization of peptides and proteins. His current research focuses on the physicochemical and functional characterization of monoclonal antibodies (mAbs) with state-of-the-art analytical techniques.

He is working as a Quality Control Manager at Turgut Pharmaceuticals and as an Assistant Professor in the Department of Natural Sciences at Acibadem University.

Education Information

Post Doctorate, Izmir Institute Of Technology, Faculty Of Science, Department Of Chemistry (English), Turkey 2013 - 2015

Doctorate, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Department of Chemistry, Turkey 2007 - 2013

Postgraduate, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Department of Chemistry, Turkey 2005 - 2007

Undergraduate, Izmir Institute Of Technology, Faculty Of Science, Department Of Chemistry (English), Turkey 2001 -

2005

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Occupational Health and Safety, Temel İş Güvenliği Eğitimi, Turgut İlaçları A.Ş., 2023

Vocational Training, Farmakovijilans Eğitimi, DeltaPV, 2023

Dissertations

Doctorate, Studies of gas-phase fragmentation mechanisms of peptide b ions by mass spectrometry, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Chemistry Department, 2013

Postgraduate, A proteomic approach for identifying boron-stress tolerant proteins in barley genotypes, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Department of Chemistry, 2007

Research Areas

Life Sciences, Biotechnology, Chemistry, Mass Spectroscopy

Academic Titles / Tasks

Assistant Professor, Acibadem Mehmet Ali Aydınlar University, Faculty Of Engineering and Natural Sciences, Basic Sciences, 2021 - Continues

Research Assistant, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Chemistry Department, 2005 - 2013

Courses

Selected Topics in Biological Mass Spectrometry, Doctorate, 2023 - 2024, 2021 - 2022, 2020 - 2021

General Chemistry, Undergraduate, 2022 - 2023, 2021 - 2022

General Chemistry 1, Undergraduate, 2022 - 2023, 2021 - 2022

Selected Topics in Biological Mass Spectrometry, Postgraduate, 2021 - 2022

Basic Chemistry 1, Undergraduate, 2022 - 2023, 2021 - 2022

Advising Theses

Atik A. E., Assessment of physicochemical quality of monoclonal antibody based drugs at thermal stress and stability conditions, Postgraduate, C.Pamukcu(Student), 2023

Jury Memberships

Doctorate, Doctorate, Acibadem Mehmet Ali Aydınlar Üniversitesi, July, 2024

Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, August, 2023
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2023
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, December, 2022
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, November, 2022

Taught Courses And Trainings

Atik A. E., ISPE Emerging Leaders Biyoteknoloji Konferansı, 2022 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Gas-phase fragmentation reactions of a(7) ions containing a glutamine residue**
ATİK A. E., Arslanoglu A., Yalcin T.
JOURNAL OF MASS SPECTROMETRY, vol.56, no.8, 2021 (SCI-Expanded)
- II. **Observation of the side chain O-methylation of glutamic acid or aspartic acid containing model peptides by electrospray ionization-mass spectrometry**
Atik A. E., Guray M. Z., Yalcin T.
JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES, vol.1047, pp.75-83, 2017 (SCI-Expanded)
- III. **Gas-phase structures and proton affinities of N-terminal proline containing b(2)(+) ions from protonated model peptides**
Karaca S., Atik A. E., Elmaci N., Yalcin T.
INTERNATIONAL JOURNAL OF MASS SPECTROMETRY, vol.393, pp.1-8, 2015 (SCI-Expanded)
- IV. **Specific rearrangement reactions of acetylated lysine containing peptide b(n) (n=4-7) ion series**
Atik A. E., Hernandez O., Maitre P., Yalcin T.
JOURNAL OF MASS SPECTROMETRY, vol.49, no.12, pp.1290-1297, 2014 (SCI-Expanded)
- V. **Protonated Dipeptide Losses from b(5) and b(4) Ions of Side Chain Hydroxyl Group Containing Pentapeptides**
Atik A. E., Yalcin T.
JOURNAL OF THE AMERICAN SOCIETY FOR MASS SPECTROMETRY, vol.24, no.10, pp.1543-1554, 2013 (SCI-Expanded)
- VI. **The role of lysine epsilon-amine group on the macrocyclization of b ions**
Atik A. E., Gorgulu G., Yalcin T.
INTERNATIONAL JOURNAL OF MASS SPECTROMETRY, vol.316, pp.84-90, 2012 (SCI-Expanded)
- VII. **Proteomic changes during boron tolerance in barley (Hordeum vulgare) and the role of vacuolar proton-translocating ATPase subunit E**
ATIK A. E., BOZDAG G. O., Akinci E., KAYA A., KOC A., YALCIN T., KARAKAYA H. C.
TURKISH JOURNAL OF BOTANY, vol.35, no.4, pp.379-388, 2011 (SCI-Expanded)
- VIII. **A Systematic Study of Acidic Peptides for b-Type Sequence Scrambling**
Atik A. E., Yalcin T.
JOURNAL OF THE AMERICAN SOCIETY FOR MASS SPECTROMETRY, vol.22, no.1, pp.38-48, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Effects of thermal treatment on quality of biosimilar and originator monoclonal antibodies**
Erdemgil Y., Yamacı M. Ç., Pamukcu C., Ünalp F., Yıldırım Keleş Z. Z., Atik A. E., SERDAR M. A.
Advances in Sample Preparation, vol.10, 2024 (Scopus)
- II. **Comparative Analysis of Glycoform Profiles Between Biosimilar and Originator Monoclonal**

Antibodies by Liquid Chromatography–Mass Spectrometry

Atik A. E.

Journal of the Turkish Chemical Society, Section A: Chemistry, vol.11, no.1, pp.365-376, 2024 (Peer-Reviewed Journal)

III. Physicochemical and Functional Characterization of a Candidate Adalimumab Biosimilar TUR01

Atik A. E., Demirhan D., Alpan R. S.

25th European Society for Animal Cell Technology Meeting, BMC Proceedings , vol.12, pp.13, 2018 (Conference Book)

Books & Book Chapters

I. Nanoanalytic: Quantitative Analytical Tools That Give an Idea of How Does the Cell Act at the Molecular Level

Atik A. E.

in: Nanobiyoteknoloji, Prof. Dr. Ata Akın, Editor, Türkiye Klinikleri Yayınevi, Ankara, pp.1-5, 2021

Refereed Congress / Symposium Publications in Proceedings

I. Characterization of Lysine Glycation in Protein Therapeutics by Mass Spectrometry

Atik A. E.

5th Turkish National Proteomics Congress, Ankara, Turkey, 13 - 14 October 2023, pp.18

II. Biosimilarity Demonstration with Orthogonal Analytical Techniques

Atik A. E.

6th International Congress on Applied Biological Science, Adana, Turkey, 8 - 09 December 2021, pp.15-18

III. Analytical Characterization for the Comparability Evaluation of TUR03 Drug Substance and Innovator Lots by Mass Spectrometry

Atik A. E.

3rd International Congress on Analytical and Bioanalytical Chemistry, İstanbul, Turkey, 22 - 26 March 2021, pp.77-78

IV. Terapötik Monoklonal Antikörün Stres Koşulları Altında Bağlanma Özelliklerinin İncelenmesi

Atik A. E., Demirhan D., Can Ö., Alpan R. S.

3. Ulusal Proteomik Konferansı (TUPA), İstanbul, Turkey, 27 - 29 February 2020, pp.42

V. Monoklonal Antikör Yapısındaki Biyobenzer ve Referans İlaçların Stres Koşullarındaki Davranışlarının Kütle Spektrometresi ile İncelenmesi

Atik A. E.

3. Ulusal Proteomik Kongresi (TUPA), İstanbul, Turkey, 27 - 29 February 2020, pp.21

VI. Gas-Phase Fragmentation Mechanisms Studies of Doubly-Protonated Peptide Ions Containing Basic Amino Acid Residues by Mass Spectrometry

Atik A. E., Yalçın T.

22nd International Mass Spectrometry Conference (IMSC), Florence, Italy, 26 - 31 August 2018, pp.952-953

VII. Comparison of Methionine Oxidation Profiles of Biosimilar TUR01 Monoclonal Antibody to Its Reference Under Oxidative Stress

Atik A. E.

22nd International Mass Spectrometry Conference (IMSC), Florence, Italy, 26 - 31 August 2018, pp.511-512

VIII. Oksidatif Stres Altındaki Referans & Biyobenzer Monoklonal Antikörün Karşılaştırmalı Fizikokimyasal Analizleri

Atik A. E., Demirhan D., Can Ö., Serdar M. A.

2. Ulusal Proteomik Konferansı (TUPA), İstanbul, Turkey, 24 - 25 November 2017, pp.32

IX. Biyobenzer Bir Monoklonal Antikörün Fonksiyonel ve Sitotoksik Özelliklerinin Belirlenmesi ve

Referans Ürün ile Karşılaştırılması

Atik A. E., Demirhan D., Can Ö.

2. Ulusal Proteomik Konferansı (TUPA), İstanbul, Turkey, 24 - 25 November 2017, pp.40

- X. **Improvement of Glycosylation Profile to Increase Similarity of Adalimumab Biosimilar to the Innovator with High-Resolution Mass Spectrometry**
Atik A. E., Demirhan D., Can Ö.
65th ASMS Conference on Mass Spectrometry and Allied Topics, Indiana, United States Of America, 4 - 08 June 2017, pp.186
- XI. **Fragmentation Reactions of a7 Ions from Singly Protonated Model Heptapeptides Containing Glutamine Residue**
Atik A. E., Yalçın T.
65th ASMS Conference on Mass Spectrometry and Allied Topics, Indiana, United States Of America, 4 - 08 June 2017, pp.105
- XII. **Applying iTRAQ Proteomics and Systems Biology Approach to Understand the Glycosylated and Sialylated Pathways of CHO Mutants**
Can Ö., Demirhan D., Atik A. E.
X Annual Congress of the European Proteomics Association (EuPA), İstanbul, Turkey, 22 - 25 June 2016, pp.25
- XIII. **Investigation of Gas Phase Fragmentation Reaction Mechanism of Doubly-Protonated bn (n=7-9) Ions by Mass Spectrometry**
Atik A. E., Yalçın T.
64th ASMS Conference on Mass Spectrometry and Allied Topics, Texas, United States Of America, 5 - 09 June 2016, pp.182
- XIV. **Investigation the Extent of in vitro Methylation of Glutamic Acid or Aspartic Acid Containing Model Peptides by Electrospray Ionization-Mass Spectrometry (ESI-MS)**
Atik A. E., Yalçın T.
3rd Mediterranean Sea Region Countries Mass Spectrometry Workshop (MEDMS III), Athens, Greece, 28 June - 02 July 2015, pp.64
- XV. **Effect of Tyrosine Position on the Fragmentation Reactions of b3 Ions from Model Tripeptides**
Atik A. E., Yalçın T.
20th International Mass Spectrometry Conference (IMSC), Geneve, Switzerland, 24 - 29 August 2014, pp.297
- XVI. **Infrared Multiple Photon Dissociation (IRMPD) Spectroscopy of b7 Ions from Model Acetylated Peptides**
Atik A. E., Yalçın T.
3rd TAC Light Sources (SR & FEL) International Users' Meeting, Ankara, Turkey, 5 - 07 October 2013, pp.11-12
- XVII. **A New Rearrangement Reaction of Peptide b Ions Containing Acetylated Lysine Residue**
Atik A. E., Yalçın T.
61st ASMS Conference on Mass Spectrometry and Allied Topics, Minnesota, United States Of America, 9 - 13 June 2013, pp.90
- XVIII. **Effects of C-terminal Amide vs Carboxylic Acid Groups on the Dissociation of Deprotonated Model Peptides Containing Acidic Residue**
Atik A. E., Yalçın T.
61st ASMS Conference on Mass Spectrometry and Allied Topics, Minnesota, United States Of America, 9 - 13 June 2013, pp.90
- XIX. **The Role of Lysine ε-Amine Group on the Macrocyclization of b Ions**
Atik A. E., Yalçın T.
60th ASMS Conference on Mass Spectrometry and Allied Topics, Vancouver, Canada, 19 - 24 May 2012, pp.119
- XX. **Characteristic Fragmentation Patterns of b5+ and b4+ Ions from Side Chain Hydroxyl Group Containing Pentapeptides**
Atik A. E., Görgülü G., Yalçın T.
IX. Kimyasal Fizik Kongresi, İzmir, Turkey, 14 - 16 October 2010, pp.162
- XXI. **Protonlanmış Peptit Türevlerinin Reaksiyon Mekanizmalarının Kütle Spektrometresi ile İncelenmesi**

Görgülü G., Atik A. E., Yalçın T.

XXIV. Ulusal Kimya Kongresi, Zonguldak, Turkey, 29 June - 02 July 2010, pp.375

XXII. Effect of Acidic Amino Acid on b-Type Sequence Scrambling

Atik A. E., Yalçın T.

58th ASMS Conference on Mass Spectrometry and Allied Topics, Utah, United States Of America, 23 - 27 May 2010, pp.144

XXIII. Kütle Spektrometresinin Proteomik Çalışmalardaki Rolü

Atik A. E., Karakaya H. Ç., Koç A., Yalçın T.

XXII. Ulusal Kimya Kongresi, Gazimagusa, Cyprus (Kktc), 6 - 10 October 2008, pp.60

XXIV. The Role of V-ATPase Subunit E on Boron Tolerance in Barley

Atik A. E., Karakaya H. Ç., Koç A., Yalçın T.

European Molecular Biology Organization (EMBO) Young Scientist Forum, İstanbul, Turkey, 20 - 22 February 2008, pp.10

XXV. Strese Maruz Bırakılmış Bitkilerde Oluşan Yeni Proteinlerin 2D-Jel ve Kütle Spektrometresi ile Analizleri

Atik A. E., Karakaya H. Ç., Salih B., Yalçın T.

XX. Ulusal Kimya Kongresi, Kayseri, Turkey, 4 - 08 September 2006, pp.13

Supported Projects

Müftüoğlu M., Kocagöz Z. T., Can Ö., Alpan R. S., Atik A. E., TUBITAK Project, BİYOBENZER VEGF BLOKÖRÜNÜN TÜRKİYE'DE GELİŞTİRİLMESİ, KARAKTERİZASYONU VE PİLOT ÖLÇEK PROSESİNİN GELİŞTİRİLMESİ, 2018 - 2022

Can Ö., Demirhan D., Atik A. E., EU Supported Other Project, Biyoteknoloji Uygulamalarında Kullanılmak Üzere Özel Sensörlere Sahip Robot Teknolojilerinin Geliştirilmesi, 2018 - 2022

Atik A. E., Kocagöz Z. T., Özal İlideniz T. A., Süyen G., Arbak S., Ünübol N., Can Ö., Demirhan D., TUBITAK Project, Doğadan Esinlenerek Antimikrobiyal Peptit ve Benzerlerinin Geliştirilmesi, 2018 - 2021

Can Ö., ATİK A. E., TUBITAK Project, Igg Yapısındaki Terapötik Monoklonal Antikorun Antijen Bağlanma Özelliklerinin Belirlenmesi için Yüzey Plazmon Rezonans Sistemiyle Validasyonlarının Yapılarak Metot Geliştirilmesi, 2019 - 2020

Atik A. E., Yalçın T., TÜBİTAK - AB COST Project, Protonlanmış Peptitlerden Elde Edilen a-İyonlarının Gaz-Fazı Parçalanma Mekanizmalarının İncelenmesi, 2013 - 2015

Atik A. E., Yalçın T., TUBITAK Project, Peptit Türevlerinin Gaz Fazı Reaksiyon Mekanizmalarının Kütle Spektrometre ile İncelenmesi, 2010 - 2012

Scientific Refereeing

Turkish Journal of Analytical Chemistry (Online), National Scientific Refreed Journal, July 2024

Kafkas Tıp Bilimleri Dergisi, National Scientific Refreed Journal, April 2024

Journal of the Turkish Chemical Society, Section A: Chemistry, National Scientific Refreed Journal, June 2023

Acıbadem Üniversitesi Sağlık Bilimleri Dergisi, National Scientific Refreed Journal, June 2023

Tasks In Event Organizations

Atik A. E., 5th International Proteomics Congress (TUPA), Scientific Congress, Ankara, Turkey, Ekim 2023

Metrics

Publication: 37

Citation (WoS): 49

Citation (Scopus): 51

H-Index (WoS): 4

H-Index (Scopus): 4

Congress and Symposium Activities

- 5. Ulusal Proteomik Konferansı (TUPA), Invited Speaker, Ankara, Turkey, 2023
- 6. International Congress on Applied Biological Science, Invited Speaker, Adana, Turkey, 2021
- 3. International Congress on Analytical and Bioanalytical Chemistry, Invited Speaker, İstanbul, Turkey, 2021
- 3. National Proteomic Congress, Invited Speaker, İstanbul, Turkey, 2020
- 22. International Mass Spectrometry Conference (IMSC), Attendee, Florence, Italy, 2018
- 2. National Proteomic Congress, Attendee, İstanbul, Turkey, 2017
- 65. ASMS Conference on Mass Spectrometry and Allied Topics, Attendee, Indiana, United States Of America, 2017
- X. Annual Congress of the European Proteomics Association , Attendee, İstanbul, Turkey, 2016
- 64. ASMS Conference on Mass Spectrometry and Allied Topics, Attendee, Texas, United States Of America, 2016
- 3rd Mediterranean Sea Region Countries Mass Spectrometry Workshop, Attendee, Athens, Greece, 2015

Invited Talks

Advanced Analytical Methods in Biosimilar Product Analysis, Seminar, ISPE Turkey Affiliate Fall Seminar - The Present and Future of Biotechnology in Turkey, Turkey, October 2023

Awards

Atik A. E., EURIPIDES² Innovation Award , Aeneas Management Committee, November 2022

Non Academic Experience

Business Establishment Private, Turgut İlaçları A.Ş., Biyoteknoloji
Business Establishment Private, Turgut Pharmaceuticals, Biotechnology
İzmir Yüksek Teknoloji Enstitüsü