

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: Inginerie Chimică și Biotehnologii

Departamentul: Chimie Anorganică, Chimie Fizică și Electrochimie

Nume Prenume: Sima Sergiu

Gradul didactic: Șef lucrări

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Sima, S., *Echilibre de faze la presiuni înalte în sisteme cu dioxid de carbon*, Universitatea Politehnica din București, București, 2012.

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. Secuianu, C., **Sima, S.**, Phase Equilibria for Carbon Capture & Storage in Carbon Capture, S.A. R. Khan (Editor), Ed. IntechOpen Ltd, 2020, ISBN 978-1-78985-853-2.

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. Crisciu, A.V.; **Sima, S.**; Secuianu, C.; The influence of pure compounds' parameters on the phase behaviour of carbon dioxide+1-hexanol binary system; *FLUID PHASE EQUILIBRIA*; 589; articolul 114281, 2025

2. **Sima, S.**; Secuianu, C.; Nichita, D.V.; Fluid-Phase Equilibrium Experiments and Modeling for CO₂ + C₆ Binary Systems; *JOURNAL OF CHEMICAL AND ENGINEERING DATA*; 69; Issue 10; Page 3555-3565; 2024

3. Ionita, M.; **Sima, S.**; Crisciu, A.; Secuianu, C.; Nichita, D.V.; Phase behavior of carbon dioxide+2,4-dimethylpentane binary system at high pressures; *JOURNAL OF SUPERCRITICAL FLUIDS*, 199, articolul 105941, 2023, ISI Q2

4. **Sima, S.**, Secuianu, C., Feroiu, V., Geana, D.; High-pressure phase equilibria of carbon dioxide+2-octanol binary system; *FLUID PHASE EQUILIBRIA*, 510, articolul 112487, pag. 1-10, ISI Q2

5. Crisciu, A.; Racovita, R.-C.; Secuianu, C.; **Sima, S.**; A Convenient Hybrid Method for Obtaining Liquid-Liquid Equilibrium Data in Ternary Systems; *JOURNAL OF CHEMICAL AND ENGINEERING DATA*; 65, 3384-3392, 2020, ISI Q2

6. **Sima, S.**; Racovita, RC; Chirila, A; Deaconu, D; Feroiu, V; Secuianu, C., Phase behaviour calculations for the carbon dioxide+1,2-dimethoxyethane binary system with a cubic equation of state, *STUDIA UNIVERSITATIS BABES-BOLYAI CHEMIA*, 64(3), 129-142, 2019, ISI Q4

7. **Sima, S.**; Ionita, S.; Secuianu, C.; Feroiu, V.; Geana, D., High-pressure phase equilibria of carbon dioxide+1-octanol binary system, *JOURNAL OF CHEMICAL AND ENGINEERING DATA*, 63(4), 1109-1122, 2018, ISI Q2.

8. **Sima, S.**, Secuianu, C.*, Feroiu, V., Phase equilibria of CO₂+1,2-dimethoxyethane at high pressures, *Fluid Phase Equilib.* 458, 47-57, 2018, ISI Q1.

9. **Sima, S.**, Racovita, R. C., Dinca, C., Feroiu, V., Secuianu, C.*, Phase equilibria calculations for carbon dioxide + 2-propanol system, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science* 79 (4), 11-24, 2017, ISI Q4.

10. **Sima, S.**, Milaneseo, J.M., Ramello, J.I., Cismondi, M., Secuianu, C.*, Feroiu, V., Geană, D., The effect of the naphthenic ring on the VLE of (carbon dioxide plus alkane) mixtures, *J. Chem. Thermodyn.* 93, 374-385, 2016, ISI Q1.
11. Crișciuc, A., **Sima, S.**, Deaconu, A.-S., Chirilă, A., Deaconu, D., Secuianu, C.*, Feroiu, V., Modelling of the carbon dioxide + cyclohexane binary system with cubic equations of state, *Rev. Chim.-Bucharest* 67 (10), 1984-1989, 2016, ISI Q3.
12. Simion, C., Gherase, D., **Sima, S.**, Simion, A. M., Serendipitous synthesis of a cyclic formamidine. Application to the synthesis of polyazamacrocycles, *C. R. Chimie*, **18 (6)**, 2015, 611-613, ISSN: 1631-0748, IF 2015: 1.713, SRI 2014: 0.306, DOI: 10.1016/j.crci.2014.12.006;

**D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți
(neindexate)**

- Reviste

1.

- Selecție cu maximum 20 lucrări în volume de conferințe

1. **Sergiu Sima**, Adrian Crișciuc, Catinca Secuianu, Dan Vladimir Nichita; Validation of a new high-pressures apparatus for determining clathrate hydrates; 23rd Romanian International Conference on Chemistry and Chemical Engineering, Constanta - Mamaia, ROMANIA, September 4 – 7, 2024
2. **Sergiu Sima**, Mihaela Ioniță, Adrian Crișciuc, Catinca Secuianu, *Experimental methods for investigating phase equilibria of clathrate hydrates*, 22nd Romanian International Conference on Chemistry & Chemical Engineering, September 7-9, 2022, Sinaia, Romania.
3. **Sergiu Sima**, Andreea C. Varzaru, Radu C. Racovita, Viorel Feroiu, Catinca Secuianu, *Phase equilibria in systems of CO₂ and esters*, 21st Romanian International Conference on Chemistry and Chemical Engineering - RICCCE 21, 4-7 September 2019, Constanta – Mamaia, Romania
4. **Sergiu Sima**, Adrian Crișciuc, Oana Ciocîrlan, Cristian Dincă, Catinca Secuianu*, Viorel Feroiu, *Phase Behaviour for Binary Systems Containing CO₂ at High Pressures of Interest for Carbon Capture and Storage*, 20th Romanian International Conference on Chemistry & Chemical Engineering – RICCCE 20, 6-9 September 2017, Poiana Brasov, Romania (poster).
5. **Sergiu Sima**, George Rizea, Catinca Secuianu*, Viorel Feroiu, *Phase Equilibria of CO₂ + 1,2-Dimethoxyethane at High-Pressures*, in 29th European Symposium on Applied Thermodynamics – ESAT 2017, 18-21 May, 2017, Bucharest, Romania, Book of abstracts p. 32 (oral communication).
6. **Sergiu Sima**, Adrian Crișciuc, Catinca Secuianu, Viorel Feroiu, Dan Geană, *Phase Equilibria of Butanol Isomers in Supercritical Carbon Dioxide*, 14th International Conference on Properties and Phase Equilibria for Product and Process Design – PPEPPD 2016, May 22-26, Porto, Portugal (poster).
7. **Sergiu Sima**, Catinca Secuianu, Viorel Feroiu, Dan Geană, *Critical Behaviour of CO₂ + Cyclopentane Binary Mixture*, 19th Romanian International Conference on Chemistry & Chemical Engineering – RICCCE 19, Sibiu, Romania, September 2-5, 2015 (poster).
8. **Sergiu Sima**, Raluca Toma, Adrian Crișciuc, Catinca Secuianu, *The Relationship Between Some Physicochemical Parameters and Quality of Fish*, 19th Romanian International Conference on Chemistry & Chemical Engineering – RICCCE 19, Sibiu, Romania, September 2-5, 2015 (poster).

9. **Sergiu Sima**, Bogdan Homescu, Monica Adriana Radu, Adrian Crişciu, Catinca Secuianu, Viorel Feroiu, *Physico-Chemical Properties of Essential and Food Oils*, 19th Romanian International Conference on Chemistry & Chemical Engineering – RICCCE 19, Sibiu, Romania, September 2-5, 2015 (poster).

E. Brevete obținute în întreaga activitate

1.