



LISA GABRIELA – financial manager of the CO team

Contribution in project: applications of neural networks and genetic algorithms to processes from chemical engineering field, financial manager.

1. Personal information

Name and surname: LISA Gabriela (born Apreotesei)

Date and place of birth: August, 27th, 1969, Moinesti-Bacau, Romania

Present academic position: Associate Professor

Current address: Department of Chemical Engineering, Faculty of Chemical Engineering and Environmental Protection, "Gh. Asachi" Technical University of Iasi, 73, Dimitrie Mangeron Blvd., 700050-Iasi, Romania.

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2. Education

1996-2000 PhD Diploma, Thesis: "Studies in liquid-liquid extraction" thesis supervisor Prof. dr. doc. eng. Radu Z. Tudose, Member of Romanian Academy.

1995–1996 Postgraduate Diploma in Chemical Engineering, Faculty of Industrial Chemistry, Technical University "Gheorghe Asachi" Iasi.

1990–1995 License in Chemical Engineering, Faculty of Industrial Chemistry, Technical University "Gheorghe Asachi" Iasi.

1987 Baccalaureate Industrial "Spiru Haret" High School, Moinești, Bacau.

3. Professional experience

2009 – present: Associate Professor at the Department of Chemical Engineering, Faculty of Chemical Engineering and Environmental Protection, "Gh. Asachi" Technical University of Iasi, Romania.

2004–2009: Lecturer at the Department of Chemical Engineering, Faculty of Chemical Engineering and Environmental Protection, "Gh. Asachi" Technical University of Iasi, Romania.

2001-2004: Assistant Professor at the Department of Chemical Engineering, Faculty of Chemical Engineering and Environmental Protection, "Gh. Asachi" Technical University of Iasi, Romania.

4. Research interests

***Instruments of artificial intelligence used in chemical engineering** (neural networks, genetic algorithms): Results – the application for the first time of artificial neural networks in the prediction of some excess thermodynamic properties and of neural networks combined with genetic algorithms for the prediction of the thermal stability of some ferrocene derivatives, polydimethylsiloxane/silica composites and polyimides; (**21** scientific papers, from which **18** in ISI journals, member of the research team in **4** research grants which focused on this topic). In this field, PhD Gabriela Lisa won a project manager position as part of the Idei 2007 competition, obtaining the score 96.50. The cumulated impact factor of the ISI works published through the financing of this project was 13.949.

***The physical-chemical characterization of some high performance materials:** Results – the elucidation, for the first time, of some aspects concerning the degradation mechanism of some ferrocene derivatives by applying the TG-MS-FTIR technique (**103** scientific papers, from which **74** in ISI journals, member of the team research in **5** grants in this field). These studies were published in prestigious journals such as: Polymer, Carbohydrate Research, Carbohydrate Polymers, Reactive and Functional Polymers, European Polymer Journal, Polymer Degradation and Stability, Thermochim. Acta, J. Therm Anal. Calorim.

***The study of the thermodynamic properties of the liquid – liquid binary systems and studies in the liquid – liquid extraction** : Results – the setting up of a new method for the determination of the individual coefficients of mass transfer at the liquid – liquid interface (**45** articles from which **15** in ISI journals; **4** CNSIS grants as manager). These results were published in a prestigious journal in the field of chemical engineering - Chemical Engineering and Processing.

5. Other academic activities

- Scientific reviewer for the published papers in abroad journals such as: *Journal of Applied Polymer Science*, *High Performance Polymer*, *Separation and Purification Technology*, *Journal of Molecular Structure*.
- Expert evaluator for national grants.

6. Selected publications

Abbreviations: **IF** = Impact Factor, **RS** = Relative influence Score of the journal, **PI-1** = Principal Investigator as paper's first author, **PI-C** = Principal Investigator as paper corresponding author.

Summary of the publications: Total no. of papers = **169**; ISI indexed no. of papers = **107**; BDI = **36**; other papers = **14**; no. of papers in conference volumes = **12**; no. of contracts as project manager = **5**; no. of contracts as execution member = **18**.

Cumulative IF = 119.002; cumulative RS = 71.0588.

Selected papers

1. „Preparation and phase behavior of blends of polysulfone-based polymers with phosphorous-containing smectic-A liquid crystals”
Tachita Vlad-Bubulac, Diana Serbezeanu, Corneliu Hamciuc, Oana Petreus, Ionela-Daniela Carja, **Gabriela Lisa**
Polymer Engineering and Science, 53, 1209-1216, **2013 (IF = 1.243, RS = 1.34906)**.
2. „Core-shell magnetic chitosan particles functionalized by grafting: Synthesis and characterization”
Gianina Dodi, Doina Hritcu, **Gabriela Lisa**, Ionel Marcel Popa
Chemical Engineering Journal, 203, 130-141, **2012 (IF = 3.461, RS = 2.4528)**.
3. „Ferrocene derivatives thermostability prediction using neural networks and genetic algorithms”
Gabriela Lisa, Daniela Apreutesei Wilson, Silvia Curteanu, Catalin Lisa, Ciprian George Piuleac, Victor Bulacovschi
Thermochimica Acta, 521, 26-36, **2011 (IF = 1.899, RS = 1.7374, PI-1)**.
4. „Artificial neural network for prediction of excess refractive indices of some binary mixtures”
Gabriela Lisa, S. Curteanu, C. Lisa
Environmental Engineering and Management Journal, 9(4), 483-487, **2010, (IF = 0.885, PI-1)**.

5. "Modeling the thermal stability of the polydimethylsiloxanes/silica green composites using neural networks"
A. Nistor, S. Curteanu, **Gabriela Lisa**, M. Cazacu
Environmental Engineering and Management Journal, 9(8), 1053-1061, **2010**, (IF = **0.885**)
6. „Neural networks used for modeling the thermal stability of polydimethylsiloxane/silica composites containing complexed lanthanum”
A. Nistor, **Gabriela Lisa**, S. Curteanu, A. Vlad, M. Cazacu
Revue Roumaine de Chimie, 55(9), 525-536, **2010**, (IF = **0.263**, RS = **0.12983**).
7. „Neural networks used for the prediction of the structure-thermal stability relation”
Catalin Lisa, **Gabriela Lisa** and Silvia Curteanu
Revue Roumaine de Chimie, 54(11-12), **2009**, 1133-1142. (IF = **0.263**, RS = **0.12983**, PI-C).
8. „Synthesis and Thermal Analysis of Some Ferrocene Derivatives”
D.A. Wilson, **Gabriela Lisa**, Dan Scutaru, Natalia Hurduc
Journal of the Iranian Chemical Society, 8(3), 782-793, **2011**, (IF = **1.5**, RS = **1.05719**, PI-C).
9. „Thermal degradation of some [1,3,4] oxadiazole derivatives with liquid crystalline properties”
Gabriela Lisa, Elena-Raluca Cioanca, Nita Tudorachi, Irina Carlescu, Dan Scutaru
Thermochimica Acta, 524, 179-185, **2011** (IF = **1.899**, RS = **1.7374**, PI-1).
10. "Investigation of thermal degradation of some ferrocene liquid crystals"
Gabriela Lisa, D. Apreutesei Wilson, D. Scutaru, N. Tudorachi, Natalia Hurduc
Thermochimica Acta, 507-508, 49-59, **2010** (IF = **1.899**, RS = **1.7374**, PI-1).
11. "Thermogravimetric analysis of fungus-degraded lime wood"
C-M Popescu, **Gabriela Lisa**, A. Manoliu, P. Gradinariu, C. Vasile
Carbohydrate Polymers, 80(1), 78-83, **2010** (IF = **3.167**, RS = **2.25994**).
12. "N-methylimidazolium functionalized strongly basic anion exchanger: Synthesis, chemical and thermal stability"
V. Neagu, E. Avram, **Gabriela Lisa**
Reactive and Functional Polymers, 70, 88-97, **2010**, (IF = **2.461**, RS = **1.98148**)
13. "Study on metal complexes of chelating resins bearing iminodiacetate groups"
E. S. Dragan, M. V. Dinu, **Gabriela Lisa**, A.W. Trochimczuk
European Polymer Journal, 45(7), **2009**, 2119-2130, (IF = **2.347**, RS = **2.27523**).
14. „Azopolysiloxanes Modified with Nucleobases: 1. Thermal Characterization of some Nanostructurable Materials with Potential Application in Biology"
Gabriela Lisa, Ramona Enea, Nicolae Hurduc, Natalia Hurduc
High Performance Polymers, 21, 340–352, **2009**, (IF = **0.988**, RS = **0.92966**, PI-1).
15. "Characterization by Dynamic Thermal Methods of Some Bis-Azopolyethers with Flexible Spacer"

Gabriela Lisa N. Hurduc, S. Alazaroaie, Natalia Hurduc
Polymer Bulletin, 61, 759–769, 2008, (IF = 1.014, RS = 0.91437, PI-1)

16. “Thermogravimetric characterization of chitosan/alginate microparticles loaded with different drugs”
M. I. Popa, **Gabriela Lisa**, N. Aelenei
Polymer Bulletin, 61, 481-490, 2008, (IF = 1.014, RS = 0.91437, PI-C).
17. „, The non-isothermal degradation process of some aromatic azo-polymers”
N.Hurduc, **Gabriela Lisa**, C.Damian V. Toader, N. Hurduc
High Performance Polymers, 19, 477-496, 2007 (IF = 0.988, RS = 0.92966, PI-C)
18. "Synthesis and un-isotherm kinetic study of some ferrocene acids"
D. Apreutesei, **Gabriela Lisa**, N.Hurduc, D.Scutaru
Central European Journal of Chemistry, 2 (4), 553-562, 2004. (IF = 1,065, RS = 0.75734, PI-C).
19. „, Physico - Chemical Properties of Chitosan Films”
L.Balau, **Gabriela Lisa**, M.I. Popa, V. Tura, V. Melnig
Central European Journal of Chemistry, 2 (4), 638-647, 2004. (IF = 1,065, RS = 0.75734, PI-C).
20. „,Thermal behavior of polystyrene, polysulfone and their substituted derivates”
Gabriela Lisa, E. Avram, G. Paduraru, M.Irimia, N. Hurduc, N. Aelenei
Polymer Degradation and Stability, 82(1), 73-79, 2003 (IF = 2,347, RS = 2.0367, PI-1).
21. „,Mass transfer resistance in liquid-liquid extraction with individual phase mixing”
Gabriela Apreutesei Lisa, Radu Z. Tudose, H. Kadi
Chemical Engineering and Procesing, 42(11), 909-916, 2003. (IF = 1,742, RS = 1.55556, PI-1)
22. „, Mass transfer coefficients in liquid-liquid extraction”
Radu Z. Tudose, **Gabriela Apreutesei (Lisa)**
Chemical Engineering and Procesing, 40(5), 477-485, 2001 (IF = 1,742, RS = 1.55556, PI-C).

Selected contracts

1. International project COST Action FP1006 “*Bringing new functions to wood through surface modification*”, member Management Committee and member of working group WG 3: Process and Service life modeling, Chair of action dr. Stefanie Wieland, <http://cost-fp1006.fh-salzburg.ac.at/>, 2011-2013.
2. International project Cost FP0802, “*Experimental and Computational Micro-Characterization Techniques in Woods Mechanics*”, member Management Committee and member of working Group 3, Computational Modelling, Chair of action dr. Karin Hofstette, <http://cost-fp0802.tuwien.ac.at/news.html>, 2009 – 2011.

3. "New applications of artificial intelligence tools in modeling and estimation of physico-chemical properties, beneficial UEFISCSU, PNII ID_600/ Project no. 64/1.10.2007, Project Manager, **2007-2010**.
4. „Modeling and optimal control based on artificial intelligence tools for chemical and process engineering applications”, PN II, grant no. 71 – 006/18.09.2007, member **2007-2010**.
5. “Centre Thermo-rheological performance evaluation of the synthesis of polymeric materials to final product (CENTER), contracted capacity, PNII, Module I, PI-CD, no.183 CPI/05.09.2008, member, **2008 – 2011**.
6. "High performance multifunctional polymeric materials for medicine, pharmacy, microelectronics, energy / information storage, environment protection" Platform CNCSIS no. 69/2006, member, **2006-2008**.