WOINAROSCHY ALEXANDRU, professor

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Contact information

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Education and training

Dates	1) 1965 – 1970 ; 2) 1980 - 1985
Title of qualification awarded	1) MS chemical engineer; 2) Ph.D. in Chemical Engineering
Principal subjects/occupational skills covered	1) Student; 2) Ph.D Student
Name and type of organisation providing education and training	Faculty of Industrial Chemistry, University "POLITEHNICA" of Bucharest
Level in national or international classification	Level A in national classification

Professional experience

Dates	1) 1970-1980; 2) 1980-1990; 3) 1990-1994; 4) 1994-present.
Occupation or position held	1) Assistant; 2) Lecturer; 3) Associate Professor (Reader); 4) Full Professor.
Main activities and responsibilities	- Teaching activities (seminars, projects, courses, examinations, practical student activities supervising); - Supervisor of Ph.D. Theses in the field : *Chemical Engineering* (from 1997); - Member of Teaching Councile of the Faculty (1996 – 2000 and 2004 – 2012)
Name and address of employer	Department of Chemical Engineering, University "POLITEHNICA" of Bucharest;
Type of business or sector	Academic

Academic and research interests

- Optimization of Chemical and Biochemical Engineering Processes;

- Dynamic Simulation of Chemical Engineering Processes;
- System Analysis and Synthesis;
- Chemical and Biochemical Reactors Modeling and Simulation;
- Application of Artificial Neural Networks Chemical and Biochemical Engineering.

Teaching activity

Se completeaza conform indicatiilor din tabel

Ciclu studii (Master/licenta)	*Denumire specializare*	*Cod disciplina din planul de invatamant*	*Titlu disciplina*	*Tip activitate (curs/proiect/laborator etc)*
Licenta	*Inginerie chimica*	UPB.11.S.08.O.512	*Optimimizarea proceselor chimice si biochimice*	*Curs*
Licenta	*FILS*	UPB.11S.07.O.501	*Unit Operations*	*Curs*
Master	*Inginerie chimica*	UPB.11.S.09.O.205	*Metode numerice si optimizari*	*Curs*

Publication (selective):

Books

1.Smighelschi, O. and Woinaroschy, A., 1978 : **Optimization of chemical engineering processes,** Ed. Tehnica, Bucharest, 424 pages, ISBN 973-31-0181-8.
2.Woinaroschy, A. and Smighelschi, O, 1983, **System engineering and chemical process optimization**, Ed. Didactica si Pedagogica, Bucharest,194 pages.
3. Muntean, O., Woinaroschy, A. and Bozga, G.,1984, **Applications to chemical reactors design**, Ed. Tehnica, Bucharest, 404 pages, ISBN 973-31-0181-8.
4. Woinaroschy, A., Mihai, M. and Isopescu, R.,1990, **Optimization of chemical engineering processes-examples and applications**, Technical Publishing House, Bucharest, 1990, 328 pages, ISBN 973-31-0181-8.
5. Ofiteru, D., Lavric, V. and Woinaroschy, A., 2003, **Introduction in Animal Cells Bioengineering**, MatixRom, Bucharest, 97 pages, ISBN 973-685-584-8.
6. Lavric, V., Ofiteru, D. and Woinaroschy, A., 2004 : **Modelling of Animal Cells Bioreactors**, MatrixRom, Bucharest, 137 pages, ISBN 973-685-690-9.

Articles

1.Woinaroschy, A., Isopescu, R. and Filipescu, L., 2000, **X-Ray Patterns Identification of Crystallized Sodium Disilicates Mixtures**, Crystal Research and Technology, **35**, nr. 8, p. 969-977, ISSN 0232-1300.
2. Jinescu, G., Woinaroschy, A., Vasilescu, P. and Mincu, M., 2002, **Dynamic Model for the Adsorption in a Multibed Three-Phase Fluidization Column Applied to Wastewater Biological Treatment**, Chemical Engineering and Technology - Eng. Life Sci. **2**, nr. 11, p. 353-357, ISSN 0930-7516.
3. Lavric, V., Ofiţeru, I. D., and Woinaroschy, A. : **A sensitivity analysis of the fed-batch animal-cell bioreactor with respect to some control parameters**, Biotechnology and Applied Biochemistry, **41**, part 1, 2005, p.29-35, ISSN 0885-4513.
4. Lavric, V., Ofiţeru, I. D., and Woinaroschy, A. : **Continuous hybridoma bioreactor : sensitivity analysis and optimal control**, Biotechnology and Applied Biochemistry, **44**, part 2, 2006, p.81-92, ISSN 0885-4513.

5. A. Woinaroschy: **Time-Optimal Control of Startup Distillation Columns by Iterative Dynamic Programming**, Ind. Eng. Chem. Res. **47**, nr. 12, 2008, p. 4158-4169, ISSN 0888-5885.
6. A. Woinaroschy, G. Jinescu and M. Petrescu: **Parameter Sensitivity Analysis of a Spouted Bed**, Chemical Engineering and Technology, **31**, nr. 7, 2008, p.990-992, ISSN 0930-7516.
7. A. Woinaroschy: **Time-Optimal Control of Startup Distillation of Nonideal Mixtures,** Ind. Eng. Chem. Res. **48**, nr. 8, 2009, p. 3873-3879, ISSN 0888-5885.
8. A. Woinaroschy and R. Isopescu: **Time-Optimal Control of Dividing-Wall Distillation Columns**, Ind. Eng. Chem. Res. **49**, nr. 19, 2010, p. 9195-9208, ISSN 0888-5885.
9. S. Taraş and **A. Woinaroschy**: **An Interactive Multi-Objective Optimization Framework for Sustainable Design of Bioprocesses**, Comp. Chem. Eng. **43**, 2012, p. 10-22, ISSN 0098-1354.

Research projects

1. Multilevel optimization of sustainable bioprocesses (national grant IDEI 2009-2011).
2. Simulation and optimization of monoclonal antibodies production in animal cell bioreactors (grant supported by the National University Research Council, 2005-2007).
3. Contributions to the development of optimization techniques in the aim of overall efficiency improving and global optimum identification (grant supported by the National University Research Council 2001- 2003).
4. Parallel distributed algorithms for modeling and optimization of chemical engineering processes (grant supported by the National Agency for Science and Technology 1999-2001).
5. New methods for structures identification in crystalline oxide systems based on artificial neural networks (grant supported by the National Agency for Science and Technology, 1999).
6. Parameter identification of chemical engineering processes (grant supported by the National University Research Council, 1998).

Other information

- Member of Romanian Academy of Technical Sciences.
- Prize "*Nicolae Teclu*" of Romanian Academy for the works concerning with applications of Artificial Neural Networks in Chemical Engineering, 1996.
- Prize of Revista de Chimie for the best published paper in 2008.
- Expert of The Romanian Agency for Quality Assurance in Higher Education (ARACIS).
- Vice-president (1995-2010) of the Romanian Society of Chemical Engineering.
- Listed in: Marquis Who's Who in Science and Engineering, 6^{th} - 13^{th} Editions, 2002-2011; Marquis Who's Who in the World, from 18^{th} Edition, 2001, to 25^{th} Edition, 2008; Who's Who in Romania, 2002- 2011 Editions; Hubners Who is Who, 2^{nd} – 5^{th} Editions.