

# Silvana Vasilca

## Curriculum Vitae

### EDUCATIE

2016-prezent

#### Doctorat in Chimie

Universitatea din Bucuresti, Facultatea de Chimie, Romania

2014-2016

#### Masterat in Chimia materialelor avansate

Universitatea din Bucuresti, Facultatea de Chimie, Romania

2011-2014

#### Licenta in Chimie

Universitatea din Bucuresti, Facultatea de Chimie, Romania

2007-2011

#### Liceu - Matematica-informatica, intensiv informatica

Colegiul National "David Prodan" Cugir, Romania

### EXPERIENTA IN CERCETARE

2020 - prezent

**Chimist**, Extreme Light Infrastructure - Nuclear Physics (ELI-NP)

2015 - prezent

**Chimist**, Institutul National de Cercetare-Dezvoltare pentru Fizica si Inginerie Nucleara "Horia Hulubei" (IFIN-HH)

2018

**Proiect de mobilitate**, Centrul pentru studii si tehnologii nucleare (C<sup>2</sup>TN), Bobadela-Lisabona, Portugalia

2015

**Internship**, Comisariatul pentru Energie Atomica si Energii Alternative (CEA), Arc-Nucléart, Grenoble, Franta

2014

**Internship**, Institutul National de Cercetare-Dezvoltare pentru Fizica si Inginerie Nucleara "Horia Hulubei" (IFIN-HH)

## CURSURI SI CERTIFICARI

2016	Introducere in fizica nucleara si a particulelor (Centrul de Pregatire si Specializare in Domeniul Nuclear)
2011-2014	Modul psiho-pedagogic (Universitatea din Bucuresti)

## COMPETENTE DIGITALE

Programare Pascal  
Programare C  
Programare baze de date Oracle  
Software-uri stiintifice

## LIMBI STRAINE

Engleza - C2  
Franceza - B2  
Japoneza - A2

## PUBLICATII

**S. Vasilca**, M. Virgolici, M. Cutrubinis, V. Moise, P. Mereuta, R. Sirbu, A. Medvedovici, Wood consolidation through an epoxy-acrylic gamma-crosslinked three-dimensional system, *Polymers for Advanced Technologies*, 35, 4, 6381 (2024);

I. Petroviciu, E. Cernea, I. Turcu, **S. Vasilca**, F. Albu, Natural Dyes in Embroideries of Byzantine Tradition The Collection of Embroidered Aères and Epitaphioi in The National Museum of Art of Romania, *Heritage*, 7, 6, 3248-3275 (2024);

**S. Vasilca**, I. Petroviciu, D. Negut, M. Virgolici, F. Albu, A. Medvedovici, Supramolecular solvent based method for natural dyes extraction from fibers and holistic chemometric approaches used for assessing induced gamma irradiation's effects: A comprehensive study by LC-DAD-MS analysis, *Microchemical Journal*, 189 (2023);

I. Petroviciu, I. Teodorescu, **S. Vasilca**, F. Albu, A. Medvedovici, Liquid chromatography as analytical tool for the study of natural and early synthetic dyes in traditional Saxon textiles, *Heritage Science*, 11, 164 (2023);

I. Petroviciu, I. Teodorescu, **S. Vasilca**, F. Albu, Transition from Natural to Early Synthetic Dyes in the Romanian Traditional Shirts Decoration, *Heritage*, 6(1), 505-523 (2023);

N. Florea, C. Nita, C. Sotty, R. Marginean, M. Bacalum, M. Enculescu, N. Marginean, E. Matei, P. Mereuta, C. Mihai, **S. Vasilca**, Preparation of <sup>82</sup>Se thin films with trigonal hexagonal crystal structure for in-beam nuclear structure experiments, *Vacuum*, 215, 112250 (2023);

A. Acasandrei, **S. Vasilca**, E. Ionuz, A. Serban, F. Albota, M. Alexandru, L. Trandafir, F. Zorila, M. Constantin, M. Cutrubinis, S. Stefanescu, L. Sima, I.

- Moise, The potential of the radiation technologies to improve the quality of dietary supplements, *Rom Biotechnol Lett.* 28, 2, 3959-3967 (2023);
- A. Mateescu, N. Mincu, **S. Vasilca**, R. Apetrei, D. Stan, B. Zorila, D. Stan, The influence of sugar–protein complexes on the thermostability of C-reactive protein (CRP), *Scientific Reports*, 11, 13017 (2021);
- M. Stanca, C. Gaidau, C. Alexe, I. Stanculescu, **S. Vasilca**, A. Matei, D. Simion, R. Constantinescu, Multifunctional Leather Surface Design by Using Carbon Nanotube-Based Composites, *Materials*, 14, 3003 (2021);
- F. Teleanu, C. Tuta, A. Cucoanes, **S. Vasilca**, P. R. Vasos, Magnetization Lifetimes Prediction and Measurements Using Long-Lived Spin States in Endogenous Molecules, *Molecules*, 25, 23, 5495 (2020);
- V. Moise, **S. Vasilca**, A. Baltac, C. Pintilie, M. Virgolici, M. Cutrubinis, C. Kamerzan, D. Dragan, M. Ene, F. Albota, S. Maier, Physicochemical study for characterization of lyophilized collagens irradiated with gamma radiation and for optimization of medical device manufacturing process, *Radiation Physics and Chemistry*, 170, 108658 (2020);
- S. Serafima, O. Dului, M. Manea, **S. Vasilca**, C. Radulescu, B. Constantinescu, D. Stan, O. Culicov, I. Zincovscaia, Complex investigation of the five 19th century Russian-Lipovan icons, *Microchemical Journal*, 150, 104126 (2019);
- V. Moise, M. Manea, **S. Vasilca**, C. Pintilie, M. Virgolici, M. Cutrubinis, I. Stanculescu, V. Meltzer, The crosslinking behaviour of cellulose in gamma irradiated paper, *Polymer Degradation and Stability*, 160, 53-59 (2019);
- V. Moise, I. Stanculescu, **S. Vasilca**, M. Cutrubinis, E. Pincu, P. Oancea, A. Raducan, V. Meltzer, Consolidation of very degraded cultural heritage wood artefacts using radiation curing of polyester resins, *Radiation Physics and Chemistry*, 156, 314-319 (2019);
- S. Vasilca**, M. Virgolici, M. Cutrubinis, V. Moise, I. Stanculescu, Q. K. Tran, A. Medvedovici, TD-GC-FID based approach for monitoring indoor borne styrene and optimization of irradiation conditions for radiopolymerization in consolidated artifacts, *Journal of Liquid Chromatography & Related Technologies*, 42, 217-224 (2019).

## CONFERINTE (SELECTIE)

Iunie 2023

**S. Vasilca**, E. Ionuz, A. Serban et al. Assessment of HPLC, UV-VIS and ICP-MS potential for quality control analytical techniques in new BIO-AORP dyes removal technologies, 32nd Miller Conference on Radiation Chemistry, Furiani, Franta (*poster*)

Octombrie 2022

**S. Vasilca**, I. Petroviciu, M. Cutrubinis, M. Virgolici, V. Moise, A. Medvedovici; Gamma radiation effect on early synthetic dyes; The 41th Conference on Dyes in History and Archaeology (*online*)

Septembrie 2022

**S. Vasilca**, M. Virgolici, M. Cutrubinis, V. Moise, A. Medvedovici; Polymer-based composite materials obtained by radiopolymerization with applications in Cultural Heritage; The 28th International Nuclear Physics Conference, Cape Town, South Africa (*poster*)

- August 2022 **S. Vasilca**, D. Negut, I. Petroviciu, M. Cutrubinis, M. Virgolici, V. Moise, A. Medvedovici; A multi-analytical approach to assess the effect of gamma radiation on anthraquinone natural dyes; Second International Conference on Applications of Radiation Science and Technology, Vienna, Austria (*Castigatoare a Young Professional Award*)
- Noiembrie 2021 **S. Vasilca**, I. Petroviciu, D. Negut, M. Virgolici, F. Albu, A. Medvedovici; Development of a new mild extraction method for the analysis of natural dyes in Cultural Heritage textiles by LC-DAD-MS; The 40th Conference on Dyes in History and Archaeology (*online*)
- Octombrie 2020 **S. Vasilca**, I. Petroviciu, M. Cutrubinis, M. Virgolici, V. Moise, A. Medvedovici; Gamma radiation effect on natural dyes from historical textiles; The 39th Conference on Dyes in History and Archaeology (*online*)
- Mai 2019 **S. Vasilca**, D. Negut, V. Moise, M. Virgolici; Gamma radiation effect on painting restoration materials; Technart- analytical techniques in cultural heritage, Bruges, Belgium (*poster*)
- Octombrie 2018 **S. Vasilca**, V. Moise, M. Virgolici, M. Cutrubinis; Gamma irradiation effect on collagen medical devices; IAEA's Workshop on radiation processing for advanced polymeric materials, Warsaw, Poland (*prezentare orală*)
- Iunie 2018 **S. Vasilca**; Radiation crosslinked macromolecular formulations; Heptech, Szeged, Hungary (*prezentare orală*)
- Septembrie 2017 **S. Vasilca**, M. Virgolici, M. Cutrubinis, V. Moise, I. Stănculescu, Q. K. Tran, A. Medvedovici; Nuclear Techniques for the conservation of wooden heritage objects - new resins formulations; IFA-CEA Symposium, Bucharest, Romania (*prezentare orală*)
- Mai 2017 **S. Vasilca**, M. Virgolici, M. Cutrubinis, V. Moise, I. Stănculescu, Q. K. Tran, A. Medvedovici; Method development for the detection of indoor sources of styrene in museums; Technart- Non-destructive and microanalytical techniques in art and cultural heritage, Bilbao, Spain (*poster*)
- Mai 2016 **S. Vasilca**, T. Guiblain, I. Stănculescu, L. Cortella, Q. K. Tran; FTIR Spectroscopy study on wooden materials consolidated with acrylic based resins; The 12th Infrared and Raman Users Group Conference, Ormilya, Greece (*poster*)
- Iulie 2015 **S. Vasilca**, I. Rodica Stănculescu, C. Pintilie, M. Virgolici, B. Lungu, V. Moise, C. Ghinea, L. Cortella, Q. K. Tran; Consolidation of very degraded wood artefacts by resin impregnation and gamma irradiation; The 8th International Conference on Advanced Materials, Bucharest, Romania (*poster*)

#### **PATENTE**

A100761 / 2022 - Silvana Vasilca, Marian Virgolici, Mihalis Cutrubinis, Valentin Moise, "Polimer hibrid epoxi-poliacrilic obtinut prin reticulare indusa gamma"

25/07/2024