

Liana Arthur Hayriyan

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Research Center for the Institute of Pharmacy

Researcher

Education

Institution	Yerevan State University
Faculty	Chemistry and Pharmacology
Date	2013 - 2015
Degree name	Masters

Institution	Yerevan State University
Faculty	Chemistry
Date	2009 - 2013
Degree name	Bachelor

Scientific Rank/degree

Institution	The National Academy of Sciences of Armenia
Date	2021
Degree name	Candidate
Specialty	Chemical sciences
Scientific Supervisor	Anna Mkrtchyan
Research Topic	SYNTHESIS AND REASERCH OF NEW ENANTIOMERICALLY ENRICHED UNSATURATED α -AMINO ACIDS

Language skills

Հայերեն Русский English

Work experience

Institution	Insitut of Pharmacy
Period of time	2023 till now
Rank/degree	Researcher

Institution	ETH Zurich
Period of time	2019 - 2019
Rank/degree	Researcher

Institution A.N.Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences (INEOS RAS)
Period of time 2018 - 2018
Rank/degree Researcher

Institution SPC "Armbiotechnology" SNPO NAS RA
Period of time 2015 till now
Rank/degree Researcher

Publications

Article

Glaser Heterocoupling Reaction for the Synthesis of Enantiomerically Enriched Unnatural α -Amino Acids Incorporating Asymmetric Diyne Moieties: Mechanistic Insights and Optimization

Liana Hayriyan, Anna Tovmasyan, Anna Grigoryan, Karapet Ghazaryan, Barbara Biondi,

Olgert L. Dallakyan, Mikayel S. Chobanyan, Hayk Zaqaryan, Ashot Saghyan, Anna Mkrtchyan

ACS Omega 2025 A-G

Article

Synthesis and Biological Activity of Ultrashort Antimicrobial Peptides Bearing a Non-Coded Amino Acid

Cristina Peggion, Andrea Schivo, Martina Rotondo, Simona Oancea, Lucia-Florina Popovici,

Teodora Călin, Anna Mkrtchyan, Ashot Saghyan, Liana Hayriyan, Emma Khachatryan,

Fernando Formaggio, Barbara Biondi

Journal of Peptide Science 2025 8

Article

A3-Mannich coupling reaction via chiral propargylglycine Ni(ii) complex: an approach for synthesizing enantiomerically enriched unnatural α -amino acids

Liana Hayriyan, Anna Grigoryan, Hasmik Gevorgyan, Avetis Tsaturyan, Armen Sargsyan, Peter Langer,

Ashot Saghyan, Anna Mkrtchyan

RSC Advances 2025 35379-35387

Article

Catalytic ipso-Nitration of Organosilanes Enabled by Electrophilic N-Nitrosaccharin Reagent

Ivan Mosiagin, Anthony J. Fernandes, Alena Budinská, Liana Hayriyan, Kai E. O. Ylijoki, Dmitry Katayev

Angewandte Chemie - International Edition 2023 e202310851

Article

Asymmetric Synthesis of Derivatives of Alanine via Michael Addition Reaction and their Biological Study

Mkrtchyan Anna, Tovmasyan Anna, Paloyan Ani, Sargsyan Armen, Simonyan Hayarpi, Sahakyan Lusine,

Petrosyan Satenik, Hayriyan Liana, Sargsyan Tatevik

Synlett 2022 2013-2018

Article

Synthesis of enantiomerically enriched non-protein α -amino acids and their study as aldose

reductase inhibitors

Anna F. Mkrtchyan, Liana A. Hayriyan, Armen S. Sargsyan, Ani M. Paloyan, Anna S. Tovmasyan, Ani J. Karapetyan, Artur A. Hambardzumyan, Nelli A. Hovhannisyan, Henrik A. Panosyan, Hamlet N. Khachatryan, Ani S. Dadayan, Ashot S. Saghyan
Synthetic Communications 2021 1433-1450

*Article***Spectroscopic and SEM evidences for G4-DNA binding by a synthetic alkyne-containing amino acid with anticancer activity**

Marta A. Fik-Jaskółka, Anna F. Mkrtchyan, Ashot S. Saghyan, Rosanna Palumbo, Agnieszka Belter, Liana A. Hayriyan, Hayarpi Simonyan, Valentina Roviello, Giovanni N. Roviello
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY 2020 117884

*Article***Asymmetric synthesis, biological activity and molecular docking studies of some unsaturated α -amino acids, derivatives of glycine, allylglycine and propargylglycine**

A. F. Mkrtchyan, A. S. Saghyan, L. A. Hayriyan, A. S. Sargsyan, A. J. Karapetyan, A. S. Tovmasyan, A. H. Tsaturyan, E. V. Minasyan, A. S. Poghosyan, A. M. Paloyan, H. A. Panosyan, Lu. Yu. Sahakyan
Journal of Molecular Structure 2020 127850

*Article***Biological macromolecule binding and anticancer activity of synthetic alkyne-containing L-phenylalanine derivatives**

Marta A. Fik-Jaskółka, Anna F. Mkrtchyan, Ashot S. Saghyan, Rosanna Palumbo, Agnieszka Belter, Liana A. Hayriyan, Hayarpi Simonyan, Valentina Roviello, Giovanni N. Roviello
Amino Acids 2020 755-769

*Article***Using the Ni-[(Benzylpropyl)amino]benzophenone complex in the Glaser reaction for the synthesis of bis α -amino acids**

Anna F. Mkrtchyan, Liana A. Hayriyan, Ani J. Karapetyan, Anna S. Tovmasyan, Avetis H. Tsaturyan, Victor N. Khrustalev, Viktor I. Maleev, Ashot S. Saghyan
New Journal of Chemistry 2020 8

*Article***Synthesis of Enantiomerically Enriched Non-Proteinogenic α -Amino Acids Using the Suzuki Reaction**

Saghyan Ashot, Mkrtchyan Anna, Mardiyan Zorayr, Hayriyan Liana, Yuri N. Belokon, Peter Langer
ChemistrySelect 2019 4686-4688

*Article***Synthesis of enantiomerically enriched alkynylaryl-substituted α -amino acids through Sonogashira reactions**

Ashot S. Saghyan, Anna F. Mkrtchyan, Zorayr Z. Mardiyan, Liana A. Hayriyan, Ani J. Karapetyan, Yuri N. Belokon, Peter Ehlers, Peter Langer
ChemistrySelect 2019 13806-13809

*Article***Synthesis of a new enantiomerically enriched α -amino acid using the Glaser reaction**

Article

Nickel-coordinated chiral enols and Michael addition intermediate stabilized by the Ni-C bond

Liana A. Hayriyan, Anna F. Mkrtchyan, Margarita Moskalenko, Viktor Maleev, Zalina Gugkaeva,

Mikhail Il'in, Kirill Babiyevski, Pavel Dorovatorskiy, Viktor Khrustalev, Aleksandr Peregudov, Yu. Belokon

Mendeleev Communications 2018 464-466

Conference

Efficient method for the synthesis of novel enantiomerically enriched derivatives of propargylglycine

Anna F. Mkrtchyan, Ashot S Saghyan, Liana A Hayriyan, Ani J Karapetyan, Zorayr Z Mardiyan,

Hayarpi M Simonyan, Adonc Hovhannes

Conference

Efficient method for the synthesis of novel enantiomerically enriched derivatives of unsaturated amino acids

Ashot Saghyan, Anna Mkrtchyan, Liana Hayriyan, Zorayr Mardiyan, Hayarpi Simonyan

Conference

Modeling, synthesis and study of impact of peptides containing unsaturated double bond amino acids on collagenase activity

T. Sargsyan, T.Khachatryan, A.S. Sargsyan, L.Yu. Danghyan, S.M. Jamgaryan, E.A.Gyulumyan,

N. A. Hovhannisyanyan, L.A. Hayriyan, A.M. Hovhannisyanyan, A. H. Tsaturyan, A.S. Saghyan

Conference

Asymmetric synthesis of enantiomerically enriched analogs of NiII complexes of (S)-allylglycine

L.A.Hayriyan, A.F.Mkrtchyan, Z.Z.Mardiyan, A.J.Karapetyan, H.V. Adonc, H.M. Simonyan, S.Gh. Petrosyan,

L.Yu.Sahakyan, A.S. Saghyan

Conference

Synthesis of optically pure (S)-2-amino-5-(3-fluorophenyl)-2-(prop-2-yn-1-yl)pent-4-ynoic acid by using Sonogashira reaction

Z.Z. Mardiyan, L.A. Hayriyan, A.F.Mkrtchyan, A.X.Tsaturyan, A.J. Karapetyan, H.V. Adonc, H.M. Simonyan,

S.Gh.Petrosyan, L.Yu.Sahakyan, A.S. Saghyan

Conference

FIVE-YEAR ACHIEVEMENTS IN THE FIELD OF THE ASYMMETRIC SYNTHESIS OF UNSATURATED AMINO ACIDS

A. S. Saghyan, L.A. Hayriyan, Z.Z. Mardiyan, A.F. Mkrtchyan

Conference

THE SYNTHESIS OF POTENTIALLY ACTIVE NEW ENANTIOMERICALLY ENRICHED DERIVATIVES OF GLYCINE THROUGH CLICK REACTION

H.V. Adonts, A.S. Saghyan, L.A.Hayriyan, A.F. Mkrtchyan

Conference

Asymmetric synthesis of enantiomerically enriched new analogs of Ni II complexes of (S)-propargylglycine

L. Hayriyan, A. Saghyan, H. Simonyan, A. Karapetyan, Z. Mardiyan, A. Mkrtchyan

Conference

Asymmetric synthesis of new enantiomerically enriched α -amino acids

A.S. Saghyan, A.F. Mkrtchyan, Z.Z. Mardiyan, L.A. Hayriyan, H.V. Adonts

Conference

Synthesis and reactivity of chiral enols coordinated with Ni²⁺ ions and a case of a Michael adduct intermediate stabilized by the Ni-C bond

L. A. Hayriyan, A. F. Mkrtchyan, Y. N. Belokon, A. S. Saghyan

Conference

Asymmetric synthesis of enantiomerically enriched new analogs of Ni II complexes which contain unsaturated alkene groups

L. Hayriyan, A. Mkrtchyan, A. Saghyan

Conference

Asymmetric synthesis of new enantiomerically enriched unsaturated α -amino acids by promotion of cross-coupling reactions

Liana Hayriyan, Anna Mkrtchyan, Ashot Saghyan

Conference

Asymmetric synthesis and biological activity of some unsaturated α -amino acids

L. Hayriyan, A. Karapetyan, A. Tovmasyan, A. Mkrtchyan, A. Sargsyan, A. Saghyan
