# CURRICULUM VITAE Dr. Yana I. Sakhno

### **PERSONAL:**

**Born** 1976/6/19; Kharkiv, Ukraine

**Citizenship** Ukraine

**Home address:** Bolgarskaya st. 34,

Kharkiv, Ukraine

UA-61064

Official address: State Scientific Institution "Institute for Single Crystals" of National

Academy of Sciences of Ukraine 60 Nauky, Kharkiv, Ukraine

UA-61072

**Phones:** +38-057-341-02-61(Office); +38-067-902-87-19 (Mobile)

Fax: +38-057-340-93-43

E-mail: <u>yana.sakhno@googlemail.com</u>

**Secondary E-mail:** sakhno@isc.kh.ua

### **EDUCATION AND ACADEMIC STATUSES:**

Specialist (M.Sc.) with Chemistry, June 1999, Kharkiv State University

**honor** (diploma XA 11642537)

Thesis under Dr. Nadezhda N. Kolos: "Synthesis 2,4-diaryl-2,3-dihydro-1,5-

benzodiazepines and their N-aroyl derivatives".

**PhD** Organic Chemistry, June 2009, Karazin Kharkiv National University

Thesis under Dr. Valentyn A. Chebanov supervision: "Heterocyclization

reactions of pyruvic acid and its derivatives with aminoazoles".

#### **PROFESSIONAL CAREER:**

August 1993 – July 1999 Student, Kharkiv State University (Since 1999 – Karazin Kharkiv

National University)

September 1994 – February

996

**Laboratory assistant,** Kharkiv school № 162

February 1996 – August 2000 Chemistry teacher, Kharkiv school № 162

August 2000 – March 2009 Engineer, Department of Photoactive Heterocyclic Compounds, STC

"Institute for Single Crystals", Kharkiv

March 2008 – April 2008 Guest Researcher, Organic Chemistry Department, University of

Konstanz, Germany (Prof. U. Groth)

March 2009 – June 2012 **Junior Researcher**, Laboratory for Physicochemical Processes at

Department of Heterocyclic Compound Chemistry, SSI "Institute for

Single Crystals" NASU, Kharkiv

June 2012 – August 2013 **Postdoctoral study** University of South Florida, Tampa (USA).

(supervisor - Dr. R. Manetsch)

September 2013 – December

2016

Researcher, Laboratory for Physicochemical Processes at Department

of Heterocyclic compounds, SSI "Institute for Single Crystals" NASU,

Kharkiv

December 2016 – present time Senior Research Scientist, Deputy Head of the Department of Organic

and Bioorganic Chemistry, Institute of Functional Materials Chemistry

SSI "Institute for Single Crystals" NAS of Ukraine, Kharkiv

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#### **RESEARCH INTERESTS:**

The main research interests are to study the patterns and control of regioselectivity and chemoselectivity of multicomponent and linear heterocyclization reactions involving keto acids of different structures, 1,3-binucleophiles and carbonyl compounds to obtain new azolopyridine and pyrimidine carboxylic acids, their derivatives and pyrrolone compounds for further study of their antibacterial, antiviral and antidiabetic activities. Particular attention will be paid to the development of a strategy for tandem combination of organic reactions to create new types of biologically active molecules containing a peptidomimetic chain and an additional pharmacophoric heterocyclic fragment. Green chemistry approaches are widely used, in particular microwave and ultrasonic irradiation, to shorten reaction times, increase selectivity of treatments and improve product yields.

### **TEACHING EXPERIENCE:**

- Chemistry teacher, Kharkiv school № 162
- Co-supervision of bachelor's and master's theses
- Practical laboratory course at Karazin Kharkiv National University
- supervision of schoolchildren's projects at the competitions of the Junior Academy of Science of Ukraine

#### MEMBERSHIP IN SCIENTIFIC SOCIETIES

• American Chemical Society (2013)

## **AWARDS, GRANTS AND SCHOLARSHIPS:**

- 2000 Appreciation for high level of teaching.
- 2007 Award from SSI "Institute for Single Crystals" NASU, Kharkiv
- 2007 2008 DAAD scholarship for scientists, Organic Chemistry Department, University of Konstanz, Germany
- 2010 Award from National Academy of Sciences of Ukraine
- 2011 President of Ukraine Young Scientists Award
- 2012-2013 Scholarship for postdoctoral fellow at University of South Florida, Tampa (USA)
- 2019 Award of Kharkiv State Administration for significant progress in science

#### **WORKING EXPERIENCE OUTSIDE UKRAINE:**

March 2008 – April 2008: Guest Researcher, DAAD scholarship, Organic Chemistry Department, University of Konstanz, Germany (Prof. U. Groth) study of multicomponent reactions involving phenylpyruvic acids

June 2012 – Julay 2013: Postdoctoral Fellow in the laboratory of Professor Roman Manetsch at the University of South Florida (Tampa, USA) funded by the National Institutes of Health grant R01 "Drugs targeting Erythrocytic and Exoerythrocytic stages of malaria". During her stay in Professor Roman Manetsch's laboratory, she synthesized and characterized compounds with antimalarial activity based on a 4(1H)-quinolone scaffold

## **SCIENTIFIC PROJECTS:**

The total number of projects, competitive programs, departmental research topics, and national and international grants is 10, including:

- Project executor "Polypharmacophoric organic compounds based on peptidomimetics and fused benzodiazepines", competition Support of research of leading and young scientists, 2020.02/0023, SSI "Institute for Single Crystals" of the National Academy of Sciences of Ukraine, 10.2020 - 11.2023, 10 participants.
- Project executor "Creation of modern bases for obtaining and analyzing substances and components of materials for pharmaceutical use", competitive project of NAS of Ukraine, 0223U000304, SSI "Institute for Single Crystals" NAS of Ukraine, 01.2019 12.2021, 88 participants
- Principal project executor "Directed synthesis, chemical transformations and properties of new nitrogen-containing heterocyclic compounds" (code "Prostir"), 2022-2-24, State Scientific Institution

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"SSI "Institute for Single Crystals" of the National Academy of Sciences of Ukraine". State registration number 0122U001857

## **PUBLICATIONS:**

The total number of publications is <u>89</u>, including 6 Ukrainian patents and 24 scientific papers published in domestic and foreign peer-reviewed journals, including <u>20</u> publications included in the Scopus database, 59 abstracts of Ukrainian and international conferences. H-index according to Scopus is 10, the total number of citations is 423, of which 398 have been published in the last 15 years.

https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=8948423700&zone=

https://scholar.google.com/citations?user=G3hpeXkAAAAJ&hl=ua

https://orcid.org/my-orcid?orcid=0000-0003-0561-635X

https://www.webofscience.com/wos/author/record/HJZ-4228-2023