



Curriculum Vitae

PERSONAL INFORMATION

Name and surname **Nikola Basarić**
 Academic title Senior scientist
 ORCID 0000-0001-9412-9734
 Reseacher ID 250000
 Year and institution of PhD obtained 2002., FACULTY OF CHEMICAL ENGINEERING AND TECHNOLOGY, UNIVERSITY OF ZAGREB
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 Citizenship Croatian
 Date and place of birth January 26, 1975. Zagreb

WORK EXPERIENCE

(CHRONOLOGICALLY)

Date (from – until) January 1, 2013.-to present Senior scientist
 Institution Ruđer Bošković Institute
 Position January 1, 2015 - Head of the Laboratory for synthetic organic chemistry, Ruđer Bošković Institute
 June 13, 2008. – December 31, 2012 Senior research associate
 December 1, 2004.-June 13, 2008. Research associate
 Work field -Synthesis and photochemistry of heterocyclic compounds (pyrrole and phthalimide derivatives),
 -Mechanistic organic photochemistry (study of intramolecular hydrogen transfer),
 -Synthesis and spectroscopic characterization of different molecules with biological activity or for targeting biologically important molecules

WORK EXPERIENCE

(CHRONOLOGICALLY)

Date (from – until) June 13, 1998.-November 30, 2004.
 Institution Faculty of Chemical Engineering and Technology (Department of Organic Chemistry)
 Position June 20, 2002.-November 30, 2004. Senior asistant
 June 13, 1998.-November 30, 2004. Young researcher
 Work field -Synthesis and photochemistry of heterocyclic compounds (pyrrole and furan derivatives)

EDUCATION

(CHRONOLOGICALLY)

Date May 13, 2002.
 Place Zagreb
 Institution Faculty of Chemical Engineering and Technology, University of Zagreb
 Title of qualification awarded PhD in Chemistry

EDUCATION

(CHRONOLOGICALLY)

Date March 27, 1998.
 Place Zagreb
 Institution Faculty of Chemical Engineering and Technology, University of Zagreb
 Title of qualification awarded Dipl. ing. of chemical technology

TRAINING

(CHRONOLOGICALLY)

Year February 1, 2005.-January 31, 2006.
 Place Victoria, British Columbia, Canada
 Institution Department of Chemistry, University of Victoria (Professor. P. Wan, PhD)
 Subject and skills covered Mechanistic organic photochemistry

TRAINING

(CHRONOLOGICALLY)

Year July 15, 2003.-November 30, 2004.
 Place Leuven, Belgium
 Institution Department of Chemistry, Division for Photochemistry and Spectroscopy, University of Leuven, (Professor N. Boens, PhD).
 Subject and skills covered Synthesis and photophysical characterization of fluorescent sensors

LANGUAGES

MOTHER TONGUE **Croatian**
ENGLISH LANGUAGE **C2**
 Speaking **C2**
 Writing **C1**
 Reading **C2**

OTHER FOREIGN LANGUAGES

Language **German**
 Speaking B1
 Writing A2
 Reading B1

OTHER FOREIGN LANGUAGES

Language **French**
 Speaking B2
 Writing B1
 Reading B2

OTHER FOREIGN LANGUAGES

Language **Spanish**
 Speaking B1
 Writing A2
 Reading B1

RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

Project leader:

2024.-2027. Project of the Croatian Science Foundation (HrZZ): "Functional Photoreactive Chromophores for Applications in Organic Synthesis and Biology (FunPhotoAppSynBio)".

- 2020.-2024. Project of the Croatian Science Foundation (HrZZ): "Photochemistry: Reaction Mechanisms and Applications in Organic Synthesis and Biology (PhotoApp)".
- 2015.-2019. Project of the Croatian Science Foundation (HrZZ): "Supramolecular control of photoeliminations (SupraPhotoE)".
- 2010.-2013. Project of the Croatian Foundation of Science (HrZZ): "Photochemistry of polycyclic molecules: From mechanistic studies to new drugs and medicinal applications".
2009. UKF project: "Synthesis and photochemistry of polycyclic derivatives of phenols: potential precursors for long-lived quinone methides".
- 2009.-2010. "Fluorescent Anion Sensors: Synthesis and Spectroscopic Characterization" Bilateral project with the Peoples Republic of China and Ministry of Science Education and Sports of the Republic of Croatia.
- 2008.-2009. HAZU project: „Quinone methides: Potential Anticancer Agents“
- 2007.-2008. DAAD Bilateral project between Croatia and Germany: "Photochemical transformations of adamantane derivatives activated by phthalimides"

Co-worker on projects

Croatian projects:

- 2024.-2026. Technology transfer support, Project no.: NPOO.C3.2.R3-I1.02.0016, "BODIPY fluorescent dyes for advanced diagnostics and inovative phototherapy" (MikroFotoBodi, project leader M. Kralj, PhD)
- 2007.-2013. Project no.: 098-0982933-2911, "Cage Compounds: Building Blocks for Molecular Architecture" (project leader: K. Majerski, PhD), Ministry of Science Education and Sports, Republic of Croatia.
- 2006.-2007. "Synthesis of fluorescently labeled macrolide probes" (project leader: K. Majerski, PhD), GlaxoSmithKline research center Zagreb
- 2004.-2006. Projekt no.: 0098052, "Synthesis, molecular structure and function of polycyclic molecules" (project leader: K. Majerski, PhD), Ministry of Science Education and Sports, Republic of Croatia.
- 2002.-2004. Project no.: 0125004, " Synthesis, Photochemistry and Structure Studies of Heterocyclic Compounds" (project leader: Professor M. Šindler, PhD), Ministry of Science Education and Sports, Republic of Croatia.
- 2000.-2002. Project no.: 125004, "Chemistry and Photochemistry of Heterocycles; Drug Synthons" (project leader: Professor M. Šindler, PhD), Ministry of Science Technology, Republic of Croatia.

International projects:

- 2013.-2016. Collaborator on the FP7 Regpot project InnoMol (leader: Dr. O. Vugrek)
- 2006.-2008. Bilateral project between the Republic of Croatia and the Republic of India, "Pores and Channels by Assembly of Cyclic Peptides: Design, Molecular Modeling and Synthesis" (project leader: K. Majerski, PhD).

TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE , POSTGRADUATE STUDY PROGRAMMES)

Post-graduate:

I-213 Principles and applications of fluorescence spectroscopy, Faculty of Chemical Engineering and Technology, University of Zagreb

152808 Reactive Intermediates in Organic Chemistry, Faculty of Science, University of Zagreb

DSMK 902 Applications of fluorescence spectroscopy in biomedicine, Division of Biotechnology, University of Rijeka

Graduate:

43994 Photochemistry, Faculty of Science, University of Zagreb

**MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS
AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS
(CHRONOLOGICALLY)**

PhD Thesis

Antonija Erben, mentor for PhD thesis: "Synthesis and photochemistry of oligopeptides and their potential application in diagnostics and therapy", Faculty of Biotechnology and Drug Development, University of Rijeka, May 17, 2024.

Katarina Zlatić, mentor for PhD thesis: "BODIPY compounds: fluorescent markers for biomolecules and phototherapeutics," Division of Biotechnology, University of Rijeka, October 1, 2021.

Leo Mandić, mentor for PhD thesis: "Photochemical decarboxylation of phthalimide derivatives", Faculty of Science, University of Zagreb, December 21, 2018.

Matija Sambol, mentor for PhD thesis: "Preparation of quinone methides and investigation of their biological effects", Faculty of Science, University of Zagreb, December 19, 2018.

Đani Škalamera, mentor for PhD thesis: "Synthesis, photochemical reaction mechanisms of formation and biological activity of benzene, naphthalene and anthracene quinone methides", Faculty of Science, University of Zagreb, April 16, 2015.

Vesna Blažek, mentor for PhD thesis: "Synthesis and Spectroscopic Characterization of Adamantyl-urea Receptors, Potential Anion Sensors", Faculty of Chemical Engineering and Technology, University of Zagreb, April 15, 2013.

Margareta Horvat, mentor for PhD thesis: "Synthesis and Photochemistry of Novel Adamantyl Phthalimide Derivatives", Faculty of Science, University of Zagreb, September 15, 2011.

Diploma Thesis

Lorena Vidoša, mentor for Diploma thesis: „Synthesis of BODIPY compounds that target intracellular organelles“ Faculty of Biotechnology and Drug Development, University of Rijeka, September 12, 2023.

Matija Popović, mentor for Diploma thesis: " Synthesis and photochemistry of halogenated BODIPY photocages", Faculty of Science, University of Zagreb, September 17, 2021.

Kristin Becker, mentor for Diploma thesis: "Synthesis and photochemistry of adamantyl phenyl diazomethane", Faculty of Science, University of Zagreb, January 21, 2019.

Zlatan Spahić, mentor for Diploma thesis: " Synthesis and photochemistry of alanine and 3-(N-phtalidimo)adamantane carboxylic acid dipeptide", Faculty of Science, University of Zagreb, September 10, 2015.

Nikolina Vidović, mentor for Diploma thesis: "Synthesis of phthalimidoadamantane tetra- and pentapeptides", Faculty of Science, University of Zagreb, September 12, 2014.

Nikola Cindro, mentor for Diploma thesis: "Synthesis, thermal and photochemical reactivity of hydroxyalkylphenols", Faculty of Science, University of Zagreb, May 9, 2014.

Matija Sambol, mentor for Diploma thesis: " Synthesis of Benzene, Naphthalene and Anthracene Precursors of Bis(qinomethane)", Faculty of Science, University of Zagreb, July 4, 2013.

Lucija Ptiček, mentor for Diploma thesis: "Synthesis of hydroxy derivatives of naphthalenes and anthracenes, precursors in the photochemical synthesis of quinone methides" Faculty of Science, University of Zagreb, July 12, 2011.

Ivana Žabčić, mentor for Diploma thesis: "Synthesis of adamantane derivatives of phenols and preliminary investigation of their photochemical reactivity", Faculty of Food Technology and Biotechnology, University of Zagreb, November 28, 2008.

Margareta Horvat, mentor for Diploma thesis: "Synthesis and Photochemistry of Furan and Phthalimide Derivatives for the Preparation of Polycyclic Structures", Faculty of Chemical Engineering and Technology, University of Zagreb, February 23, 2007.

VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

- September 15-December 15, 2015. Visiting scientist, Department of Chemistry, University of Victoria, British Columbia, Canada (prof. dr. P. Wan).
- September 15-December 15, 2012. Visiting scientist, Department of Chemistry, University of Victoria, British Columbia, Canada (prof. dr. P. Wan).
- September 17-December 24, 2011. Visiting scientist, Department of Chemistry, University of Victoria, British Columbia, Canada (prof. dr. P. Wan).
- September 1-December 31, 2010. Visiting scientist, Department of Chemistry, University of Victoria, British Columbia, Canada (prof. dr. P. Wan).
- June 1-September 30, 2009. Visiting scientist, Department of Chemistry, University of Victoria, British Columbia, Canada (prof. dr. P. Wan).
- February 1, 2005.-January 31, 2006. Postdoctoral specialization at the Department of Chemistry, University of Victoria, British Columbia, Canada.
- July 15, 2003.-November 30, 2004. Postdoctoral specialization at the Department of Chemistry, Division for Photochemistry and Spectroscopy, University of Leuven, Belgium
- October 1, 1999.-February 1, 2000. Institut für organische Chemie der Universität zu Köln – working in the laboratory of Professor A. G. Griesbeck, PhD and attending photochemistry lectures (DAAD scholarship).

AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

- 2012. Award of the Director General of the Rudjer Boskovic Institute for the year 2012.
- 2010. Award of the Director General of the Rudjer Boskovic Institute for the year 2010.
- 2009. Award "Lavoslav Ružička" given by the Croatian Chemical Society for the achievement in chemistry.
- 2005. Annual award for young scientists of The Society of University Teachers for the best publication in the year (*Chem. Eur. J.*, **2005**, 11, 543-551).
- 2005. Award "Vladimir Prelog" given by the Croatian Chemical Society for the achievement in organic chemistry.
- 2004. The Croatian State Annual Award for young scientists in the field of natural sciences for 2004.

ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS)

- Local organizing committee of the ICESAA3, International Conference on Excited State Aromaticity and Antiaromaticity, Dubrovnik, Croatia, July 2024.
- Scientific organizing committee of the XXIV Croatian Meeting of Chemists and Chemical Engineers (Zagreb, Croatia; April 2015.)
- Local Organizing Committee of the XVII Joint Meeting on Medicinal Chemistry (Dubrovnik, Croatia; June 2017.)

MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

Member of the Croatian Academy of Sciences
 Croatian Chemical Society, Head of the Organic Chemistry Section (2009.-2015. and 2022.-)
 European Photochemical Association
 Member of the IUPAC Subcommittee on Photochemistry

COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

The Head of the Intellectual Property Committee at the Ruđer Bošković Institute (2018.-).

PAPERS

(CHRONOLOGICALLY; RESEARCH BOOKS, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS; ; PLEASE PROVIDE THE H INDEX AND THE TOTAL NUMBER OF CITATIONS)

Published **114 scientific papers** referred in the Current contents database (114 WoS, 52 Q1, 25 first author, 68 corresponding author) in the field of organic chemistry, photochemistry and photophysics, 3 review papers, 2 USA granted patents, according to WOS received more than 2700 citations; h-index 26.

OTHER RESEARCH ACTIVITIES

(CHRONOLOGICALLY; CHIEF EDITOR OR EDITOR OF RESEARCH BOOK, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS AND OTHER)

Editorial board of the journal Croatica Chemica Acta

COMPUTER SKILLS

Windows, MS Office, Origin, programs used in chemistry

OTHER IMPORTANT SKILLS AND COMPETENCES

ADDITIONAL INFORMATION AND NOTES

Civil service: September 2002. - May 2003.