

Personal information

First name(s) / Surname(s) **MONICA GORGAN (born BUCȘA)**
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E-mail(s) monica.gorgan@yahoo.com, monica.bucsa@ubbcluj.ro
Nationality Romanian
Date of birth 1977/11/28
Gender Female
ResearchID F-2626-2011

Occupational field **Scientific Researcher**

Work experience

Dates	2019 → present
Occupation or position held	Researcher
Main activities and responsibilities	Organic synthesis Synthesis and purification of the pheromones Analysis methods of synthesized compounds (GC-MS, NMR, IR, Raman)
Name and address of employer	Babes-Bolyai University, Raluca Ripan Institute for Research in Chemistry 30 Fantanele, 400294, Cluj-Napoca, Romania
Type of business or sector	Research / Education
Dates	2006 → 2019
Occupation or position held	Researcher assistant
Main activities and responsibilities	Synthesis and purification of the pheromones Analysis methods of synthesized compounds (GC-MS, NMR, IR, Raman)
Name and address of employer	Babes-Bolyai University, Raluca Ripan Institute for Research in Chemistry 30 Fantanele, 400294, Cluj-Napoca (Romania)
Type of business or sector	Research / Education

Education and training

Dates	2003 - 2011
Title of qualification awarded	PhD
Principal subjects / occupational skills covered	Thesis title: "CONTRIBUTIONS TO THE SYNTHESIS AND COMPLEXATION OF SOME MACROCYCLIC AND HETEROCYCLIC COMPOUNDS CONTAINING NITROGEN",

Name and type of organisation providing education and training
Advisor: Prof. dr. Vlassa Mircea
Babes-Bolyai University
1 M. Kogalniceanu, 400084, Cluj-Napoca (Romania)

Dates **2002 - 2003**

Title of qualification awarded
Master of Science
Principal subjects / occupational skills covered
Master in "Advances in Organic Chemistry"

Name and type of organisation providing education and training
Babes-Bolyai University (Faculty of Chemistry and Chemical Engineering)
11 Arany Janos, 400028, Cluj-Napoca (Romania)

Dates **2002 - 2003**

Title of qualification awarded
Master of Science
Principal subjects / occupational skills covered
Master in "Biophysics and Medical Physics"

Name and type of organisation providing education and training
Babes-Bolyai University (Faculty of Physics)
1 M. Kogalniceanu, 400084, Cluj-Napoca (Romania)

Dates **1998 - 2002**

Title of qualification awarded
Degree in chemistry and physics
Name and type of organisation providing education and training
Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering
11 Arany Janos, 400028, Cluj-Napoca (Romania)

Additional courses and training

Dates **04/2008 - 06/2008**

Title of qualification awarded
PhD - doctoral scholarship
Principal subjects / occupational skills covered
Aza Crown complexation synthesis with Tin.

Name and type of organisation providing education and training
University of Ioannina
45110 Ioannina (Greece)

Dates **04/2007 - 08/2007**

Title of qualification awarded
PhD - doctoral scholarship
Principal subjects / occupational skills covered
Aza Crown complexation synthesis with Cadmium and Zinc metals.

Name and type of organisation providing education and training
University of Ioannina
45110 Ioannina (Greece)

Dates **08/2003 - 09/2003**

Title of qualification awarded
PhD - doctoral scholarship
Principal subjects / occupational skills covered
Intensive course of spectroscopy, ERASMUS Programme.

Name and type of organisation providing education and training
Department of mineralogy, Universität Wien, Austria

Personal skills and competences

Mother tongue(s) Romanian

Other language(s)

Self-assessment

Understanding

Speaking

Writing

European level (*)		Listening		Reading		Spoken interaction		Spoken production		
English	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
French	B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	B2	Independent user
German	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences	Team worker abilities, professional maturity, quick learner, sense of responsibility, able to plan and organize and to meet deadlines on time.
Technical skills and competences	Chemical synthesis, chemical analysis (IR, NMR, GC-MS, MS, Raman, X-Ray Diffraction).
Computer skills and competences	Very good computer knowledge with Office applications and with programmes used in chemistry (ChemDraw, Mestrec, Origin).
Driving licence(s)	B category

Additional information

Membership of scientific societies

Romanian Society of Chemistry, Bucharest, Romania

LIST OF PUBLICATIONS

1. E. Georgescu, I. Vasian, M. Toader, L. Cană, Ş. Tötös, **M. Gorgan** " New data concerning the evolution of the european sunflower moth (*Homoeosoma nebulellum* den. & Schiff.) in sunflower crops in the south-east of Romania, Scientific papers. Series A. Agronomy, **2022**, VOL. LXV, NO. 1, 334-341.
2. I. Vasian, T. Florian, A. Nan, E. Gal, **M. Gorgan**, S. Tötös, V. Florian, I. Oltean " Diastereoselective synthesis of (8E, 10Z)-tetradeca-8,10-dienal, the sexual pheromone of the Horse-chestnut leaf-miner *Cameraria ohridella* (Lepidoptera: Gracillariidae)" Studia UBB Chemia LXVI, **2021**, 4, 205-224.
3. R. Apostol, T. Florian, I. Oltean, **M. Gorgan**, S. Tötös, I. Vasian " Research on the possibility of using semiochemical products in monitoring the species *Meligethes (Brassicogethes) Aeneus F.*" Agricultura, **2020**, 3-4, 115-116.
4. I. Oltean, R. Apostol, **M. Gorgan**, Ş. Tötös, I. Vasian, A. Morozan, V. Florian, T. Florian "Studies upon Efficacy of Some Semiochemical Products in Monitoring *Meligethes Aeneus F.* Specie" ProEnvironment Promediu, **2018**, 11 (36).
5. S. Totos, I. Vasian, **M. Gorgan**, R. Tötös, C. Lar "Efficient synthesis of (5Z, 7E)- dodecandienal, the sex pheromone of European pine moth *Dendrolimus pini*" Rev. Roum. Chim., **2018**, 63 (4), 315-319.
6. M. Tertis, **M. Bucsa**, G. Mesesan, A. Pirnau, C. G. Floare, R. Sandulescu, C. Cristea " DNA intercalating ability of four acridine-N-Oxydes derivatives investigated by spectral and electrochemical techniques" Farmacia, **2018**, 66 (4), 688-696.
7. T. Florian, L. I. Macavei, I. B. Hulujan, I. Vasian, S. Tötös, **M. Gorgan**, I. Oltean, V. Florian "Testing of semio-chemical products in monitoring and control of *Rhagoletis cerasi L.*" AgroLife Scientific Journal, **2018**, 7 (1), 61-68.
8. **M. Bucsa**, A. Pollnitz, R. A. Varga, A. Pîrnău, A. Silvestru, M. Vlassa "The ring-chain tautomeric equilibria of selenium macrocyclic compounds: the isolation of the ring tautomer" Dalton Trans., **2012**, 41, 4506-4510.
9. C. Onişor, M. Vlassa, G. Blăniţă, M. Coroş, **M. Bucsa**, C. Sarbu "A comparative study concerning estimated and computed partition coefficients of some precursors of peraza crown ethers", Central European J. Of Chem., **2010**, 8 (6), 1203-1209.
10. I. O. Marian, N. Bonciocat, M. Vlassa, **M. Bucsa**, R. Săndulescu, C. Cristea "Spectroelectrochemical studies of 9-substituted acridines with potential antitumor activity", Electroanalysis, **2010**, 22 (5), 542 – 548.

11. S. Tötös, I. Oprean, **M. Bucşa** "Application of the Ruthenium-Catalyzed Oxidative Cleavage of Olefins to the Aldehydes in the Synthesis of (S)-14-methyl-1-octadecene, the Sex Pheromone of *Lyonetia clerkella*", *Studia Universitatis Babeş-Bolyai, Chemia*, **2009**, 2, 61-64.
12. G. Blăniţă, **M. Bucşa**, M.Coroş, M.Vlassa "Synthesis of new functionalized macropolycyclic ligands based on triazacyclononane and tetraazacyclododecane", *Rev. Roum.Chim.*, **2008**, 53, 15-19;
13. **M. Bucşa**, I. Oprean, D. Ristoiu "Pheromones analysis by vibrational spectroscopy", *Environment & Progress*, **2007**, 11, 73-77.
14. G. Blăniţă, **M. Bucşa**, M. Vlassa "A convenient synthesis of peraza-crown ethers", *Synthetic Commun.*, **2006**, 36 (11), 1569-1573.

PARTICIPATION TO SCIENTIFIC EVENTS

- in România

1. **M. Gorgan**, Ş. Tötös, I. Vasian, A. Pîrnău, "The box tree moth: a new pathway to obtain (E)-11-hexadecenal pheromonal component", XXXVI-th National Conference of Chemistry, 4-7 September, **2022**, Călimăneşti-Căciulata;
2. I. Vasian, **M. Gorgan**, Ş. Tötös, "Efficient stereospecific synthesis of (E,Z)-2,13- octadecadienyl acetate, a major sex pheromone component of *Lepidopteran* species", XXXVI-th National Conference of Chemistry, 4-7 September, **2022**, Călimăneşti-Căciulata;
3. Ş. Tötös, I. Vasian, **M. Gorgan**, R. Tötös, "Stereo selective synthesis of (2E,4E,6Z)-trienoic methyl esters and their potential application in insect pheromone lures", XXXVI-th National Conference of Chemistry, 4-7 September, **2022**, Călimăneşti-Căciulata;
4. I. Vasian, **M. Gorgan**, Ş. Tötös, M.D. Duduman, "Synthesis, formulation and field test of synthetic sex pheromone of *Lymantria monacha* L. (LEPIDOPTERA: LYMANTRIIDAE) IUFRO WP 7.03.10 Methodology of forest insect and disease survey in Central Europe, Working Party Meeting, 16-20 September, **2019**, Suceava;
5. Ş. Tötös, G. Isaia, I. Vasian, **M. Gorgan**, „Combination of Verbenone and MCH pheromone repellents for the management and control of *Ips typographus*" IUFRO WP 7.03.10 Methodology of forest insect and disease survey in Central Europe, Working Party Meeting, 16-20 September, **2019**, Suceava;
6. I.Oltean, **M.Gorgan**, A.Pop, L.Macavei, T.Florian, "Use of semiochemical products in monitoring and control *Meligethes aeneus* species", 14-th International Symposium Prospects for the 3rd Millennium Agriculture, 24-26 September **2015**, Cluj-Napoca;
7. **M. Bucşa**, M. Vlassa, A. Silvestru, D.Kovala-Demertzi, R. Varga, "Selective complexation of functionalized aza-crown ethers", XXXI -th National Conference of Chemistry, 6-8 October, **2010**, Râmnicu-Vâlcea;
8. G. Blăniţă, **M. Bucşa**, M.Coroş, M.Vlassa, "Preparation of new covalent materials by means of dihydrogen bonding", *Supramolecular Chemistry – SUPCHEM*, 12-15 April, **2007**, Cluj-Napoca;
9. G. Blăniţă, **M. Bucşa**, M.Coroş, M.Vlassa, "Sinteze de liganzi macropoliciclici", XXIX -th National Conference of Chemistry, 4-6 October, **2006**, Călimăneşti-Căciulata;
10. **M.Bucşa**, G.Blăniţă, M.Coroş, D.Domide, D.Iridon, M.Moga, M.Vlassa, "Synthesis of new podands and aza-crown ethers", XXIX -th National Conference of Chemistry, 4-6 October, **2006**, Călimăneşti-Căciulata;
11. G. Blăniţă, **M. Bucşa**, M. Vlassa, "Obţinerea de Materiale Covalente cu Structură Cristalină. Transformări Cristal-Cristal a unor Materiale ce Conţin Legături de Dihidrogen în Legături Covalente Obţinerea de Materiale Covalente cu Structură Cristalină. Transformări Cristal-Cristal a unor Materiale ce Conţin Legături de Dihidrogen în Legături Covalente", XXVIII-th National Conference of Chemistry, 6-8 October, **2004**, Călimăneşti-Căciulata;

12. G. Blăniță, **M. Bucșa**, M. Vlăsa, "O Nouă Metodă de N-tosilare și de Preparare a Eterilor Peraza-Coroană", XXVIII-th National Conference of Chemistry, 6-8 October, **2004**, Călimănești-Căciulata.

- Abroad

1. C. Cristea, M. Tertîș, G. Meseșan, **M. Gorgan**, R. Săndulescu, "Acridine-N-oxide derivatives as DNA intercalators for label-free aptasensors. Electrochemical and spectral behavior." The XII ECHEMS, 6-9 June, **2017**, Milano Marittima, Italy;

2. D. Domide, D. Iridon, M. Moga, G. Blăniță, **M. Bucșa**, M. Coroș, M. Vlăsa, "Synthesis of new organic ligands", 5th International Conference of the Chemical Societies of the South-East European Countries, September 10-14, **2006**, Ohrid, Macedonia;

3. I. O. Marian, C. Cristea, R. Săndulescu, **M. Bucșa**, M. Vlăsa, "Spectroelectrochemical studies of 9-substituted acridines with potential antitumor activity", Drugs and Analysis, 16-19 May, **2006**, Namur, Belgium;

4. **M. Bucșa**, I. Oprean, D. Ristoiu, "Pheromones Analysis by Vibrational Spectroscopy", 5th European Conference on Mineralogy and Spectroscopy (ECMS), 4-8 September, **2004**, Viena, Austria.

BOOKS

1. D. R. Rusu, **M. Gorgan**, I. O. Marian, "Chimie – fizică generală", Editura Medicală Universitară "Iuliu Hațieganu", ISBN 978-606-075-025-3, **2021**.

2. D. R. Rusu, **M. Gorgan**, I. O. Marian, "Chimie – physique générale", Editura Casa Cărții de Știință, ISBN 978 – 606 – 17 – 1714 – 9, **2020**.

3. M. Vlăsa, **M. Bucșa**, "Logica reactivității în chimia organică" Vol. I, Vol. II, Editura Presa Universitară Clujeană, ISBN 978 – 973 – 595 – 201 – 3, **2010**.

PARTICIPATION TO PROJECTS

-as a project director

- 2020-2021 SEED grant
- 2018-2019: **DNA intercalating ability of four acridine-N-Oxydes derivatives investigated by spectral and electrochemical techniques**, grant to support competitiveness within "Babeș-Bolyai" University, Cluj-Napoca, **cod AGC 34216/25.09.2018**.

-as a team member

-2008-2011: Compozite pentru stocarea eficientă a hidrogenului la temperatura ambiantă – sursa de energie curată destinată pilelor de combustie, Contract No. 22 105/2008, COST-H, *Project director*: Ing. Ioan Mișan;

-2006-2008: Compuși seleniu- și telur- organici în chimia coordinativă, Contract No. 2-06-11-55/26.07.2006, COSETEORG, *Project director* Prof. dr. Anca Silvestru;

-2006-2009: Materiale avansate de stocare a hidrogenului pentru alimentarea pilelor de combustie, Contract No. 707, CEEX Grant, STOHIP, *Project director*: C.P.I. dr. Dan Lupu;

-2005-2008: Compuși organometalici hipervalenți ai elementelor din grupele principale (Sn, Pb, Sb, Bi, Se, Te), Contract No. 05-d11-16/4.10.2005, CEEX Grant, HYPORGMET, *Project director*: Prof. dr. Cristian Silvestru;

-2004-2006: Auto-asamblarea unor structuri cu arhitectură controlată folosind ca și unități de construcție complecși ai borohidruirii cu diverși azaeteri coroană - Contract No. 33374 / Cod CNCISIS 360, CNCISIS Grant, *Project director*: Prof. dr. Mircea Vlăsa;

-2002-2004: Realizarea de structuri capilare cu porozitate controlată necesară producerii tuburilor termice antigravitaționale - Contract No. 106/26.12.2002, MACHNATECH Grant, *Project director*: Prof. dr. Dumitru Ristoiu.