



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Bogdan Alexandru / Sava**
Telephone(s) 0040214233194 Mobile: 0040728062160
E-mail savabogdanalexandru@yahoo.com
Nationality romanian
Date of birth 01.29.1959
Gender male

Work experience

Dates	07.2010-present
Occupation or position held	Senior Researcher first degree
Main activities and responsibilities	Vitreous and ceramics for lasers, nanomaterials and thin films, new materials for agriculture and optoelectronics, sol-gel method, melting at high temperatures methods, structural characterization and properties of vitreous and vitroc ceramic materials
Name and address of employer	National Institute for Laser, Plasma and Radiation Physics, 409 th Atomistilor str., PO Box MG-36, 077125, Magurele, Bucharest, Romania
Type of business or sector	Materials for Lasers, Optoelectronics, Research-Development
Dates	06.2010-2013
Occupation or position held	Senior Researcher first degree
Main activities and responsibilities	Phosphate vitreous bulk and pelicular materials, optoelectronics purposes
Name and address of employer	National Institute for Research and Development in optoelectronics INOE 2000, 409 th Atomistilor str., 077125, Magurele, Bucharest, Romania
Type of business or sector	Optoelectronics, new materials, environment and medical applications
Dates	11-12.2011
Occupation or position held	Senior Researcher first degree
Main activities and responsibilities	Sol-gel, coatings, special glasses, advanced purity materials, bio-materials, ecological glasses, non-conventional techniques
Name and address of employer	National Institute for Research and Development for Electrical Engineering ICPE CA, 313 rd Splaiul Unirii, sector 3, 030138, Bucharest, Romania
Type of business or sector	Materials for Electrical Research-Development
Dates	01.2003-06.2010
Occupation or position held	Senior Researcher first degree
Main activities and responsibilities	Special glasses, sol-gel, coatings, quartz glass, special refractories, advanced purity materials, bio-materials, ecological glasses, nanomaterials, non-conventional techniques
Name and address of employer	SC National Institute of Glass SA Bucharest, 47 th Th. Pallady Blvd, S3, Romania
Type of business or sector	Glass Research-Development
Dates	09.1996-12.2002
Occupation or position held	Senior Researcher first degree, second degree
Main activities and responsibilities	Research and production quartz glass, special refractories, new techniques

Name and address of employer	SC MATPUR SA , Bucharest, 43 rd Garii Catelu Av., S3, Romania
Type of business or sector	Advanced purity materials, electronics and electro-techniques materials research and development
Dates	05.1996–09.1996
Occupation or position held	Technological engineer
Main activities and responsibilities	Research for the optimization of electronic's glasses
Name and address of employer	SC Baneasa SA, Bucharest, Romania
Type of business or sector	Electronics
Dates	03.1996–05.1996
Occupation or position held	Scientific Manager
Main activities and responsibilities	Management of research projects
Name and address of employer	Dalex SRL, Bucharest, Romania
Type of business or sector	Research and production of electronic's glass
Dates	08.1984-03.1996
Occupation or position held	Chief of Optical Glass Division, Senior Researcher second degree, Senior Researcher third degree, Scientific Researcher, Engineer Chief of equipe
Main activities and responsibilities	Research, development and production in optical glass, glass filters, special glass, glass-ceramics, ceramics and refractories domains
Name and address of employer	SC National Institute of Glass SA Bucharest, 47 th Th. Pallady bvd, S3, Romania
Type of business or sector	Glass Research-Development and Production
Dates	09.1983–07.1984
Occupation or position held	Technologic engineer
Main activities and responsibilities	Flat glass obtaining
Name and address of employer	Flat glass factory Scaieni, Prahova, Romania
Type of business or sector	Flat glass production
Education and training	
Dates	10.2007
Title of qualification awarded	Graduating certificate
Principal subjects/occupational skills covered	Project and management of European research projects
Name and type of organisation providing education and training	Bucharest Chamber of Commerce and Industry in collaboration with University "Politehnica" Bucharest – Advanced technologies centre CTANM, Romania
Dates	10.2003 – 07.2007
Title of qualification awarded	Doctor of Philosophy Diploma, Chemical engineering domain
Principal subjects/occupational skills covered	Vitreous layers with electrical and optical properties, obtained from gels
Name and type of organisation providing education and training	University "Politehnica" Bucharest, Faculty of Applied Chemistry and Materials Science, Romania
Dates	01.1985 - 11.1985
Title of qualification awarded	Post University Diploma in special refractories
Principal subjects/occupational skills covered	Special refractories
Name and type of organisation providing education and training	University "Politehnica" Bucharest, Faculty of Applied Chemistry and Materials Science, Romania
Dates	09.1978-07.1983
Title of qualification awarded	Engineer Diploma
Principal subjects/occupational skills covered	Chemical Technology, Silicates and Oxide Compounds Technology

Name and type of organisation providing education and training University "Politehnica" Bucharest, Faculty of Applied Chemistry and Materials Science, Romania

Dates 09.1973-06.1977

Title of qualification awarded School-leaving examination Diploma

Principal subjects/occupational skills covered Mathematics, Physics, Chemistry, Romanian language

Name and type of organisation providing education and training „Mihai Viteazul" College, Ploiesti, Romania

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level ()*

English Language

French Language

German Language

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
C1	C1	B2	B2	B2	
C1	C2	B2	B2	B2	
A1	A1	A1	A1	A1	

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences *Professional organization membership:* Romanian Glass Association (AROS); Romanian Materials Association (ARM); Romanian Chemists Association; International Sol-Gel Society

International Cooperation: EC TEMPUS, 1991-1993, participant, MNT-ERA-NET 2011-2013, participant, Bilateral Romania-Moldavia 2010-2012, participant.

Organisational skills and competences

Project responsible of 3 projects in PNII frame, 2007-2011
 Project Technical Manager in CEEEX frame, 2006-2008;
 Project responsible in CEEEX frame, 2005-2008;
 Project Manager in MATNANTECH frame, 2004-2006;
 Project responsible in INVENT frame, 2003-2005;
 Project responsible in MATNANTECH frame, 2001-2004;
 Manager of 3 national projects in RELANSIN frame, 2000-2002;
 Manager of 3 national projects in ORIZONT 2002 frame, 1999-2002;
 Manager of 7 national projects in ORIZONT 2000 frame, 1996-2000;
 Manager of 5 national projects, 1990-1995;
 Scientific Manager of Dalex society, 1996;
 Chief of Optical Glass Division, 1993-1995;
 Deputy Chief of Optical Glass Division, 1992-1993;
 Engineer Chief of Division in Optical Glass Division, 1984-1985.

Personal competences

I am open, honest, positive, flexible and constructive.
 I am motivated, tenacious and enterprising.
 I am responsible and able to draw the line and take responsibility for learning new things.
 I reflect and act on professional and personal feedback from colleagues.
 I am able to learn from my own mistakes.
 I perform tasks quickly and with the quality needed.
 I can overcome obstacles and get the job done.
 I have overview and can see the overall picture and connections between tasks.
 I can distinguish what is important from what is less important.
 I am able to assess deadlines realistically and meet them.

Technical skills and competences

Judicial technical expert certificate in domains Chemistry and Glass and Ceramics, Romania Justice Ministry, 25.11.2011.

Patents author:

Romanian patent RO 122828 B1, 2010, titled „Optoelectronic accordable comutators”, owner: INCDFM Bucharest, authors: Igor Nazarenco, Jenő Jaklovsky, Ioana Albeanu, Mirela Dumitrescu, Bogdan Alexandru Sava, D. Ulieru.

Romanian patent RO 121337 B1, 2007, titled “Technic for cadmium sulpho-selenides, zinc-cadmium sulphides and zinc-cadmium sulpho-selenides obtaining, for colored glass, filter glass, ceramic colours and plastics colours obtaining, for yellow-orange-red colours”; owner: MATPUR SA Bucharest; authors: Bogdan Alexandru Sava, Horatiu Niciu.

Romanian patent 98788/02.06.1987, titled “Technic for refractory products obtaining”; owner: National Institute of Glass Bucharest; authors: Bogdan Alexandru Sava, I. Dragoman, Maria Hanganu, Constanta Grecicosei, A. Szabo.

Patent proposal, named “Vitreous potassium-phosphate fertilizers and method of producing them”, registered at OSIM at 16.11.2011, with no. A/01159/2011, national deposit no. a 2011 01159, owner: INFLPR Magurele; authors: Bogdan Alexandru Sava, Lucica Boroica, Mihai Sava, Mihai Elisa.

Patent proposal, named „Alumino-phosphate glasses containing rare-earth ions, used for optical sensors and the obtaining method for them”, registered at OSIM at 01.04.2014, national deposit no. A/00251, owners: INOE2000 Magurele, INFLPR Magurele; authors: Mihail Elisa, Bogdan Alexandru Sava, Lucica Boroica, Raluca Iordanescu, Ionut Feraru, Mihai Eftimie, Anca Beldiceanu.

Reviewer for prestigious journals: J. of Sol-Gel Science and Technology; J. of Non Cryst. Solids; Physics and Chemistry of Glass; Physica B, J. Molecular Structure, Physica Status Solidi A, Annals of Bucharest University – Chemistry.

Excellent Scientific Achievements Diploma in RELANSIN frame.

Approval expert of the research of Polytechnic University of Bucharest, Faculty of Industrial Chemistry Department SIMO-1995 -2005; Approval expert of the research Institute for Materials Research and Engineering Design - Procema-1997-1999

Technical competences in next domains, research and development: Optical glasses and optical glass filters; Refractories for glass industry; Coloured, opal and technical glasses; New methods for glass preparation: sol-gel, coprecipitation, plasmachemical and microwave methods; Vitroceram; Quartz glasses and doped quartz glasses; High alumina and silice products; High purity materials; Nano structured materials; Glasses for optoelectronics, non-linear optics and electronics; High refractories and high durability materials; Nano-materials; Bio-vitro-materials; Ecological glasses, Vitreous fertilizers for plants; Ceramic composites; Plasma-chemistry and microwave heating for ceramic materials obtaining; Inorganic colorants for glass and plastics.

Achievement of around 30 new technologies for special materials obtaining, among whom 17 in last 10 years.

Computer skills and competences

Computer knowledge: Word, Fortran, Excel, Power point, Corel, Paint, Origin

Driving licence

Driving licence, B category

Annexes

Annex 1. Papers published in ISI and other database indexed journals in last years

Annex 2. Contribution in books

Annex 3. Papers presented at International Conferences and published in Conferences books.

Annex 4. Main achievements

Date: 08.12.2015

Signature:

ANNEX 1

Papers published in ISI and other database indexed ISSN journals in last years

1. B. A. Sava, "Investigarea sintezei prin metoda sol-gel a unor sticle în sistemul ZnO-TiO₂-SiO₂", Revista De Chimie, Bucuresti, 55, 4, 2004, p. 200-202, **IDS Number:** 829FI, **ISSN:** 0034-7752
2. S. Craciun, E. Craciun, B. A. Sava, "The silicone nitride ceramics obtaining by microwave field sintering method", Rev. Rom. de Materiale, vol XXXV, nr. 2, 2005, p 85-97.
3. B. A. Sava, "Sinteza prin metoda sol-gel a sticlelor în sistemul ZnO-TiO₂-B₂O₃", Revista De Chimie, Bucuresti, 56, 4, 2005, p. 387-389, **IDS Number:** 938EE, **ISSN:** 0034-7752.
4. I. Nazarenco, Jaklovszky J., Ghiordănescu V., Sava B. A., Albeanu I., Dumitrescu M., Ulieru D., "A^{UV} photoresistances by sintering-sublimation technics", Journal of Optoelectronics and Advanced Materials, Vol. 7, No. 4, august 2005, p. 2113-2118, **scor influenta 2011: 0,3299**, **IDS Number:** 957XK, **ISSN:** 1454-4164.
5. Nazarenco Igor, Sava Bogdan Alexandru, Aurelia Meghea, Dumitru Ulieru, "A Combined Sintering-Sublimation Method to Grow Light Responsive Polycrystalline Thin Films", Molecular Crystals and Liquid Crystals, edit. M M Labes, Dept of Chemistry, Temple Univ Philadelphia, Pennsylvania, USA, vol 448, is 1, june 2006, pp 211/(813)-221/(823), **ISSN:** 1563-5287 (electronic), **DOI:** 10.1080/15421400500400842, **scor influenta 2011: 0,36702**, **IDS Number:** 013JD, **ISSN:** 1542-1406.
6. B.A. Sava, "The study of the vitreous materials obtained by the sol-gel method, in the ternary ZnO-V₂O₅-B₂O₃ system", Revue Roumaine de Chimie, 11, 2006, 1079-1087, **IDS Number:** 164GP, **ISSN:** 0035-3930.
7. B.A.Sava, Adriana.Diaconu, M.Elisa, C.E.A.Grigorescu, I.C.Vasiliu, A.Manea, "Structural characterization of the sol-gel oxide powders from the ZnO-TiO₂-SiO₂ system", Superlattices and Microstructures (2007), doi:10.1016/j.spmi.2007.04.004, volume 42, issue 1-6, pages 314-321, Impact factor 2006 1,259, **scor influenta 2011: 0,86119**, **IDS Number:** 222BN, **ISSN:** 0749-6036.
8. Sava Bogdan Alexandru, Țârdei Christu, Stamatina Ioan, Năstase Claudia and Năstase Florin, "Ceramic Composites with improved Thermo-Mechanical Properties", J. Optoelectron. Adv. Mater., vol. 9, iss. 7 (2007), 2056-2062, ISI Impact factor for 2006 1.106, **ISSN ON-LINE:** 1841-7132, **scor influenta 2011: 0,3299**, **IDS Number:** 197UX, **ISSN:** 1454-4164.
9. M. Elisa, C. Vasiliu, C. Grigorescu, B.A. Sava, A. Diaconu, H.J. Trodahl, M. Dalley, "Optical transmission and Raman spectroscopy of aluminophosphate glasses containing chromium and manganese ions", Glass Technology: European Journal of Glass Science and Technology Part A, 48 (5), october 2007, pages 247-251, **scor influenta 2011: 0,88136**, **IDS Number:** 239KA, **ISSN:** 1753-3546.
10. Sava Bogdan Alexandru, Visan Teodor, "Raman and FTIR studies of the sol-gel glasses in the ZnO-TiO₂-SiO₂ system", U.P.B. Sci. Bull., series B, 69, 1, 2007, 11-24, **ISSN:** 1454-2331.
11. Boroica Lucica, I. Boroica, E. Rotiu, B. A. Sava, R. Medianu, C. Timus, D. Hülsenberg, "Radio frequency magnetron sputtering deposition of borate and phosphate glass films", Int. Conference Micro- to Nano-Photonics - ROMOPTO 2006 - Eighth Conference on Optics, August 28-31. 2006 Sibiu Romania, publicat in Proceedings of SPIE - The International Society for Optical Engineering 6785/2007, art. no. 678524, p. 24-27, Editor [Valentin I. Vlad](#), 01.08.2007, DOI: 10.1117/12.756819, **IDS Number:** BGU42, **ISSN:** 0277-786X, **ISBN:** 978-0-8194-6949-6, **Publisher:** SPIE-INT SOC OPTICAL ENGINEERING, 1000 20TH ST, PO BOX 10, BELLINGHAM, WA 98227-0010 USA.
12. B.A. Sava, Adriana Diaconu, Luminita-Daniela Ursu, Lucica Boroica, M. Elisa, Cristiana Grigorescu, Cristina Vasiliu, I. Stamatina, F. Nastase, Claudia Nastase, Anca Dumitru, "Ecological silicate glasses", Advanced Materials Research Vols. 39-40 (2008) pp 667-670, **IDS Number:** BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSTRUTSTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
13. Adriana Diaconu, B.A. Sava, Luminita-Daniela Ursu, Ileana Mitu, Elisabeta Rosu, D. Radu, O. Dumitrescu, M. Eftimie "Study on the recycling of borate silicate vitreous waste with capitalization of heavy metals sludge", Advanced Materials Research Vols. 39-40 (2008) pp 659-662, **IDS Number:**

- BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
14. Luminita-Daniela Ursu, Adriana Diaconu, B.A. Sava, Lucica Boroica, Ileana Mitu, Elisabeta Rosu, D. Radu, M. Dinulescu, M. Eftimie, "A study of the industrial waste incorporating in glass", *Advanced Materials Research Vols. 39-40* (2008) pp 675-678, **IDS Number:** BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
 15. B. A. Sava, A. Dinischiotu, A. Cîmpean "Bio compatible glass for ionomeric cements" *Optoelectronics and Advanced Materials – Rapid Communications*, Vol. 2, No. 5, May 2008, p. 258 – 261, **IDS Number:** 310MR, **ISSN:** 1842-6573.
 16. B. A. Sava, A. Diaconu, D. Ursu, M. Elisa, I. Stamatina, F. Nastase, C. Nastase, "Structure of ecological lead free silicate glasses", *Optoelectronics and Advanced Materials – Rapid Communications* Vol. 3, No. 5, May 2009, pp. 435 – 438, **IDS Number:** 478XP, **ISSN:** 1842-6573.
 17. M. Elisa, B. Sava, A. Diaconu, D. Ursu, R. Patrascu, „Fluorescence of copper, manganese and antimony ions in phosphate glass host”, *J. Non-Cryst. Solids*, doi:10.1016/j.jnoncrysol.2009.03.010, 355, 37-42 (2009) 1877–1879, **scor influenta 2011 4,32203; IDS Number:** 504ML, **ISSN:** 0022-3093.
 18. B. A. Sava, Adriana Diaconu, Lucica Boroica, Daniela Ursu, T. Visan, M. Elisa and Alina Balu, "Raman and ESR study of sol-gel materials from ZnO-TiO₂-B₂O₃ system", *J. Non-Cryst. Solids*, doi:10.1016/j.jnoncrysol.2009.06.023, 355 (2009) 2020–2022, **scor influenta 2011: 4,32203; IDS Number:** 504ML, **ISSN:** 0022-3093.
 19. E. M. Rotiu, B. A. Sava, M. Elisa, "Molecular Dynamics Simulation for Ternary Lithium-Aluminium-Phosphate Glass", *Optoelectronics and Advanced Materials – Rapid Communications* Vol. 3, No. 10, October 2009, pp 1050-1055; **IDS Number:** 516XN, **ISSN:** 1842-6573 .
 20. S. Peretz, B. Sava, M. Elisa, G. Stanciu, "Cadmium sulphide nanoparticles embedded in polymeric matrices", *Journal of Optoelectronics and Advanced Materials*, Vol. 11, No. 12, decembrie 2009, pp 2098-2104, **scor influenta 2011: 0,3299; IDS Number:** 542KA, **ISSN:** 1454-4164
 21. M. Elisa, B. A. Sava, A. Diaconu, L. Boroica, D. Ursu, I. Stamatina, F. Nastase, C. Nastase, "Thermal properties of ecological phosphate and silicate glasses", *Glass Physics and Chemistry*, Vol. 35, No. 6, 2009, pp. 596–601, ISSN 1087-6596, **scor influenta 2011, 0,80508; IDS Number:** 541FJ, **ISSN:** 1087-6596.
 22. M. Elisa, B.A. Sava*, A. Volceanov, R.C.C. Monteiro, E. Alves, N. Franco, F.A. Costa Oliveira, H. Fernandes, M.C. Ferro, "Structural and thermal characterization of SiO₂-P₂O₅ sol-gel powders upon annealing at high temperatures", *J. Non-Cryst. Solids*, 356, 9-10, 15 martie 2010, pp. 495-501, doi:10.1016/j.jnoncrysol.2009.12.006, **scor influenta 2011: 4,32203; IDS Number:** 571QO, **ISSN:** 0022-3093.
 23. Roxana Patrascu, G. Darie, A. Volceanov, B. A. Sava, M. Elisa, Adina Stanculea, "Model of complex energy and environmental analysis of processes from glass industry", *Romanian Journal of Materials*, 40 (2) 2010, 153-160, impact factor 0,242; **IDS Number:** 619SM, **ISSN:** 1583-3186
 24. M. Elisa, B. A. Sava, R. Iordanescu, I. Feraru, C. Vasiliu, M. Calin, A. Diaconu, L. D. Ursu, L. Boroica, Z. Plaiasu, F. Nastase, C. Nastase, A. Dumitru, „Obtaining and characterization of calcium/magnesium/iron lithium phosphate glasses", *Optoelectronics and Advanced Materials Rapid Communications*, Vol. 4, No. 9, September 2010, p. 1301 – 1303; **IDS Number:** 671OJ, **ISSN:** 1842-6573.
 25. M. Sava, B. A. Sava, Lucica Boroica, Adriana Diaconu, Luminita-Daniela Ursu, M. Elisa, "Efficiency of vitreous phosphate-potassium fertilizers on autumn crops", *Scientific papers, UASMV Bucharest, Series A*, Vol. LIII, 2010, ISSN 1222-5339, pp. 187-193
 26. M. Elisa, I. C. Vasiliu, B. A. Sava, F. Nastase, C. Nastase, A. Volceanov, V. Dima, S. Stoleriu, M. Eftimie, "Structural and morphological characterization of silicophosphate thin films containing Nd³⁺ ions", *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B*, **51** (6), 2010, pp. 309–317, **factor impact 2012: 0,628; scor influenta 2011, 1,94068, IDS Number:** 704TQ, **ISSN:** 1753-3562.
 27. M. Elisa, R. Iordanescu, B. A. Sava, G. Aldica, V. Kuncser, C. Valsangiacom, G. Schinteie, F. Nastase, C. Nastase, V. Bercu, A. Volceanov, S. Peretz, "Optical and structural investigations on iron-

- containing phosphate glasses”, *J Mater Sci* (2011) 46, pp. 1563–1570, DOI 10.1007/s10853-010-4963-9, Published online: 14 October 2010, 0022-2461, Impact factor 2009 1,471, **scor influenta 2011, 1,18415, IDS Number: 711ZY, ISSN: 0022-2461.**
28. Luminița Daniela Ursu, Adriana Diaconu, Bogdan Alexandru Sava, Adrian Volceanov, U.P.B. Sci. Bull., Series B, Vol. 73, Iss. 2, 2011, pp. 1-16, ISSN 1454-2331.
 29. B. A. Sava, Lucica Boroica*, M. Sava, M. Elisa “Vitreous potassium-phosphate materials containing nitrogen as agricultural fertilizers” *Romanian Journal of Materials*, 41 (4) 2011, ISSN 1583-3186, **ISI impact factor 0,242**, pp. 371-382.
 30. B. A. Sava, L. Boroica*, M. Sava, M. Elisa, C. I. Vasiliu, F. Nastase, C. Nastase, R. Medianu “Potassium phosphate glasses used as agro-fertilizers with controlled solubility” *Journal of Optoelectronics and Advanced Materials*, Vol. 13, No. 11-12, November – December 2011, p. 1534 – 1541, **ISI impact factor 0.46, scor influenta 2012, 0,33089, IDS Number: 872UC, ISSN: 1454-4164.**
 31. M. Elisa, B. A. Sava, I. C. Vasiliu, F. Nastase, C. Nastase, A. Volceanov, S. Stoleriu “Structural and morphological characterization of Pr³⁺ and Er³⁺-containing SiO₂-P₂O₅ sol-gel thin films” *Materials Chemistry and Physics*, ISSN: 0254-0584, impact factor: 2,353, 5-year impact factor: 2,462, Online publication complete: 23-NOV-2011, DOI: 10.1016/j.matchemphys.2011.10.031, 131 (2012) 647–665, **scor influenta 2012, 1,48387, IDS Number: 890BR, ISSN: 0254-0584**
 32. B.A. Sava, M. Elisa, I.C. Vasiliu, F. Nastase, S. Simon, “Investigations on sol-gel process and structural characterization of SiO₂-P₂O₅ powders”, *J. Non-Cryst. Solids*, 358 (2012), pp. 2877-2885, DOI: 10.1016/j.jnoncrysol.2012.07.016, **ISI impact factor 2011: 1,537, scor influenta 2012, 4,31224, IDS Number: 020VX, Accesion number: WOS: 000309845800006, ISSN: 0022-3093.**
 33. D. Z. Grabco, O. A. Shikimaka, M. Elisa, B. A. Sava, L. Boroica, K. Pyrtsak, A. Prisacaru, Z. Danitsa, I. Feraru, D. Ursu, “Features of the Mechanical Properties of Phosphate Glasses Doped with Rare Earth Elements under Indentation”, *Surface Engineering and Applied Electrochemistry*, 2012, Vol. 48, No. 4, pp. 365–374. JUL 2012, **impact factor 2011: 0.33; IDS Number: 014EC, accesion number: WOS: 000309356900012; 10.3103/S1068375512040072, ISSN: 1068-3755, Allerton Press, Inc., 2012.** Original Russian Text: D.Z. Grabco, O.A. Shikimaka, M. Elisa, B.A. Sava, L. Boroica, K. Pyrtsak, A. Prisacaru, Z. Danitsa, I. Feraru, D. Ursu, 2012, published in *Elektronnaya Obrabotka Materialov*, 2012, No. 4, pp. 83–93, ISSN: 0013-5739.
 34. D. Z. Grabko, O. A. Shikimaka, M. Elisa, B. A. Sava, L. Boroica, E. Harea, C. Pirtac, A. Prisacaru, I. Feraru, D. Ursu, “The Surface Morphology and Strength Properties of SiO₂-P₂O₅-Nd₂O₃ Glassy Films”, *Surface Engineering and Applied Electrochemistry*, 2012, Vol. 48, No. 5, pp. 430–438, **impact factor 2011: 0.33; IDS Number: 050NZ, ISSN: 1068-3755, © Allerton Press, Inc., 2012;** Original Russian Text © D. Z. Grabko, O. A. Shikimaka, M. Elisa, B. Sava, L. Boroica, E. Harea, C. Pirtac, A. Prisacaru, I. Feraru, D. Ursu, 2012, published in *Elektronnaya Obrabotka Materialov*, 2012, No. 5, pp. 63–73.
 35. M. Elisa, B. A. Sava*, I. C. Vasiliu, E. M. Carstea, I. Feraru, C. Tanaselia, M. Senila, B. Abraham, “Optical and structural characterization of Eu³⁺, Dy³⁺, Ho³⁺ and Tm³⁺-doped phosphate glasses”, *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B*, October 2012, 53 (5), 219–224, **impact factor 2011: 0,628; scor influenta 2012: 1,94093, IDS Number: 038OB, ISSN: 1753-3562.**
 36. L. Boroica, B. A. Sava, M. Sava, M. Elisa, “Structure and properties of phosphate glasses containing Mo, B, V and Fe”, *Journal of Optoelectronics and Advanced Materials*, Vol. 15, No.3 - 4, March – April 2013, p. 187 – 192, **ISI impact factor 2011: 0.457, scor influenta 2012, 0,33089, IDS Number: , ISSN: 1454-4164.**
 37. Mihai Elisa, Bogdan Alexandru Sava, Ileana Cristina Vasiliu, Regina Monteiro, J.P. Veiga Luminita Ghervase, Ionut Feraru, Raluca Iordanescu, “Optical and structural characterization of samarium and europium-doped phosphate glasses”, *Journal of Non-Crystalline Solids*, 369 (01 iunie 2013), pp. 55-60, DOI information: 10.1016/j.jnoncrysol.2013.03.024, **ISI impact factor 2012: 1,597, scor influenta 2012, 4,31224, IDS Number: 151WX, ISSN: 0022-3093, 01 iunie 2013.**
 38. B. A. Sava, L. Boroica, M. Elisa, “Synthesys of rare-earth-doped phosphate glasses with improved optical properties”, *Romanian Journals of Materials* 2013, 43 (3) 339-346

39. C. Nico, M.P.F. Graça, M. Elisa, B.A. Sava, R.C.C. Monteiro, L. Rino, T. Monteiro, "Effects of ultraviolet excitation on the spectroscopic properties of Sm³⁺ and Tb³⁺ doped aluminophosphate glasses", *Optical Materials* 10/2013 35(12):2382-2388, ISSN 0925-3467, scor rel infl ian 2012 1,66032, factor de impact relativ ian 2012 0,795, factor de impact ISI 1,918, Scor de influenta: 1.184, **IDS Number:** , <http://dx.doi.org/10.1016/j.optmat.2013.06.036>, **DOI:** 10.1016/j.optmat.2013.06.036
40. B.A. Sava, M. Elisa*, L. Boroica, R.C.C. Monteiro, "Preparation method and thermal properties of samarium and europium-doped aluminophosphate glasses", *Materials Science and Engineering B, Advanced Functional Solid-state Materials* 178 (2013) 1429– 1435, ISSN 0921-5107, **factor de impact ISI** 1,846, **IDS Number:** ; **DOI:** 10.1016/j.mseb.2013.09.001
41. M. Elisa, B. A. Sava, I. C. Vasiliu, R. C. C. Monteiro, C. R. Iordanescu, I. Feraru, L. Ghervase, C. Tanaselia, M. Senila, B. Abraham, "Investigations on optical, structural and thermal properties of phosphate glasses containing terbium ions", *IOP Conf. Series: Materials Science and Engineering*, 47, 2013, 012025, doi:10.1088/1757-899X/47/1/012025
42. C. Nico, R. Fernandes, M.P.F. Graça, M. Elisa, B.A. Sava, R.C.C. Monteiro, L. Rino, T. Monteiro, "Eu³⁺ luminescence in aluminophosphate glasses", *Journal of Luminescence*, 145 (2014) 582–587, ISSN 0022-2313, Scor influenta 2012 1,66325, Factor relativ impact 2012 0,85, factor de impact ISI 2,144, **IDS Number:** , **DOI:** 10.1016/j.jlumin.2013.08.041
43. Roque S. Soares, Regina C. C. Monteiro, Maria M. R. A. Lima, Bogdan A. Sava, Mihail Elisa, "Phase transformation and microstructural evolution after heat treatment of a terbium-doped lithium–aluminum phosphate glass", *Journal of Materials Science*, July 2014, Volume 49, Issue 13, pp 4601-4611, ISSN 0022-2461, factor de impact ISI 2,163
44. Bogdan Sava, Mihail Elisa, Cristina Bartha, Raluca Iordanescu, Ionut Feraru, Carmen Plapcianu, Roxana Patrascu, "[Non-isothermal free-models kinetic analysis on crystallization of europium-doped phosphate glasses](#)", *Ceramics International*, **DOI:**10.1016/j.ceramint.2014.04.089, Volume 40, Issue 8 PART A, September 2014, Pages 12387-12395
45. Roque S. Soares, Regina C. C. Monteiro, Andreia A. S. Lopes, Maria M. R. A. Lima, Bogdan A. Sava, Mihail Elisa, "Crystallization and microstructure of Eu³⁺-doped lithium aluminophosphate glass", *J. Non-Cryst. Solids* 403 (2014) 9-17
46. L. D. Ursu, I. C. Vasiliu, I. Feraru, Lucica Boroica, B. A. Sava "FTIR and RAMAN structural studies of glasses with copper and nikel wastes", *Romanian Journal of Materials* 2014, 44 (3), 311 – 316
47. Oana Cătălina Mocioiu, Irina Atkinson, Jeanina Pandele, Lucica Boroica, Bogdan Sava, Ana Maria Mocioiu, Maria Zaharescu, Protective coatings for the silicate glasses containing Fe₂O₃, *Rev. Roum. Chim.*, 59(3-4), 2014, 267-272
48. D. Grabco, O. Shikimaka, M. Elisa, B. Sava, L. Boroica, E. Harea, C. Pyrtsac, A. Prisacaru, Z. Danitsa, "Regularities of the formation of the microstructure of phosphate glasses doped with rare-earth elements", *Moldavian Journal of the Physical Sciences*, Vol. 13, Nr. 3-4, 2014, pp 174-187
49. M. Sofronie, M. Elisa, B. A. Sava, L. Boroica, M. Valeanu, V. Kuncser, "Rapid determination of Faraday rotation in optical glasses by means of secondary Faraday modulator", *Review of Scientific Instruments* 86, 053905 (2015); DOI: 10.1063/1.4920920, Accession Number: WOS:000355923700028
50. Olga Shikimaka, Daria Grabco, Bogdan Alexandru Sava*, Mihail Elisa, Lucica Boroica, Evghenii Harea, Constantin Pyrtsac, Andrian Prisacaru, Zinaida Barbos, "Densification contribution as a function of strain rate under indentation of terbium-doped aluminophosphate glass", *Journal of Materials Science*, DOI 10.1007/s10853-015-9460-8, 2015
51. B. A. Sava, C. Tardei, C. M. Simonescu, L. Boroica, A. Melinescu, "Hydroxyapatite nanopowders obtained by sol-gel method, synthesis and properties", *Optoelectronic and Advanced Materials-Rapid Communications*, 9 (11-12), 2015, 1415 – 1424
52. Valeanu, Mihaela; Sofronie, Mihaela; Galca, Aurelian Catalin; Tolea, Felicia; Elisa, Mihai; Sava, Bogdan; Boroica, Lucica; Kuncser, Victor; "Relationship between magnetism and magneto-optical effects in Rare Earth doped aluminophosphate glasses", accepted in dec 2015 for publication in *Journal of Physics D: Applied Physics*

ANNEX 2

ISBN books

1. Boroica Lucica, I. Boroica, E. Rotiu, B. A. Sava, R. Medianu, C. Timus, D. Hülsenberg, "Radio frequency magnetron sputtering deposition of borate and phosphate glass films", Int. Conference Micro- to Nano-Photonics - ROMOPTO 2006 - Eighth Conference on Optics, August 28-31. 2006 Sibiu Romania, publicat in Proceedings of SPIE - The International Society for Optical Engineering 6785/2007, art. no. 678524, p. 24-27, Editor [Valentin I. Vlad](#), 01.08.2007, DOI: 10.1117/12.756819, **IDS Number:** BGU42, **ISSN:** 0277-786X, **ISBN:** 978-0-8194-6949-6, **Publisher:** SPIE-INT SOC OPTICAL ENGINEERING, 1000 20TH ST, PO BOX 10, BELLINGHAM, WA 98227-0010 USA.
2. B.A. Sava, Adriana Diaconu, Luminita-Daniela Ursu, Lucica Boroica, M. Elisa, Cristiana Grigorescu, Cristina Vasiliu, I. Stamatin, F. Nastase, Claudia Nastase, Anca Dumitru, "Ecological silicate glasses", Advanced Materials Research Vols. 39-40 (2008) pp 667-670, **IDS Number:** BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
3. Adriana Diaconu, B.A. Sava, Luminita-Daniela Ursu, Ileana Mitiu, Elisabeta Rosu, D. Radu, O. Dumitrescu, M. Eftimie "Study on the recycling of borate silicate vitreous waste with capitalization of heavy metals sludge", Advanced Materials Research Vols. 39-40 (2008) pp 659-662, **IDS Number:** BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
4. Luminita-Daniela Ursu, Adriana Diaconu, B.A. Sava, Lucica Boroica, Ileana Mitiu, Elisabeta Rosu, D. Radu, M. Dinulescu, M. Eftimie, "A study of the industrial waste incorporating in glass", Advanced Materials Research Vols. 39-40 (2008) pp 675-678, **IDS Number:** BHX26, **ISSN:** 1022-6680, **ISBN:** 978-0-87849-387-6, **Publisher:** TRANS TECH PUBLICATIONS LTD, LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND.
5. Lucica Boroica, B. A. Sava, M. Sava, M. Elisa, "Structure and properties of phosphate glasses containing Mo, B, V and Fe", 6th International Conference on Materials Science and Condensed Matter Physics, MSCMP, Chisinau, Republica Moldova, 2012, lucrare MSP (Materials and Structure Processing), Conference book, p. 71, ISBN 978-9975-66-290-1.
6. D. Grabco, O. Shikimaka, M. Elisa, B. Sava, L. Boroica, E. Harea, C. Pyrtsac, A. Prisacaru, Z. Danitsa, I. Feraru, D. Ursu, "Surface morphology and strength behavior of vitreous films doped by neodymium", 6th International Conference on Materials Science and Condensed Matter Physics, MSCMP, Chisinau, 11-14 septembrie 2012, Conference book, p. 134, ISBN 978-9975-66-290-1.
7. Mihai Elisa, Bogdan Alexandru Sava, Ileana Cristina Vasiliu, R. C. C. Monteiro, Luminita Ghervase, Ionut Feraru, Claudiu Tanaselia, M. Senila, B. Abraham, "Investigations on thermal, optical and structural properties of phosphate glasses containing terbium ions", 2nd International Conference on Competitive Materials and Technology Processes – IC-CMPT2, Miskolc – Lillafured, Hungary, October 8-12, 2012, Book of Abstracts, p.75, ISBN: 978-963-08-4874-9.
8. B. A. Sava, O. Shikimaka, D. Grabco, M. Elisa, L. Boroica, E. Harea, C Pyrtsac, "Thermally induced indentation recovery in terbium doped alumino-phosphate glasses", 3rd International Conference on Competitive Materials and Technology Processes, Miskolc-Lillafured, Hungary, 06-10 oct 2014, Abstract Book, ISBN 978-963-12-0334-9, p 96
9. B. A. Sava, M. Elisa, L. Boroica, O. Shikimaka, D. Grabco, V. Kuncser, R. Medianu, "Rare-earth doped phosphate glasses for magneto-optical devices", 3rd International Conference on Competitive Materials and Technology Processes, Miskolc-Lillafured, Hungary, 06-10 oct 2014, Abstract Book, ISBN 978-963-12-0334-9, p 97

ANNEX 3

Papers presented at International conferences and published in Conferences books, in 2001-2014

1. Halalau, B.A. Sava, "Obtinerea sticlelor tip flint greu", Buletin informativ CISCIF, Bucuresti, 1989, pp 75-77
2. B.A. Sava, "Agitatoare de samot pentru obtinerea sticlei optice", Buletin informativ CISCIF, Bucuresti, 1989, pp 83-85
3. B.A. Sava, "Glasses and glass ceramics in ZnO-TiO₂-SiO₂ system by sol-gel route", Eight CIMTEC, Florence, Italy, 1994, vol 3, p 516-519.
4. B.Mitrasca, Dana Mitrasca, Luminita Andrei, Nicoleta Udrea, G.Batrinescu, Dana Garganciu,, Liliana Pasare, Georgeta Popescu, Neluta Neacsu, B.Sava, H.Niciu "Obtinerea substraturilor ceramice prin depunere", Conferinta de Chimie si Inginerie Chimica, 16-18 oct.1997, vol.2, p 458-462
5. Amalia Petrescu, B.A. Sava, H. Niciu, "Sulfura de cadmiu- pigment galben" Conferinta de Chimie si Inginerie chimica, Bucuresti, 1997, p 525-529
6. H. Niciu, B.A. Sava, Daniela Niciu, Bezdadea Miruna, 'Metoda plasmachimica de obtinere din faza de vapori a sticlelor in sistemele binare SiO₂-Ln₂O₃ (Ln = lantanide), Conferinta de Chimie si Inginerie chimica, Bucuresti, 1997, p 86-91
7. B.A. Sava, H. Niciu, Daniela Niciu, Bezdadea Miruna "Relatii de corelare a proprietatilor optice cu compozitia chimica la sticlele binare din sistemul SiO₂-Ln₂O₃(Ln= lantanide) obtinute din faza de vapori prin metoda plasmachimica", Conferinta de Chimie si Inginerie chimica, Bucuresti, 1997, p 138-146
8. H.Niciu, B.A. Sava, Daniela Niciu, "Ceramic materials synthesis in high frequency field", 12th Romanian International Conference on Chemistry and Chemical Engineering Proceedings, RICCCE 12, 13-15 sept. 2001, Bucuresti, Romania, pp 134-138
9. Sava, H. Niciu, "Cadmium and zinc sulphide-selenides for optical filters and coloured glasses", 12th Roamanian International Conference on Chemistry and Chemical Engineering Proceedings, RICCCE 12, 13-15 sept. 2001, Bucuresti, Romania, pp 223-228
10. Simona Radicescu, Laura Ionescu, B. Grigoras, B. A. Sava, H. Niciu, Daniela Niciu, "Contributions to the Asn Sm glass synthesis", 2nd New Research trends in material science ARM-2, Constanta, 24-26 sept 2001, p 57-59
11. H. Niciu, B. A. Sava, Daniela Niciu, Laura Ionescu, Simona Radicescu, B. Grigoras, D. P. Nicolescu, "Synthesis method for bulk vitreous SiO₂ with optical properties", 2nd New Research trends in material science ARM-2, Constanta, 24-26 sept 2001, p 59-61
12. Simona Radicescu, Laura Ionescu, B. Grigoras, B. A. Sava, H. Niciu, Daniela Niciu, "Contributions to the Asn Sm glass synthesis", SECOND BALKAN CONFERENCE ON GLASS SCIENCE AND TECHNOLOGY, 14th Conference on Glass and Ceramics, Varna, Bulgaria, 24-28 sept 2002, p.11-16
13. H. Niciu, B. A. Sava, Daniela Niciu, Laura Ionescu, Simona Radicescu, B. Grigoras, D. P. Nicolescu, "Synthesis method for bulk vitreous SiO₂", SECOND BALKAN CONFERENCE ON GLASS SCIENCE AND TECHNOLOGY, 14th Conference on Glass and Ceramics, Varna, Bulgaria, 24-28 sept 2002, p.104-108
14. Daniela Niciu, H.Niciu, B.Grigoras, B.Sava, "Quartz glass research and development in Romania. Achievements and future", ARM 2003, Constanta, septembrie 2003, p 235
15. S. Craciun, E. Craciun, L. Druga, B. A. Sava, H. Niciu, B. Grigoras, Daniela Niciu, "Microwave sintering of Si₃N₄ silicon nitride products-2", ARM 2003, Constanta, septembrie 2003, p 346-348
16. B., A., Sava, "UTILIZAREA METODEI CROMATOGRAFIEI DE LICHIDE PENTRU STUDII FIZICO-CHIMICE ALE TRECERII SOL-GEL IN SISTEME VITROASE BINARE", A 9-a Conferinta de Stiinta si Ingineria Materialelor Oxidice, Consilox IX, Sighisoara, 8-10 septembrie 2004, p 122-126
17. B., A., Sava, "STUDIUL STICLELOR OBTINUTE PE CALE SOL-GEL PE BAZA SPECTROSCOPIEI IR", A 9-a Conferinta de Stiinta si Ingineria Materialelor Oxidice, Consilox IX, Sighisoara, 8-10 septembrie 2004, p 127-132
18. S., Craciun, E., Craciun, B., A., Sava, "NOI POSIBILITATI DE SINTEZA A NITRURII DE SILICIU SI DE SINTERIZARE A PRESATELOR PE BAZA DE NITRURA DE SILICIU", A 9-a Conferinta de Stiinta si Ingineria Materialelor Oxidice, Consilox IX, Sighisoara, 8-10 septembrie 2004, p 210-221
19. Sava Bogdan Alexandru, Plăiașu Zamfira, Târdei Christu, Stamatian Ioan, Năstase Claudia, Năstase Florin, „Ceramic composites, with superior thermo-mechanical properties, for dental technics applications 2nd

- part", The 14th Romanian International Conference on Chemistry and Chemical Engineering, september 22-24, 2005, Bucharest, Romania, Proceedings, vol 1, 12-20
20. Bogdan Alexandru Sava, Dinischiotu Anca, Anișoara Cîmpean, „Fluoro-silicate glasses for ionomeric cements”, The 14th Romanian International Conference on Chemistry and Chemical Engineering, september 22-24, 2005, Bucharest, Romania, Proceedings, vol 1, 276-284
 21. Nazarenco Igor, Jaklovzsky Jenő, Ghiordănescu Victor, Sava Bogdan Alexandru, Albeanu Ioana, Dumitrescu Mirela, Ulieru Dumitru, “The realization of the photoresistances A_2B_6 type by sintering-sublimation technics”, The 14th Romanian International Conference on Chemistry and Chemical Engineering, september 22-24, 2005, Bucharest, Romania, Proceedings, vol 1, 21-28
 22. Adriana Diaconu, B.A. Sava, Luminita-Daniela Ursu, Ileana Mitu, Elisabeta Rosu, D. Radu, O. Dumitrescu, M. Eftimie, "Preliminary study on the recycling of borate silicate vitreous waste with capitalization of heavy metals sludge", XXIst International Congress of Glass, ICG 2007, France, Strassbourg, 1-6 iulie 2007, CD Rom proc., U21.
 23. B.A. Sava, Adriana Diaconu, Luminita-Daniela Ursu, Lucica Boroica, M. Elisa, Cristiana Grigorescu, Cristina Vasiliu, I. Stamatin, F. Nastase, Claudia Nastase, Anca Dumitru, "Study on the obtaining and characterization of ecological silicate glasses", XXIst International Congress of Glass, ICG 2007, France, Strassbourg, 1-6 iulie 2007, prezentare orală, CD Rom proc., H6.
 24. M. Elisa, Cristiana Grigorescu, Cristina Vasiliu, B.A. Sava, Adriana Diaconu, Luminita-Daniela Ursu, Lucica Boroica, Zamfira Plaiasu, I. Stamatin, F. Nastase, Claudia Nastase, Anca Dumitru, "Preliminary study on obtaining and characterization of ecological silicate and phosphate glasses", XXIst International Congress of Glass, ICG 2007, France, Strassbourg, 1-6 iulie 2007, CD Rom proc., U25.
 25. B.A. Sava, T. Visan, Alina Balu, "Raman and ESR study of sol-gel materials from $ZnO-TiO_2-SiO_2$ system", XXIst International Congress of Glass, ICG 2007, France, Strassbourg, 1-6 iulie 2007, CD Rom proc., A27
 26. L. Boroica, D. Radu, I. Boroica, E. Rotiu, B. A. Sava, A. Diaconu, D. Ursu, R. Medianu, D. Hulsenberg, "Structure-properties correlation for borate glasses and glass ceramics", XXIst International Congress of Glass, ICG 2007, France, Strassbourg, 1-6 iulie 2007, CD Rom proc., A50.
 27. L. Boroica*, L. Ionescu, B. A. Sava, R. Medianu, O. Mocioiu and D. Hülseberg, "Differential thermal analyze for glass ceramics in which precipitated barium titanate and barium borate", ICSAM - 2007: International Conference on Structural Analysis of Advanced Materials, 2-6 September, 2007, Psathopyrgos-Patras, Greece, vol abs. p 238, CDROM conf. PS topic 9, 11.
 28. B.A. Sava, Adriana Diaconu, Luminita-Daniela Ursu, Lucica Boroica, M. Elisa, I. Stamatin, F. Nastase, Claudia Nastase, "Structure of ecological lead and fluorine free silicate glasses" ICSAM - 2007: International Conference on Structural Analysis of Advanced Materials, 2-6 September, 2007, Psathopyrgos-Patras, Greece, vol abs. p 190, CDROM conf. PS topic 2, 4.
 29. Adriana Diaconu, Luminita Daniela Ursu, Bogdan Alexandru Sava, Dorel Radu, Ileana Mitu, Elisabeta Rosu "Evaluation of reusing borosilicate glass cullet for manufacturing glass resistant to high temperature and pressure", CEEX Conference 2008, Brasov, 27-29.07.2008, publicat in "Excellence Research – a way to innovation", vol. II, pp 204.1-204.6., Editura Tehnica, Brasov, 2008, ISSN 1844-7090.
 30. S. Peretz, M. Elisa, B. Sava, Gh. Zgherea, C. Stoian, "Synthesis of CdS Nanocrystals Coated with some Polymers", , Proceedings of the 9th Symposium of Colloid and Surface Chemistry-Galati, 28-30 May (Romania), 2008, pp. 32-35, ISSN 2065-3603.
 31. Lucica Boroica, Bogdan Alexandru Sava, Mihai Sava, Rotiu Emil, Rares Medianu, Ileana Cristina Vasiliu, Sanziana Ioana Boroica, "Study of glass matrix with controlled released", 4th Balkan Conference on Glass science and technology, 16th Conference on Glass and Ceramics, Varna, Bulgaria, 27.09-01.10.2008, Proceedings book, p. 314, ISBN 978-954-629-037-3, Expertprint Ltd.
 32. M. Elisa, B. A. Sava, I. Stamatin, A. Andronie, S. Peretz, "Thermo-Gravimetric Analysis of Ecological Aluminophosphate Glass", Proceedings of the 11th International Conference and Exhibition of the European Ceramic Society, 11th ECERS Conference, Krakow, Poland, 21-25.06.2009, pp.754-758, ISBN 978-83-60958-54-4
 33. B. A. Sava, M. Elisa, L. Boroica, R. Monteiro, "Thermal properties of samarium and europium-doped phosphate glasses", 18th International Symposium on Non-Oxide and New Optical Glasses ISNOG, St Malo, FRANCE, July 1-5, 2012, Abstract book, p. 252.

34. Mihai Elisa, Bogdan Alexandru Sava, Ileana Cristina Vasiliu, Regina Monteiro, Luminita Ghervase, Ionut Feraru, Claudiu Tanaselia, M. Senila, B. Abraham, "Optical and structural characterization of samarium and europium-doped phosphate glasses", 11th European Society of Glass Conference, Maastricht, Netherlands, June, 2012, Abstract book, p. 222-223.
35. Lucica Boroica, B. A. Sava, M. Sava, M. Elisa, "Structure and properties of phosphate glasses containing Mo, B, V and Fe", 6th International Conference on Materials Science and Condensed Matter Physics, MSCMP, Chisinau, Republica Moldova, 2012, lucrare MSP (Materials and Structure Processing), prezentare orală, Conference book, p. 71, ISBN 978-9975-66-290-1.
36. D. Grabco, O. Shikimaka, M. Elisa, B. Sava, L. Boroica, E. Harea, C. Pyrtsac, A. Prisacaru, Z. Danitsa, I. Feraru, D. Ursu, "Surface morphology and strength behavior of vitreous films doped by neodymium", 6th International Conference on Materials Science and Condensed Matter Physics, MSCMP, Chisinau, 11-14 septembrie 2012, Conference book, p. 134, ISBN 978-9975-66-290-1.
37. B. A. Sava, L. Boroica, M. Elisa, "Synthesis of rare-earth-doped phosphate glasses with improved optical properties", 11th Conference on the science and engineering of oxide materials CONSILOX 2012, Bucuresti, 10-13 octombrie 2012, Abstract book, pp. 19-20, ISSN 2285-6145.
38. Mihai Elisa, Bogdan Alexandru Sava, Ileana Cristina Vasiliu, R. C. C. Monteiro, Luminita Ghervase, Ionut Feraru, Claudiu Tanaselia, M. Senila, B. Abraham, "Investigations on thermal, optical and structural properties of phosphate glasses containing terbium ions", 2nd International Conference on Competitive Materials and Technology Processes – IC-CMPT2, Miskolc – Lillafured, Hungary, October 8-12, 2012, Book of Abstracts, p.75, ISBN: 978-963-08-4874-9.
39. B. A. Sava, L. Boroica, M. Elisa, A., Beldiceanu, R. Iordanescu, I. Feraru, R. Medianu, "Optical Phosphate Glasses Doped with Rare-Earth Ions. Obtaining, Structure and Properties", "23rd International Congress on Glass", Praga, Cehia, 30.06.2013-06.07.2013, Congress Abstract Book, Abstract 194, pag.269.
40. R. C. C. Monteiro, R. S. Soares, A. A. S. Lopes, M. M. Lima, M. Elisa, B. A. Sava, "Crystallization behaviour of europium-doped aluminophosphate glasses", "23rd International Congress on Glass", Praga, Cehia, 30.06.2013-06.07.2013, Congress Abstract Book, Abstract 102, pag. 260.
41. A. Volceanov, V. Dima, M. Eftimie, S. Stoleriu, M. Elisa, B. A. Sava, L. Boroica, "Phosphate-based Glasses for Magneto-Optical Applications", "23rd International Congress on Glass", Praga, Cehia, 30.06.2013-06.07.2013, Congress Abstract Book, Abstract 349, pag. 285
42. Sava B. A., Elisa M., Bartha C., Iordanescu R., Feraru I., "Complex investigations of europium - doped phosphate glasses crystallization mechanism", "12th international conference on the STRUCTURE OF NON CRYSTALLINE MATERIALS, NCM 12", Riva del Garda, Italia, 07-12 iulie 2013, Conference Abstract Book, p. 38.
43. Iordanescu R., Feraru I., Elisa M., Sava B., Boroica L., Valeanu M., Kuncser V., Sofronie M, ".Magnetic and magneto-optical properties of La, Y and Eu-doped phosphate glasses", The 8th International Conference on Borate Glasses, Crystals and Melts "Borate Phosphate 2014", Pardubice, Czech Republic, Published by ICARIS Ltd., p. 206
44. Sava B.A., Boroica L., Elisa M., Medianu R. V., Monteiro R.C.C "Boro-phosphate glasses doped with d and f oxides for photonics, preparation and characterization", The 18th International Conference on borate glasses, Crystals and Melts & The International Conference on Phosphate Glasses, Pardubice, Cehia, 30.06 – 04.07.2014, Abstract Book, Published by ICARIS Ltd., p. 219
45. L. Boroica*, B. A. Sava, M. Elisa, M. Valeanu, V. Kuncser, M. Sofronie, O. Shikimaka, D. Grabco "Magneto-optical and mechanical properties of rare-earth doped phosphate glasses", The 7th International Conference on Materials Science and Condensed Matter Physics - MSCMP, 16-19 sept 2014, Vadu lui Voda, Chisinau, Republica Moldova, Abstract Book, p 88, lucrare in plen
46. B. A. Sava*, L. Boroica, M. Elisa, G. Socol, A. Andrei, A.M. Niculescu, O. Shikimaka, D. Grabco, „Doped boro-phosphate vitreous materials as PLD thin films, obtaining and properties”, The 7th International Conference on Materials Science and Condensed Matter Physics - MSCMP”, 16-19 sept 2014, Vadu lui Voda, Chisinau, Republica Moldova, Abstract Book, p 135, lucrare in plen
47. O. Shikimaka, D. Grabco, B.A. Sava, M. Elisa, L. Boroica, E. Harea, C. Pyrtsac, A. Prisacaru, D. Spoiala, "Micro and macro mechanical proeprties of alumino-phosphate glasses depending on the composition and loading conditions", The 7th International Conference on Materials Science and Condensed Matter

- Physics - MSCMP", 16-19 sept 2014, Vadu lui Voda, Chisinau, Republica Moldova, Abstract Book, p 131, lucrare in plen
48. Sava B.A., Iordanescu R., Feraru I., Elisa M., Vasiliu I., Boroica L., Bartha C., Plapcianu C., Palade. P., Valeanu M., Kuncser V., Volceanov A., Stoleriu S., „Optical, thermal and structural properties of iron-doped phosphate glasses”, 12th ESG Conference, Parma, Italia, 21.09.2014-25.09.2014, Conference Abstract book, p. 205
 49. B. A. Sava, “Phosphate and borate-phosphate glasses. Obtaining, properties and some applications”, The Sixth Balkan Conference on Glass Science & Technology, The 18th Conference on glass and ceramics, 01. – 04.10.2014, Nessebar, Bulgaria, Abstract Book, p 22-23, Invited paper.
 50. Lucica Boroica, B. A. Sava*, M. Elisa, V. Kuncser R. Iordanescu, I. Feraru, M. Eftimie’ “Structure and properties of doped boro-phosphate glasses for magneto- optical devices”, The Sixth Balkan Conference on Glass Science & Technology, The 18th Conference on glass and ceramics, 01. – 04.10.2014, Nessebar, Bulgaria, Abstract Book, p. 25-26, Invited paper
 51. B. A. Sava, O. Shikimaka, D. Grabco, M. Elisa, L. Boroica, E. Harea, C Pyrtsac, “Thermally induced indentation recovery in terbium doped alumino-phosphate glasses”, 3rd International Conference on Competitive Materials and Technology Processes, Miskolc-Lillafured, Hungary, 06-10 oct 2014, Abstract Book, ISBN 978-963-12-0334-9, p 96
 52. B. A. Sava, M. Elisa, L. Boroica, O. Shikimaka, D. Grabco, V. Kuncser, R. Medianu, “Rare-earth doped phosphate glasses for magneto-optical devices”, 3rd International Conference on Competitive Materials and Technology Processes, Miskolc-Lillafured, Hungary, 06-10 oct 2014, Abstract Book, ISBN 978-963-12-0334-9, p 97
 53. Andreia Lopes, M. M. R. A. Lima, J. P. Veiga, B. Sava, L. Boroica, M Elisa, D. Ulieru, R. C. C. Monteiro, “Thermal characteristics of co-doped borophosphate glass”, Materials 2015 International Conference, 21-23.06.2015, Porto, Portugal, B15-99 in Conference Programm
 54. M. Sofronie, A. Catalin Galca, F.Tolea, V. Kuncser, M. Valeanu, M. Elisa, C. R. Iordanescu, I. D. Feraru, B. A. Sava, L. Boroica, “Magneto-optical and magnetic properties of doped aluminophosphate glasses”, 20th International Conference on Magnetism, july, 5-10, 2015, Barcelona, Spain, Final Programme, Poster Th.O-P19, pag. 373
 55. Boroica L., Sava B. A., Medianu V.R., Elisa M., Filipescu M., Monteiro R., Iordanescu R., Feraru I., Shikimaka O., Grabco D., “Thin films obtained by magnetron sputtering from boro- phosphate glasses doped with Dy and Tb”, ROMOPTO 2015, 1-4 sept. 2015, Bucharest, Romania, II.P.7. pag 55 in Conference book of abstracts
 56. Sava B. A., Boroica L., Elisa M., O. Shikimaka, D. Grabco, G. Socol, Regina C C Monteiro, V. Kuncser, R. Iordanescu, I. Feraru, R. Medianu, “ Obtaining and characterization of doped boro-posphate nanomaterials for photonics”, ROMOPTO 2015, 1-4 sept. 2015, Bucharest, Romania, III.P.3. pag 59 in Conference book of abstracts
 57. B.A. Sava, L. Boroica, M. Elisa, R.C.C. Monteiro, O. Shikimaka, D. Grabco, R. Iordanescu, I. Feraru, „Sol- gel obtaining of powders and thin films from doped boro-phosphate systems”, International Conference “Sol-Gel 2015”, Kyoto, Japonia, 6.09.2015-11.09.2015, P-Th-10-04 in Electronic Conference Book of Abstracts
 58. Sava B. A., Boroica L., Elisa M., Socol G., Stefan N. , Andrei A., Filipescu M., Monteiro R., Iordanescu R., Feraru I., Shikimaka O., Grabco D., “PLD Thin Films Obtained From Dy₂O₃ And Tb₂O₃ Co-doped Boro-Phosphate Glasses”, Conferinta Internationala “ International Comission on Glass \ 2015”, Bangkok, Thailanda, 20.09.-23.09.2015, Abstract Book, p. 208
 59. B. A. Sava, M. Elisa, L. Boroica, R. Medianu, R. C. C. Monteiro, V. Kuncser, M. Valeanu, R. Iordanescu, I. D. Feraru, “Bismuth and lead oxide co-doped borophosphate thin films obtained by RF magnetron sputtering, for magneto-optical applications”, 23rd International Conference on Materials and Technology, 27–30.09.2015, Bernardin, Portoroz, Slovenija, Program and Book of abstracts, Poster Session – P19, pag.25, Abstract pag. 86
 60. D. Grabco, O. Shikimaka, M. Elisa, B. Sava, L. Boroica, E. Harea, C. Pyrtsac, A. Prisacaru, I. Feraru, R. Iordanescu, Z. Barbos, Ia. Vreme, “ Effect of spin coating technique on mechanical properties of silicophosphate thin films doped by neodymium “ 3rd International Conference on Nanotechnologies and Biomedical Engineerings, Chisinau, 23-25 sept. 2015, Moldova, Abstract Book, p. 71

61. Regina C. C. Monteiro, Andreia A. S. Lopes, Maria M. R. A. Lima, João P. B. Veiga, Bogdan Sava, Lucica Boroica, Mihail Elisa, Dumitru Ulieru, "Influence of CoO addition on the crystallization of a borophosphate based glass", 11th International Symposium on Crystallization in Glasses and Liquids, October, 11-14, Nagaoka, Japan

ANNEX 4 Main Achievements

26 national research projects implemented, as leader or manager, 13 in last 10 years, among whom:

- Researches for vitreous potassium-phosphate fertilizants obtaining, having controled solubility and establishment of using parameters in plants production, 52-139 PNII.
- Advanced phosphate materials with vitreous structure, doped with rare-earth, for electronic use, 71-054 PNII;
- Laser technologies to achieve "in situ" bioactive glass ceramic coatings for orthopedic prostheses, PN II 71-138/2007;
- Promotion of clean energetic technologies in technical and ware glass, in durable development context, 21-020 PNII;
- Intelligent design flexible photovoltaic conversion with embedded efficiency of photo-electric maximized, PN II 21-021/ 2007;
- Increasing the visibility of scientific research in the field of vitreous / ceramic nanostructured to participate in FP7 EU, CEEEX 103;
- Ecological glasses, obtained by nano-technologies, for attenuation, restoration and adaptation of natural environment factors, 635 CEEEX;
- Ceramic composites with superior thermo-mechanical properties, for dental purposes, 194 MATNANTECH;
- Diversing the electronic compounds production by opto-electronic comutators implementation, 117 INVENT;
- High durity ceramics, based on synthesized and sintered nitrides in microwave field, 21 MATNANTECH;
- Researches on nano-structured thin films obtaining, with optical properties, from organo-metalics and organic monomers, by co-polymerization, RELANSIN frame;
- Low costs fabrication technique of zinc and cadmium sulphide and sulpho-selenides for colors of yellow-orange-red kind, in glass industry, RELANSIN frame;
- Researches on thin films obtaining from organo-metalic compounds, ORIZONT 2002 frame;
- Translucide alumina components, of high purity, for natrium vapors lamps; ORIZONT 2000 frame;
- Advanced ceramics with controled structure and purity, with high resistivity at high working temperatures. ORIZONT 2000 frame;
- Theoretical models applied to vitreous structure obtained by unconventional methods, ORIZONT 2000 frame;
- Fundamental researches for the approach of new optical glass obtaining;
- Chemical methods used for new optical glasses obtaining;
- New optical glasses based on unconventional methods;
- Chemical equilibrium study, in ternary silicates solutions, by cromatographic methods;

Achievement of around 30 new technologies for special materials, 17 in last 10 years:

- Technologies for vitreous potassium-phosphate fertilizants obtaining, for autumn and spring plants, and for grape vine.

- 2 technologies for obtaining advanced phosphate powders and thin films with vitreous structure, doped with rare-earth, for electronic use;
- Technologies for durable capitalization in vitreous materials of boro-silicate glass wastes and precipitation slugs with high content in heavy metals, of 3 new types;
- Technologies for silicate and phosphate ecological glasses obtaining, of 4 new types;
- Technologies for ceramic composites with superior thermo-mechanical properties, for dental purposes obtaining, of 4 new types;
- Technology for the obtaining of high purity cadmium sulphide selenide for opto-electronic actuators;
- Technology for sintered nitrides in microwave field obtaining;
- Technology for nano-structured thin films with optical properties obtaining;
- Technology for low costs fabrication of zinc and cadmium sulphide and sulpho-selenides for colors of yellow-orange-red kind;
- Technology for high purity arsenium tri-sulphide Sn-doped obtaining;
- Technology for translucide alumina components obtaining;
- Technology for plasma quartz glass obtaining;
- Technology for silicone halides obtaining;
- Technology for colloidal silica sols obtaining;
- Technology for refractory stirrers for glass homogenization, of 600 mm throw, obtaining;
- 7 technologies for refractory pots for glass melting, of 200 L, 60L, 20L, 1,25L, 0,5L, 0,125L, 0,025L capacity obtaining;
- Coprecipitation and sol-gel technologies for doped sodium and potassium silicate obtaining;
- 2 technologies for optical R6 and OS17 type glass filter obtaining;
- 5 technologies for optical SF1, SF10, SF11, TF 108, TF 110 type glass obtaining;

Technical competences in next domains, research and development:

- Optical glasses and optical glass filters;
- Glasses for optoelectronics, non-linear optics and electronics;
- Obtaining of nanomaterials;
- High purity materials;
- Nano structured materials;
- Plasma-chemistry and microwave heating for ceramic materials obtaining;
- New methods for glass and ceramics preparation: sol-gel, coprecipitation, plasma chemical, microwave, pulse laser deposition, RF magnetron sputtering methods;
- Quartz glasses and doped quartz glasses;
- Ecological glasses, Vitreous fertilizers for plants;
- Bio-vitro-materials;
- High purity materials;
- Colored, opal and technical glasses;

- Glass-ceramics;
- High alumina and silica products;
- Refractories for glass industry, plastics industry, non-ferrous materials and laboratory use;
- High refractories and high durability materials;
- Ceramic composites;
- Inorganic colorants for glass and plastics.

International Cooperation:

Project manager of:

M-ERA NET no. 7-081/2013, MAGPHOGLAS/ New doped boro-phosphate vitreous materials, as nano-powders and nano-structured thin films, with high optical and magnetic properties, for photonics, 2013-2016

Participant as senior researcher in:

- MNT ERA NET no. 7-031/04.04.2011, SENSGLOSS/ Innovative optical micro sensors based on rare-earth doped phosphate glass, 2011-2014;
- Romanian-Moldavian bilateral research project 695/2013, between INOE 2000 and Applied physics Institute of the Academy of Science of Moldavia, 2013-2014;
- Romanian-Moldavian bilateral research project, 428/15.06.2010, between INOE 2000 and Applied physics Institute of the Academy of Science of Moldavia, 2010-2012;
- EC Program TEMPUS, 1991-1993;
- Leonardo da Vinci/ Virtual Glass Academy (FP5), 2001-2005.

Reviewer for:

J of Sol-Gel Science and Technology;

J of Non Cryst Solids;

Physics and Chemistry of Glasses;

Physica B;

Physica Status Solidi A;

Current Applied Physics;

J. Molecular Structure;

J. of Materials Science;

Physical Sciences Research International;

JOAM;

OAM-RC