

Curriculum vitae

Europass

Personal information

Name: Corneliu Sergiu Stan

Street Prof. dr. docent Dimitrie Mangeron, no. 73, 700050, Iași, Romania

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Webpage: https://www.researchgate.net/profile/Corneliu_Stancs/?ev=prf_highl

Birth date 29.12.1964 | **Nationality** : romanian

Professional experience

Period Jan.2012 - onwards

Function Scientific Researcher

Research project Innovative electroluminescent nanocomposites for a new approach in polymer based light emitting devices
PN-II-ID-PCE-2011-3-0708 / 335/5.10.2011

Website: http://www.ch.tuiasi.ro/cercetare/IDEI/mpopa/pled/web_proiect_idei_337_013.htm

Activities and responsibilities Main scientific investigator within the research objectives; laboratory research activity; experimental planning; experimental setups; FT-IR, elemental analysis, thermal analysis, SEM, EDX, fluorescence spectroscopy etc investigations of the new compounds and materials; data processing and interpretation, scientific papers and patent requests elaboration, project web-page design, new equipments and materials acquisition.

Name of the employer Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania

Sector of the activity Research

Period Oct. 2009 – Dec. 2012

Function Scientific Researcher

Research project New Type Of Nanocomposite Materials With Applications In Electronics And Electrochemical Sensors
PNII-PCE-IDEI 357 / 721/2009

Website: <http://www.ch.tuiasi.ro/cercetare/PNCIDI/dsibiescu/IDEAS/index.htm>

Activities and responsibilities Main scientific investigator within the research objectives related to nanocomposite materials with application in electronics; laboratory research activity; experimental planning; experimental setups; FT-IR, elemental analysis, thermal analysis, SEM, EDX, fluorescence spectroscopy investigations of the new compounds and materials; data processing and interpretation, scientific papers and patent requests elaboration.

Name of the employer Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania

Sector of the activity Research

Period Feb. 2007 – Sept. 2009

Function Research programs manager

Activities and responsibilities Research projects management

Name of the employer Gheorghe Asachi Technical University of Iasi

Sector of the activity Education, management, training and scientific research

Period Feb. 2004 – Jan. 2007 (also June 1997 – Feb. 2002)

Function Production Manager

Activities and responsibilities Injection molding and thermoforming production plant management, quality assurance, new product development, technical studies and plans for production extension and custom design products.

Name of the employer SIBEL Ltd. Iasi

Sector of the activity Management, Production plastics

Period March 2002 – Jan. 2004
Function Counselor A.1.3.
Activities and responsibilities Pollution monitoring in Iasi city, pollution monitoring, laboratory and field monitoring equipments set-up and maintenance, database maintenance.
Name of the employer Environmental Protection Agency Iasi
Sector of the activity Government, environmental protection

Period March.1990 – Nov. 1996
Function Research assistant, Scientific Researcher
Activities and responsibilities Research, research programs and grants management, scientific reports, scientific publications and reviews, experimental setups, technology transfer and implementation.
Name of the employer Research Institute ICIT-FIBRESIN Iasi
Sector of the activity Scientific Research

Education

Period Oct. 2009 – Sept. 2012
Qualification/diploma Doctor in chemistry
Doctoral thesis New lanthanide complexes with organic ligands
Funding EURODOC project (European and national co-funding project)
Name of institution Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania

Period Sept. 1984 – July.1989
Qualification/diploma Eng. Diploma nb.
Disciplines approach/competence Chemistry, organic chemistry, polymers
Name of institution Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania, Fully funded study scholarship

Research stages abroad

Period 01.Nov.2011 – 30.Apr.2012
Name of institution Ecole Nationale Supérieure de Chimie / Institut de Chimie Moléculaire et des Matériaux Charles Gerhardt Montpellier, France.

Aptitude and professional competence

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C1	C1
French	C1	C1	A2	A2	B1
German	A1	A2	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user, Common European Reference for Languages

Management abilities Research project manager 300B/1993-1995 (see below „Scientific activity”), Production plant manager (1997-2002, 2004-2007).

Competence and organizing aptitudes Able to plan, organize, and handle a heavy workload. Work well independently or in a team. Self-educated regarding the research, publishing activity, national and international collaborations.

Computer skills	- MS Office, Corel Suite, Electronic Workbench, PCB Express, ChemBioOffice, Origin, FL-WinLab, Panalytical Expert High Score Plus., X-Powder, Infometrix Bio-Rad, Horiba Fluorescence etc. - Web page design software. - Advanced hardware setup and configuration.
Job-related skills	- Various investigation techniques including FT-IR, P-XRD, Thermal Analysis, Scanning electron microscopy, Fluorescence spectroscopy, UV-VIS spectroscopy etc. - Experienced in laboratory related equipments and experimental activities.
Other skills	Very good background in electronics (circuit design, experimental projects, testing, automation, various equipments repair and maintenance), optoelectronics (including various types of light sources, solar cells, lasers, various types of alphanumeric, graphic and flat panel color displays etc).
Driving license	B category license

Proofs and recommendations could be provided by:

- Prof.dr. eng. dr.h.c. Marcel Popa, Natural and Synthetic Polymers Dept., Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania. Email: marpopa@ch.tuiasi.ro or marpopa2001@yahoo.fr
- Prof.dr. eng. Dan Cascaval, Dean, Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania. Email: dancasca@ch.tuiasi.ro
- Prof.dr. eng. Ionel M. Popa, Chem. Engineering Dept., Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Romania. Email: mipopa@ch.tuiasi.ro
- Prof. dr. Vasile Hulea, Ecole Nationale Supérieure de Chimie / Institut de Chimie Moléculaire et des Matériaux Charles Gerhardt Montpellier, France; Email: vasile.hulea@enscm.fr
- Maître de conf. dr. Nathalie Marcotte, Ecole Nationale Supérieure de Chimie / Institut de Chimie Moléculaire et des Matériaux Charles Gerhardt Montpellier, France; Email: nathalie.marcotte@enscm.fr

Scientific activity

Published/accepted ISI papers

1. **C. S. Stan**, M. Popa, D. Sutiman, P. Horlescu, Photoluminescent red green and blue monoliths of new Eu(III), Tb(III) and Y(III) complexes embedded in silica matrix, Springer-Electronic Materials Letters 10(4), pp. 827-835, doi: 10.1007/s13391-014-3240-5, 2014.
2. **C. S. Stan**, M. Popa, N. Marcotte, Photoluminescent polymer composites based on new Tb(III) and Eu(III) – Maleimide complexes, Springer- J. of Inorganic and Organometallic Polymers and Materials 24(4), pp. 676-683, DOI: 10.1007/s10904-014-0044-x, 2014.
3. L. Zaleschi., M. S. Secula, C. Teodosiu, **C. S. Stan**, I. Cretescu, Removal of Rhodamine 6G from Aqueous Effluents by Electrocoagulation in a Batch Reactor: Assessment of Operational Parameters and Process Mechanism, Water, Air, & Soil Pollution 225(9), pp. 827-835, doi: 10.1007/s11270-014-2101-z, 2014.
4. M.S. Secula, **C.S. Stan**, C. Cojocaru, B. Cagnon, I. Cretescu, Multi-Objective Optimization of Indigo Carmine Removal by an Electrocoagulation/GAC Coupling Process in a Batch Reactor, Separation Science and Technology 49: pp. 924–938, DOI: 10.1080/01496395.2013.871292, 2014.
5. **C. S. Stan**, M. Popa, M. Olariu, M. S. Secula, Synthesis and characterization of a PSSA-Polyaniline composite with enhanced processability in thin films, Springer- Central European Journal of Chemistry, accept 17.12.2013.
6. **C. S. Stan**, N. Marcotte, M. Popa, M. Secula, Photoluminescent silica aerogel containing a new prepared N-Hydroxysuccinimide –Tb(III) complex, Springer-J. of Sol-Gel Science and Technology, 69, pp. 207–213, doi: 10.1007/s10971-013-3205-4, 2014.
7. **C. S. Stan**, M. Popa, M.S. Secula, Luminescent xerogels obtained through embedding Tb(III) and Eu(III) complexes in silica matrix, Elsevier- J. of Optical Materials, Volume 35(9), pp.1741–1747, doi: 10.1016/j.optmat.2013.05.025, 2013.

8. M. S. Secula, L. Zaleschi, **C. S. Stan**, I. Mămăligă, Effects of electric current type and electrode configuration on the removal of Indigo Carmine from aqueous solutions by electrocoagulation in a batch reactor, *Desalination and Water Treatment*, doi: 10.1080/19443994.2013.811116, in press, 2013.
9. M. S. Secula, I. Cretescu, B. Cagnon, L. R. Manea, **C. S. Stan**, I. G. Breaban, Fractional Factorial Design Study on the Performance of GAC-Enhanced Electrocoagulation Process Involved in Color Removal from Dye Solutions, *Materials*, 6(7), pp.2723-2746, published online July 2013.
10. **C. S. Stan**, I. Rosca, D. Sutiman, M.S. Secula, Highly luminescent europium and terbium complexes based on succinimide and n-hydroxysuccinimide, *Elsevier-J. of Rare Earths*, 30 (5), pp.401-407, 2012.
11. **C. S. Stan**, M.S. Secula, D. Sibiescu, Highly luminescent polystyrene embedded CdSe quantum dots obtained through a modified colloidal synthesis route, *Springer- Electronic Materials Lett.* 8 (3), pp. 275-281, 2012.
12. **C. S. Stan**, D. Sibiescu, I. Cretescu, Solar Energy Powered Phosphorescent Composites for Utilitarian and Emergency Lighting, *J. of Environmental Protection and Ecology* (13) 2, pp. 666-674, 2012.
13. M. D. Tutulea, I. Cretescu, D. Sibiescu, **C. S. Stan**, Electrochemical Sensors for Heavy Metal Ions Detection from Aqueous Solutions, *Environmental Engineering and Management J.* (11) 2, pp. 463-470, 2012.
14. **C. S. Stan**, D. Sibiescu, I. Cretescu, C.Y. Rosca, D. Sutiman, M.D. Tutulea, I. Rosca, New Gd(III) complexes based on Succinimide, N- hydroxysuccinimide and N- hydroxyphthalimide with possible applications in optoelectronics and medical imaging, *J. of Optoelectronics and Advanced Materials*, 5 (9), pp. 994-998, 2011
15. **C. S. Stan**, D. Sibiescu, M.S. Secula, I. Rosca, I. Cretescu, Phosphorescent Composites Based on Polyethyleneterephthalate, *Materiale Plastice*, 47(3), pp. 324-327, 2010.

ISI papers submitted (under review)

1. **C.S. Stan**, C. Albu, A. Coroaba, M. Popa, D. Sutiman, One step synthesis of fluorescent Carbon Dots through pyrolysis of N-hydroxysuccinimide, *Journal of Materials Chemistry C*, submitted 09.2014.
2. **C. S. Stan**, C. Peptu, M. Popa, D. Sutiman, P. Horlescu, Novel Y³⁺, Sm³⁺, Eu³⁺, Gd³⁺ and Tb³⁺ complexes with 2-(1H-1,2,4-Triazol-3-yl)pyridine and their remarkable photoluminescent properties, *Elsevier- J. of Optical Materials*, submitted 08. 2014.

Published/accepted papers in indexed journals

1. **C. S. Stan**, M. Popa, C. A. Peptu, Luminescent hydrogel composites based on Y(III), Eu(III) and Tb(III) complexes, *ASP- J. of Hydrogels*, accepted 10. 2013, in press.
2. **C. S. Stan**, M.S. Secula, M. Popa, Synthesis Methods Of II-VI Quantum Dots, *Bull. I.P.Iasi, Chem. and Chem. Eng. section*, Vol.3, LIX(LXIII), , ISSN 0254-7104, 2013.
3. D. Sibiescu, M.D. Tutulea, C. Mita, **C. S. Stan**, I. Rosca, M. Vizitiu, The study of New Complex Compounds of Ni (II) and Co (II) with N- hydroxysuccinimide and their potential applications as sensors, *Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies (SPIE)*, Vol. 7821 78210M-1, ISSN0277-786X, doi: 10.1117/12.882909, 2010.
4. **C. S. Stan**, M. S. Secula, M. D. Tutulea, D. Sibiescu, I. Rosca, I. Cretescu, Core-shell phosphorescent composites applied in optoelectronics, *Bull. I.P.Iasi, Section Mathematics and Physics*, Tom LV(LIX) (2), pp.117-124, ISSN 0304-5188, 2009.
5. **C. S. Stan**, M. S. Secula, D. Sibiescu, I. Cretescu, I. Rosca, Quantum CdSe nanocrystals emitting in the green area of VIS spectrum for optical applications, *Annals Of "Dunarea De Jos" University Of Galati Mathematics, Physics, Theoretical Mechanics Fascicle II, Year I (XXXII)*, 32(2), pp. 22-25, ISSN 1221-4531, 2009.

Patents, registered patent requests

1. **C. S. Stan**, M. Popa, Fluorescent hydrogel composite based on sodium polyacrylate and glycerol; A/00657/ 05.09.2013.
2. **C. S. Stan**, I. Cretescu, D. Sibiescu, M.S.Secula, Method of obtaining a fluorescent composite based on polyethyleneterephthalate and cadmium selenide nanocrystals; A/0097/ 2011-10-05.

3. **C. S. Stan**, D. Sibiescu, I. Rosca, I. Cretescu, Process for preparing fluorescent cadmium selenide nanocrystals to be employed in optoelectronics; RO127186-A2.
4. **C. S. Stan**, D. Sibiescu, I. Rosca, I. Cretescu, D. M. Tutulea, Phosphorescent composites to be employed in highly efficient lighting sources; RO126406-A2; RO126406-B1.
5. D. Sibiescu, L. Chirila, I. Rosca, R. Butnaru, M. Vizitiu, **C. S. Stan**, Violet coloured coordination compounds of Fe(III) and a process for their preparation; RO126207-A2.

Book

1. D. Sibiescu, **C. S. Stan**, I. Cretescu, I. Rosca, Lanthanides and Applications, Ed. Performantica, ISBN: 978-973-730-750-7, 2010.

Communicated papers

1. **C. S. Stan**, M. Popa, Composites photoluminescents de type hydrogel a base de complexes de lanthanides et de quantum dots de graphène, XI^{ème} Colloque Franco-Roumain sur le Polymères, Pitesti, Roumanie 27-29 août 2014.
2. P. Horlescu, D. Sutiman, C. Mita, C. Peptu, **C. S. Stan**, Structural, spectral and magnetic properties of Co(II), Rh(III) and Cd(II) complexes with 2-(1H-1,2,4-triazol-3-yl) pyridine, Zilele Universității "Alexandru Ioan Cuza" din Iași 31 oct.- 02. nov. 2013.
3. V. Musat, M. Popa, **C. S. Stan**, The influence of cadmium chloride over the morphology and properties of polyaniline obtained through a direct synthesis path, Third International Symposium Frontiers in Polymer Science, Sitges, Spain 21-23 May 2013.
4. **C. S. Stan**, M. Popa, N. Marcotte, Photoluminescent Silica Aerogel Containing New Developed Lanthanide Complexes, Third International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy 3-7 March 2013.
5. **C. S. Stan**, C. A. Peptu, I. Rosca, V. Musat, M. Popa, Highly Luminescent Europium (III) complexes based on succinimide and maleimide, 12th Eurasia Conference on Chemical Sciences, Corfu, Greece, 16-21 Apr. 2012.
6. V. Musat, M. Popa, **C. S. Stan**, Preliminary studies concerning polyaniline embedded lanthanide complexes as emissive layers for electroluminescent devices, 12th Eurasia Conference on Chemical Sciences, Corfu, Greece, 16-21 Apr. 2012.

Awards

- Bronze medal at Xth Moscow International Salon of Innovations and Investments 07-10 September 2010 for Phosphorescent compounds for high efficiency light sources.
- Silver medal at Inventika 2010 under authority of National Scientific Research Agency; 6-9 Oct. 2010, Bucharest, Romania for High Efficiency Synthesis Method of Fluorescent Cadmium Selenide Quantum Dots.

Research stages

01.11.2011 – 30.04.2012. Ecole Nationale Supérieure de Chimie / Institut de Chimie Moléculaire et des Matériaux Charles Gerhardt Montpellier, France; under supervision of Maître de conférences Nathalie Marcotte.

PhD Thesis

2009-2012 under EURODOC project (european and national co-funding project)

Title: New lanthanide complexes with organic ligands

Supervisor: prof. dr. eng. Ioan Rosca

Research Grants

Research team member:

1. [CNCS- IDEI 335/5.10.2011](#) - ongoing, Innovative electroluminescent nanocomposites for a new approach in polymer based light emitting devices; (three years, ~300000 euro, funding from National Research Council).
2. [CNCS IDEI 721/2009-2012](#), New Type of Nanocomposite Materials with Applications in Electronics and Electrochemical Sensors; (three years, ~210000 euro funding from National Research Council).

3. FIBRESIN 578B/1994-1996, Development and processing of some new polymers for food packaging.
4. FIBRESIN FA11/1991-1993, Liquid crystal polyesters; (funding from industry).
5. FIBRESIN A12/1990-1992, Development of some modified polyesters with dicarboxylic acids and various diols; (funding from industry).

Research team leader:

1. 300B/1993-1995, Metal deposition on inorganic and organic substrates using a scanning, in vacuum, focused ionic beam technique; (funding from industry).

Research interest areas

Luminescent materials and compounds, Electroluminescence, Graphene and carbon related materials incl. GQD and C-Dots, OLED's, PLED's, Light emitting capacitors (LEC's), Conductive polymers, Organometallic compounds, Lanthanide and transition metals complexes, Semiconductor Quantum Dots, Organic nanoparticles, Aerogels.

2014

Corneliu S. Stan

