



## Catinca SECUIANU

Associate Professor  
Faculty of Applied Chemistry and Materials Science

Department of Inorganic Chemistry, Physical Chemistry &  
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Group of Thermodynamics Research



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### Biography

Date	Role
2012-	Associate Professor, Inorganic Chemistry, Physical Chemistry & Electrochemistry Department, Politehnica University of Bucharest
2011-	Honorary Research Fellow, Chemical Engineering Department, Imperial College London, UK
2009-2011	Research Fellow, Qatar Carbonates and Carbon Storage Research Centre (QCCSRC), Chemical Engineering Department, Imperial College London, UK
2007-2012	Senior Lecturer, Applied Physical Chemistry & Electrochemistry Department, Politehnica University of Bucharest
2004-2007	Assistant Professor, Applied Physical Chemistry & Electrochemistry Department, Politehnica University of Bucharest
2000-2004	Ph.D. in Chemical Engineering, Applied Physical Chemistry & Electrochemistry Department, Politehnica University of Bucharest, Thesis Title: <i>“High Pressure Vapor-Liquid Equilibria in the Binary Systems Carbon Dioxide + Monohydroxilic Alcohols”</i> , Thesis Supervisor: Prof. Dan Geană
2000-2001	Advanced Studies (First Class Honors), Applied Physical Chemistry & Electrochemistry Department, Politehnica University of Bucharest, Dissertation: <i>Vapor-Liquid Equilibria in the Binary Mixtures of n-Alkanes with Carbon Dioxide</i>
1995-2000	M.Sc. (Graduate Engineer/Diplomate engineer), Technology of Organic Substances, Faculty of Industrial Chemistry, Politehnica University of Bucharest, Diploma thesis: <i>Formation of C-C bonds in the reactions of benzylic halides with metal carbonyl</i>

### Research

#### Research Interests

- Phase behaviour and thermophysical properties of complex fluid systems at high-pressures;
- Equations of state and mixing rules;
- Modelling
- Carbon Capture & Storage;



- Phase diagrams;
- Sustainable energy.

### Selected Research Projects

- *Cosolvency Effects, Miscibility Windows and Critical Holes in High-Pressures Phase Equilibria*, CNCSIS IDEAS 2007-2010, Project PI;
- *Measurements and modeling of high-pressure phase behavior of binary carbon dioxide + 1-pentanol and carbon dioxide + 1-hexanol systems*, CNCSIS AT, 2006-2007, Project manager;
- *High-pressure vapor-liquid equilibria measurements in the binary systems carbon dioxide + 2-butanol. Correlations with equations of state*, CNCSIS TD, 2004, Project manager.

### Academic interests

#### Teaching activity

Studies	Program Name/Faculty	Code	Title	Activity type
Bachelor	Chemical Engineering, Environment Engineering/Applied Chemistry & Materials Science	UPB.11.F.03.O.003 UPB.11.F.04.O.002	Physical Chemistry	Applications
	Food Control & Engineering/Applied Chemistry & Materials Science	11.F.02.O.003	Physical & Colloidal Chemistry	Applications
	Science & Engineering of Oxide Materials and Nanomaterials, Organic Substances Chemistry & Engineering, Petrochemical & Carbochemistry, Polymers Science & Engineering, Food Chemistry & Biochemical Technologies, Computer Engineering & Process Chemistry & Biochemistry	UPB.11.F.05.O.602 UPB.11.F.05.O.402 UPB.11.F.05.O.802 UPB.11.F.05.O.302 UPB.11.F.05.O.505	Physical Chemistry	Applications
	Chemical Engineering, Environment Engineering/Applied Chemistry & Materials Science	UPB.11.F.04.O.007	Physical Chemical Properties of Fluids. Dabase	Course
	Chemical Engineering/Engineering in Foreign Languages	F.3.O.031.EC F.3.O.032.EC F.4.O.032.EC	Physical Chemistry I Physical Chemistry I Laboratory Physical Chemistry II Laboratory	Course & Tutorials Applications Applications
	Food engineering/Biotechnical Systems Engineering	07.F.02.O.003	Physical & Colloidal Chemistry	Applications
	Economic Engineering in Chemical & Materials Industry/Entrepreneurship, Business Engineering & Management	UPB.15.S.03.O.202	Physical Chemistry	Course & Applications
	Medical Engineering, Economic Engineering in Chemical & Materials Industry, Engineering & Environmental Protection in Industry/ Materials Science & Engineering	10.D.03.O.004	Physical Chemistry	Applications
	Materials Engineering/Materials Science & Engineering	10.F.03.O.004	Physical Chemistry	Applications
	Master	Chemicals, Food, & Materials Expertise/Applied Chemistry & Materials Science	MC6S4C5	Fluid Materials Expertize at Extreme Pressures

#### Other Teaching



## Honours and Awards

### *Invited Lectures and Presentations*

Secuianu, C., *Experiments and modelling of asymmetric systems at high pressures*, Centre for Process Systems Engineering, September 14, 2011, Imperial College London, London, United Kingdom.

### *Awards*

- 2012 Executive Unit for Financing Higher Education, Research Development and Innovation (UEFISCDI): One prize for research results (RU/ PN-II-RU-PRECISI-2012-6-1096)
- 2011 National Research Council of Romania: Two prizes for research results (RU/PN-II-RU-PRECISI-2011-3-1473, RU/PN-II-RU-PRECISI-2011-3-1475)
- 2010 National University Research Council of Romania (CNCSIS): Two Prizes for research results (RU/Cod CNCSIS 490; RU/Cod CNCSIS1075; RU/Cod CNCSIS 1369; <http://cnscis.ro/articole/2131/Proces-evaluare-2010.html>)
- 2009 National University Research Council of Romania (CNCSIS): Three Prizes for research results (RU-255, Stage I 2009, RU-781, RU-782, Stage II 2009)
- 2008 National University Research Council of Romania (CNCSIS): Three Prizes for research results (RU-83 July 2008, RU-59 August 2008, RU-12, RU-325 October 2008)
- 2007 National University Research Council of Romania (CNCSIS): Two Prizes for research results: (RU-24, RU-25)
- 2005 The prize "*In tempore opportuno*" of the Politehnica University of Bucharest
- 2004 The "*Young Ph.D. Student Award*" of the Politehnica University of Bucharest

### *Membership of Professional Bodies*

- From 2005: Member of the Romanian Chemical Society
- From 2007: Member of the Romanian Society for Chemical Engineering
- From 2007: **National Delegate of Romania** of the **Working Party on Thermodynamics and Transport Properties (WP-TTP)**, one of the seventeen WPs of the *European Federation of Chemical Engineering* (EFCE), <http://www.wp-ttp.dk/NationalDelegates.html>
- From 2010: Member of Section on Product Design and Engineering of the *European Federation of Chemical Engineering*
- From 2010: Member of Section on Process Engineering for Sustainable Energy of the *European Federation of Chemical Engineering*

### *Other Significant Activities*

- From 2012: **Vice Dean** of Faculty of Applied Chemistry & Materials Science
- From 2011: **Physical Chemistry Editor** of *Central European Journal of Chemistry*, Springer, ISSN 1895-1066, IF 2011: 1.073
- From 2008: **Member of the Editorial Board** of [International Journal of Liquid State Sciences \(IJLSS\)](http://www.intl-jlss.com), ISSN: 0975-4504.

**Socrates Bilateral Agreement 2009-2013** Politehnica University of Bucharest - National Technical University of Athens, Dr. C. Secuianu - Dr. E. Voutsas.



**Reviewer** for *Journal of Chemical & Engineering Data*, *Central European Journal of Chemistry*, *International Journal of Liquid State Sciences*, *Chemical Reviews*, *Theoretical Chemistry Accounts*, *The Journal of Chemical Thermodynamics*, *Chemical Engineering Communications*, *The Journal of Supercritical Fluids*, *Chemical Engineering Science*, *Fluid Phase Equilibria*, *Chemical Industry & Chemical Engineering Quarterly*.

**Member of the Jury** for the “C.D. Nenițescu” Chemistry National Contest for Students, Section of Physical Chemistry

**Member of Organizing Committee** of “The Romanian International Conference on Chemistry and Chemical Engineering (RICCCE)”, Section Physical Chemistry, Electrochemistry & Corrosion:

- ✓ RICCCE 12, September 2001, Bucharest, Romania
- ✓ RICCCE 13, September 2003, Bucharest, Romania
- ✓ RICCCE 14, September 2005, Bucharest, Romania
- ✓ RICCCE 15, September 2007, Sinaia, Romania
- ✓ RICCCE 16, September 2009, Sinaia, Romania
- ✓ RICCCE 18, September 2013, Sinaia, Romania

## Plenary Lectures

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## Further Information

Hirsch Index: 8 (ISI Web of Knowledge, February 2013)

## Publications

### Journal Articles

Secuianu, C., Qian, J., Privat, R., Jaubert, J.-N., **Fluid Phase Equilibria Correlations for Carbon Dioxide + 1-Heptanol System with Cubic Equations of State**, *Ind. Eng. Chem. Res.* 2012, 51, 11284-11293, ISSN: 0888-5885, IF 2011: 2.237, DOI: 10.1021/ie3015186.

Secuianu, C., Maitland, G.C., Trusler, J.P.M., Wakeham, W.A., **Diffusion coefficients of aqueous KCl at high pressures measured by the Taylor dispersion method**, *J. Chem. Eng. Data* 2011, 56 (12), 4840-4848, Festschrift K. Marsh, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je200808q.

Secuianu, C., Feroiu, V., Geană, D., **Measurements and Modelling of High Pressure Phase Behavior of Carbon Dioxide + 1-Pentanol Binary System**, *J. Chem. Eng. Data* 2011, 56 (12), 5000-5007, Festschrift K. Marsh, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je200867n.

Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria of carbon dioxide + 1-nonanol system at high pressures**, *J. Supercritical Fluids* 2010, 55 (2), 653-661, “100<sup>th</sup> year Anniversary of van der Waals' Nobel Lecture”, ISSN: 0896-8446, IF 2011: 2.860, DOI: dx.doi.org/10.1016/j.supflu.2010.09.018.

Secuianu, C., Feroiu, V., Geană, D., **Phase behavior for carbon dioxide + n-pentadecane binary system**, *J. Chem. Eng. Data* 2010, 55, 4255-4259, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je100404g.

Secuianu, C., Feroiu, V., Geană, D., **High-pressure phase equilibria in the (carbon dioxide + 1-hexanol) system**, *J. Chem. Thermodyn.* 2010, 42, 1286-1291, ISSN: 0021-9614, IF 2011: 2.422, DOI: <http://dx.doi.org/10.1016/j.jct.2010.05.006>.



Feroiu, V., Geană, D., Secuianu, C., **Thermodynamic of some chloro-fluoro-hydrocarbons from cubic equations of state**, *U.P.B. Sci. Bull., Series B*, 2010, 72 (1), 37-46, ISSN: 1454-2331, IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **Phase behavior for carbon dioxide + methanol system: experimental measurements and modeling with a cubic equation of state**, *Intern. J. Liq. State Sci. (IJLSS)*, 2010, 2 (1) 1-14, ISSN: 0975-4504, IF 2011: -, DOI: -.

Secuianu, C., Crișciu, A., **Physical properties for binary and ternary mixtures of hexadecyltrimethylammonium bromide with water, and different alcohols**, *J. Optoelectronics Adv. Mat. Symposia* 2009, 1 (6), 1118-1123, ISSN: 2066-057X (print), 2066-0596 (online), IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria calculations for carbon dioxide + methanol binary mixture with the Huron-Vidal infinite dilution (HVID) mixing rules**, *Rev. Chim. (Bucharest)* 2009, 60 (5), 472-475, ISSN: 0034-7752, IF 2011: 0.599, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **Phase behavior for carbon dioxide + 2-butanol system: experimental measurements and modeling with cubic equations of state**, *J. Chem. Eng. Data* 2009, 54 (5), 1493-1499, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je800799n.

Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria experiments and calculations for carbon dioxide + methanol binary system**, *Cent. Eur. J. Chem.*, 2009, 7 (1), 1-7, **Invited paper**, ISSN: 1895-1066 (Print); 1644-3624 (Online), IF 2011: 1.073, DOI: 10.2478/s11532-008-0085-5.

Secuianu, C., Feroiu, V., Geană, D., **Phase behavior for carbon dioxide + ethanol system: experimental measurements and modeling with a cubic equation of state**, *J. Supercritical Fluids*, 2008, 47 (2), 109-116, ISSN: 0896-8446, IF 2011: 2.860, DOI: dx.doi.org/10.1016/j.supflu.2008.08.004.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibria for the Carbon Dioxide + 1-Propanol System**, *J. Chem. Eng. Data*, 2008, 53 (10), 2444-2448, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je8004485.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid and Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide + 1-Heptanol System**, *Fluid Phase Equilib.* 2008, 270 (1-2), 109-115, ISSN: 0378-3812, IF 2011: 2.139, DOI: http://dx.doi.org/10.1016/j.fluid.2008.06.020.

Feroiu, V., Geană, D., Secuianu, C., **Properties of refrigerants from cubic equations of state**, *Rev. Chim. (Bucharest)* 2008, 59 (5), 554-557, ISSN: 0034-7752, IF 2011: 0.599, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria of Carbon Dioxide + 1-Pentanol System: Experimental Measurements and Modeling**, *Rev. Chim. (Bucharest)* 2007, 58 (12), 1176-1181, ISSN: 0034-7752, IF 2011: 0.599, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **Investigation of phase equilibria in the ternary system carbon dioxide + 1-heptanol + pentadecane**, *Fluid. Phase Equilib.* 2007, 261 (1-2), 337-342, ISSN: 0378-3812, IF 2011: 2.139, DOI: http://dx.doi.org/10.1016/j.fluid.2007.07.001.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibrium for Carbon Dioxide + Ethanol at 333.15 K**, *Sci. Tech. Environ. Protect. J.* 2005, 12 (1), 77-86, ISSN: 1221-6909, IF 2011: -, DOI: -.



Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide + Ethanol. Experimental Data and Calculations with an Equation of State**, *U.P.B. Sci. Bull.*, Series B, 2004, 66 (1), 9-18, ISSN: 1454-2331, IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide + 2-Butanol and Calculations with EOS methods**, *Sci. Tech. Environ. Protect. J.* 2004, 11 (1), 48-60, ISSN: 1221-6909 IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide + 1-Butanol at Temperatures from 293.15 to 324.15 K**, *J. Chem. Eng. Data* 2004, 49 (6), 1635-1638, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je0499521.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibrium in Binary Mixtures of Carbon Dioxide + 1-Butanol**, *Sci. Tech. Environ. Protect. J.* 2003, 10 (1), 62-70, 2003, ISSN: 1221-6909 IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., and Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide and Methanol at Temperatures from 298.15 K to 323.15 K**, *Ann. W.U.T.-Ser. Chem.* 2003, 12 (3), 393-400, ISSN: 1453-7672, IF 2011: -, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibria for the Carbon Dioxide + Methanol and Carbon Dioxide + Isopropanol Systems**, *Rev. Chim. (Bucuresti)*, 2003, 54 (11), 874-879, , ISSN: 0034-7752, IF 2011: 0.599, DOI: -.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide and 2-Propanol at Temperatures from 293.25 K to 323.15 K**, *J. Chem. Eng. Data* 2003, 48 (6), 1384-1386, ISSN: 0021-9568, IF 2011: 1.693, DOI: 10.1021/je034027k.

## Books

Secuianu, C., **High Pressure Phase Equilibria**, Ed. Printech, Bucharest, 2007, ISBN: 978-973-718-854-0 (in Romanian).

## Chapters

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## Conferences

Secuianu, C., Feroiu, V., Geană, D., **High pressure phase equilibria for carbon dioxide (1) + 1-dodecanol (2) binary system**, in *26<sup>th</sup> European Symposium on Applied Thermodynamics ESAT 2012*, 07-10 October 2012, Kongresshotel Potsdam, Germany (oral communication).

Secuianu, C., Feroiu, V., Geană, D., **High pressure phase equilibria of CO<sub>2</sub> + 1-dodecanol**, in the *Romanian International Conference on Chemistry and Chemical Engineering (RICCCE) 17*, 7-10 September, 2011, Sinaia, Romania (poster).

Secuianu, C., Maitland, G.C., Trusler, J.P.M., **Diffusion coefficients of aqueous KCl at high pressures measured by the Taylor dispersion method**, in *25<sup>th</sup> European Symposium on Applied Thermodynamics ESAT 2011*, June 24-27, Saint Petersburg, Russia, pp 115-118 (oral communication), ISBN 5-85263-061-6.



Secuianu, C., Feroiu, V., Geană, D., **Phase Equilibria of Carbon Dioxide + 1-Pentanol System at High Pressures**, in *25<sup>th</sup> European Symposium on Applied Thermodynamics ESAT 2011*, June 24-27, Saint Petersburg, Russia, pp 395-398 (poster), ISBN 5-85263-061-6.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibria for Carbon Dioxide (1) + 1-Pentanol (2) Binary System** in *Molecular Modelling & Simulation for Process and Product Design*, March 22 - 23, 2010, Würzburg, Germany, EFCE-Event No. 687.

Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria in the ternary system carbon dioxide + 1-hexanol + pentadecane**, in the *Romanian International Conference on Chemistry and Chemical Engineering (RICCCE) 16*, 9-12 September, 2009, Sinaia, Romania, ISBN: 978-606-521-349-4.

Secuianu, C., **Densities, refractive indices, and derived excess properties of the 2-hexanol + 2-octanol + n-octane ternary system at 298.15 K**, in the *Romanian International Conference on Chemistry and Chemical Engineering (RICCCE) 16*, 9-12 September, 2009, Sinaia, Romania, ISBN: 978-606-521-349-4.

Secuianu, C., Feroiu, V., **Physical properties for 1-pentanol + pentadecane and 1-hexanol + pentadecane binary systems**, in the *Romanian International Conference on Chemistry and Chemical Engineering (RICCCE) 16*, 9-12 September, 2009, Sinaia, Romania, ISBN: 978-606-521-349-4.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Phase Equilibria in the Carbon Dioxide + 1-Pentadecane System**, in *24<sup>th</sup> ESAT European Symposium on Applied Thermodynamics*, June 27 – July 1, 2009, Santiago de Compostela, Spain (poster), ISBN: 978-84-692-2664-3.

Secuianu, C., Crișciu, A., **Physical properties for binary and ternary mixtures of hexadecyl-trimethyl-ammonium bromide with water, and different alcohols**, in *BraMat 2009 – International Conference on Materials Science and Engineering*, February 26-28, 2009, Brașov, România, P6.20 (poster), ISBN: 973-635-454-7.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid and Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide + 1-Hexanol System**, in *ESAT 2008 Proceedings of 23<sup>rd</sup> European Symposium on Applied Thermodynamics*, May 29<sup>th</sup>-June 1<sup>st</sup>, Cannes, France (oral communication), pp. 31, CD: pp. 79-86, ISBN: 2-905267-59-3.

Crișciu, A., Secuianu, C., **New methods from old: using modern techniques to improve graphical data processing routine**, in *15<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering RICCCE 15*, Sinaia, Romania, 19-22 September 2007, RICCCE XV Book of abstract, pp. 3-4 (poster), ISBN: 978-973-718-758-7.

Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria calculations for carbon dioxide + methanol binary mixture with the Huron-Vidal infinite dilution (HVID) mixing rules**, in *15<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering RICCCE 15*, Sinaia, Romania, 19-22 September 2007, RICCCE XV Book of abstract, pp. 1-2, (oral communication), ISBN: 978-973-718-758-7.

Secuianu, C., Feroiu, V., Geană, D., **Prediction of phase equilibria in the ternary system carbon dioxide + 1-heptanol + pentadecane**, in *Eleventh International Conference on Properties and Phase equilibria for Product and Process Design PPEPPD 2007*, May 20-25, 2007, Hersonissos, Crete, Greece, (poster), Book of abstract p.147, Proceedings of conference (CD-ROM), pp. 1-10 (ISI Proceedings).



Secuianu, C., Feroiu, V., Geană, D., **Phase equilibria calculations for carbon dioxide + alcohols binary mixtures with the Huron-Vidal infinite dilution (HVID) mixing rules**, in *“Romphyschem-12” International Conference on Physical Chemistry*, Bucharest, Romania, 6-8 September 2006, pp. 235.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid and Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide + 1-Heptanol System**, in *“ESAT 2006” 22<sup>nd</sup> European Symposium on Applied Thermodynamics*, Elsinore, Denmark, 28 June-1 July 2006, pp 199-202, ISBN: 87-91435-39-0.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide + 1-Nonanol System**, in *14<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering RICCCE 14*, Bucharest, Romania, 22-24 September 2005, RICCCE XIV Proceedings Volume 2, pp 9-15, ISBN: 978-973-718-785-7.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid and Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide + 1-Nonanol System**, in *“Thermodynamics 2005” Thermodynamics and statistical mechanics with industrial applications*, Sesimbra, Portugal, 6-8 April 2005, PS a 43a, pp 130.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide + 2-Butanol at Temperatures from 298.15 K to 318.15 K**, in *“BRAMAT 2005” Proceedings International Conference on Materials Science and Engineering*, Braşov, România, 24-26 February 2005, P5A15, CD, Book of Abstracts, pp. 281, ISBN: 973-635-454-7.

Secuianu, C., Feroiu, V., Geană, D., **Measurements of Vapor-Liquid Equilibria for Carbon Dioxide + 1-Butanol System Using a Variable-Volume Visual Cell**, in *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering RICCCE 13*, Volume 2, Bucharest, Romania, September 2003, pp. 104-109 (oral communication), ISBN: 973-652-824-3.

Secuianu, C., Feroiu, V., Geană, D., **High-Pressure Vapor-Liquid Equilibria in the System Carbon Dioxide and Methanol at Temperatures from 298.15 K to 323.15 K** in *11<sup>th</sup> Physical Chemistry Conference with International Participation*, Timișoara, România, September 2-5, 2003 (oral communication).

Secuianu, C., Geană, D., **Vapor-Liquid Equilibria Calculation in Binary Mixtures of Carbon Dioxide with n-Alkanes**, in *12<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering RICCCE 12*, Bucharest, Romania, September 13-15, 2001, pp. 91-96 (poster), ISBN: 973-652-382-9.

## Patents

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## Other

Secuianu, C., McBride-Wright, M., Maitland, G.C., Trusler, J.P.M., *Project 2, Task 2.2.5. Transport properties and transport processes*, Annual Technical Review Meeting, 26-28 January 2011, Imperial College London (oral communication).





Secuianu, C., Project 2, Task 2.2.5. *Transport properties and transport processes, 2.2.5.b. Diffusion Coefficients Measurements*, Annual Technical Review Meeting, 26-28 January 2011, Imperial College London (poster).

Secuianu, C., *How to conduct an effective and valid literature search*, November 18, 2010, Imperial College London, Thermophysics Group Meetings (oral communication).

Secuianu, C., *Project 2.2.5. Diffusion Coefficients Experimental Measurements by Taylor Dispersion Technique*, July 23, 2010, Imperial College London, "Clean Fossil Fuels" Seminar Series (oral communication).

Secuianu, C., *Diffusion Coefficients Experimental Measurements by Taylor Dispersion Technique. Preliminary results*, June 17, 2010, Imperial College London, Thermophysics Group Meetings (oral communication).

Secuianu, C., *High pressures phase equilibria and transport properties in binary systems containing CO<sub>2</sub>*, May 17, 2010, Imperial College London (oral communication).

Secuianu, C., *Synthetic mixtures for Qatar Carbonates and Carbon Storage Centre (QCCSRC)*, April 15, 2010, Imperial College London, Thermophysics Group Meetings (oral communication).

Secuianu, C., *Diffusion Coefficients Experimental Measurements by Taylor Dispersion Technique. Apparatus Design*, March 11, 2010, Imperial College London (oral communication).

Secuianu, C., *Cosolvency effects, miscibility windows and other phenomena in high pressure phase equilibria*, February 26, 2010, Imperial College London (oral communication).

Secuianu, C., *Transport Properties and Processes, Project 2 – Carbonate reservoir pore/fracture-scale physics and chemistry*, Launch Workshop, February 1<sup>st</sup> 2010, Imperial College London (poster).

Secuianu, C., *Diffusion coefficients measurements using Taylor Dispersion Apparatus*, January 14, 2010, Imperial College London (oral communication).

Secuianu, C., *Thermophysical Properties - Gap Analysis for Qatar Carbonates and Carbon Storage Centre (QCCSRC)*, December 12, 2009, Imperial College London (oral communication).

Secuianu, C., *High Pressures Phase Equilibria*, December 3, 2009, Imperial College London, "Clean Fossil Fuels" Seminar Series (oral communication).