

**UNIVERSITATEA PETROL-GAZE DIN PLOIESTI
FACULTATEA DE TEHNOLOGIA PETROLULUI ȘI PETROCHIMIE
DEPARTAMENTUL DE CHIMIE**

Concurs pentru ocuparea postului de Conferentiar universitar, poziția 6

Candidat: Sef lucrări dr.chim. Călin Cătălina

LISTA DE LUCRĂRI

I. Teza doctorat

Impactul produselor de protecție a plantelor asupra calității strugurilor și vinului, Ploiești, 2013.

II. Lucrări cotate ISI

A. Articole publicate în reviste indexate ISI

1.**Calin C.**, Leostean C., Trifoi Ancuta, Oprescu E.-E, Wiita E, Banu I., Mutual inhibition effect of sulfur compounds in the hydrodesulfurization of thiophene, 2-ethylthiophene and benzothiophene ternary mixture, **Scientific Reports**, 11(1), p. 19053, Decembrie 2021.

2.Oprescu, E.-E., Enascuta C.-E., Doukeh, R., **Calin, C.**, Lavric, V., Characterizing and using a new bi-functional catalyst to sustainably synthesize methyl levulinate from biomass carbohydrates, **Renewable Energy**, 176, p. 651-662, 2021.

3.Doukeh, R., Bombos, D., Bombos, M., Oprescu, E.-E., Dumitrascu, G., Vasilievici, G., **Calin, C.** Catalytic hydrotreating of bio-oil and evaluation of main noxious emissions of gaseous phase, **Scientific Reports**, 11(1), p. 6179, 2021.

4.Bombos, M., Oprescu, E.E., **Calin, C.**, Vasilievici, G., Velea, S., Bombos, D. Slow pyrolysis of biomass in acidic or metallic catalysis, **Revista de Chimie**, 70(9), p.3148-3151, 2019.

5.Georgescu, V., Bombos, M., **Calin, C.**, Bombos, D, Physico - Chemical and Morphologic Structural Characterization of the Red Mud Obtained in the Romanian Alumina Plant, **Revista de Chimie**, 70(2), p. 565-570, 2019.

6.Grigoriu, N., **Calin, C.**, Scaeteanu, GV., Madjar, RM., Lungu, RM., Epure, G., Monitoring the breakdown of Dinocap in spiked soil, wine and grape samples by GC/MS and FTIR/ATR, **Environmental Engineering and Management Journal**, 17(9), p. 2179-2188, 2018.

7. Emanuela C.E., Stepan E., Bolocan I., Bombos D., **Calin C.**, Oprescu E.-E., Vasile L., Simultaneous production of oil enriched in ω -3 polyunsaturated fatty acids and biodiesel from fish wastes, **Waste Management**, 75, p.205-214, 2018.
8. Ilie, L., Mihalache, M., Madjar, RM., **Calin, C.**, Scaeteanu, GV., Effect of Sewage Sludge Amended Soil on Maize Crop I. Influence on yield and mineral nutrition, **Revista de Chimie**, 69(3), p. 561-566, 2018.
9. Radu, E., Oprescu, E.-E., Enascuta, C.E., **Calin, C.**, Stoica, R., Scaeteanu, G.V., Vasilievici, G., Capra, L., Ivan, G., Ion, A.C., Kinetic adsorption of humic acids mixture obtained from microalgae on exfoliated graphite nanoplatelets, **Revista de Chimie**, 69(1), p. 191-195, 2018,
10. **Calin, C.**, Scaeteanu, GV., Madjar, RM., Cangea, O., Influence of Applied Phytosanitary Treatments and Climatic Crop Year on Zinc Content in Wines from Tohani Vineyard, **Revista de Chimie**, 68(9), p. 2092-2097, 2017.
11. Neagu, M., Popovici, DR., Vijan, LE., **Calin, C.**, Adsorption of p-Cresol by Mesoporous Activated Carbon II. Mechanism studies and data modeling, **Revista de Chimie**, 68(3), p. 496-499, 2017.
12. Neagu, M., Popovici, DR., Dutescu, CM., **Calin, C.**, Adsorption of p-Cresol by Mesoporous Activated Carbon I. Kinetics studies and data modeling, **Revista de Chimie**, 68(1), p.139-142, , 2017.
13. Scaeteanu, GV., Madjar, RM., **Calin, C.**, Peticila, AG., Pantea, O., Impact of Soil Properties on Variability of Iron Content in Wines from Tohani Vineyard, **Revista de Chimie**, 67(9), p. 1751-1757, , 2016.
14. Mihai, O., **Calin, C.**, Marinescu, C., Natu, N., Pantea, O., Matei, D., The Adsorption Study of the Cyanides Using Solid Adsorbents, **Revista de Chimie**, 67(8), p. 1594-1598, 2016.
15. Cangea, O., **Calin, C.**, Popa, C., Pantea, O., Radu, E., Estimating the Selectivity Coefficient of Cl-ISE using Polynomial Regression, **Revista de Chimie**, 67(8), p. 1613-1617, 2016.
16. Bondarev, A., Pantea, O., Mihai, S., **Calin, C.**, Gheorghe, CG., Removal of Cadmium from Aqueous Solutions Using Low Cost Sorbents, **Revista de Chimie**, 67(4), p. 728-733, 2016.
17. Radu E., Stoica, R., **Calin, C.**, Oprescu E.-E., Bolocan, I., Ion, I., Ion, C.A, Validation of a RP-HPLC-UV method for the determination of bisphenol a at low levels in natural mineral water, **Revista de Chimie**, 67(2), p. 236-240, 2016.

- 18.Peticila, AG., Madjar, R., Scaeteanu, GV., **Calin, C.**, Rooting Evaluation for Green Cuttings at Actinidia Sp under Rhizogene Hormonal Treatments, **ROMANIAN BIOTECHNOLOGICAL LETTERS**, 21(1), p. 11160-11165, 2016.
- 19.Nicolescu, F., Lupu, F., Pantea, O., Gheorghe, CG., Bondarev, A., **Calin, C.**, Toxicity Study of Benzene, Toluene and Xylene (BTX) at Exposure on Some Experimental Groups, **Revista de Chimie**, 66(8), p. 1181-1183, 2015.
- 20.Mihalache, M., Ilie, L., Madjar, RM., **Calin, C.**, Scaeteanu, GV., .Effect of Sewage Sludge Amended Soil on Mineral Nutrition and Metal Accumulation on Sunflower Crop, **Revista de Chimie**, 66(7), p. 951-957, 2015.
- 21.Stancu, A., **Calin, C.**, Pantea, O., Ene, C., Identification of Correlations Between Chemical Substances and Sensory Characteristics of Feteasca Alba via Bravais-Pearson Coefficient, **Revista de Chimie**, 66(6), p. 778-783, 2015.
- 22.Grigore, E., Pantea, O., Bombos, D., **Calin, C.**, Bondarev, A., Gheorghe, C., Effect of Inhibitors based Amine Derivates on Some Carbon Steel Corrosion, **Revista de Chimie**, 66(5), p. 685-690, 2015.
- 23.Ilie, L., Scaeteanu, GV., Mihalache, M., Madjar, RM., **Calin, C.**, Assessment of Metal Contents in Soil after Sewage Sludge Treatments Associated or not with Mineral Fertilization, **Revista de Chimie**, 65(12), p. 1485-1489, 2014.
- 24.Madjar, RM., Scaeteanu, GV., Mihalache, M., **Calin, C.**, Dan, VS., Peticila, A., Nutrition Intensity in Ternary Diagrams Interpretation for Some Ornamental Species Cultivated on Organic Substrate with Increased Biological Activity, **NOTULAE BOTANICAE HORTI AGROBOTANICI CLUJ-NAPOCA**, 42(2), p. 573-578, 2014.
- 25.Calin, C.**, Scaeteanu, G., Pantea, O., Ilie, L., Bondarev, A., Mihai, S., .Influence of Dithiocarbamates used for Phytosanitary Treatments on the Microelement Contents from Vineyard Soil in Tohani Region of Romania, **Revista de Chimie**, 65(4), p. 497-501, 2014.
- 26.Lupu, F., Gheorghe, CG., Pantea, O., **Calin, C.**, Biotreatment of the Oil Pollutants, **Revista de Chimie**, 64(2), p.210-212, 2013.
- 27.Calin, C.**, Scaeteanu, G., Pele, M., Ilie, L., Pantea, O., Bombos, D., Assessment of Copper Content in Wines from Tohani-Dealul Mare by Flame Atomic Absorption Spectrometry, **Revista de Chimie**, 63(10), p. 1062-1064, 2012.

28.Calin, C., Vasile, G., Bombos, D., Pele, M., Lupu, F., Modification of Macronutrients and Copper Content from Soil Before and After P Phytosanitary Treatments in Vineyard from Tohani-Dealul Mare, **Revista de Chimie** 62(10), p. 1042-1045, 2011.

B. Articole publicate la conferințe indexate ISI/BDI

1. Oprescu, E.-E., Enascuta, C.E., Vasilievici, G., **Calin, C.**, Popa, C., Lavric, V., Conversion of biomass under heterogeneous catalyst into levulinic esters (**Conference Paper**), International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, Albena; Bulgaria, Volume 19, Issue 4.1, Pages 107-114; **2019**;

III. Participare la conferințe naționale și internaționale

A. Lucrări prezentate sub formă de poster (publicate sub formă de rezumat)

1. Bombos M., Bombos D., Valea S., Vasilievici G., Enascuta C.-E., Calin C., Oprescu E.-E., Catalytic pyrolysis of biogas digestate, ECCE12 & ECAB5 Congress, 15-18 september, Florence, Italy, **2019**;

2. Bombos Dorin, Calin Catalina, Velea Sanda, Bombos Mihaela, Enascuta Cristina-Emanuela, Vasilievici Gabriel, Oprescu Elena-Emilia, "Stabilization of the biogas digestate suspension for optimal processing", Simpozionul International, PRIOCHEM XIV, 10-12.10.2018, Bucuresti, Romania;

3. Oprescu E.-E., Calin C., Bombos M., Vasilievici G., Enascuta C.E., Velea S., Bombos D., "The pyrolysis of biogas digestate in order to obtain biochar and biofuel", 7Th EuCheMS Chemistry Congress, 26-30.08.2018, Liverpool, United Kingdom;

4. G.Vasile Scăețeanu, R.M.Madjar and **C.Călin**, Metal levels in wine between toxicity and beneficial effects on human health, International Conference on New Research in Agri-food and Tourism BIOATLAS **2014**, Brasov-Romania;

5. R.M.Madjar, G.Vasile Scaeteanu, **C.Calin**, *Perspective on human exposure to pesticides and their metabolites in different media*, International Conference on New Research in Agri-food and Tourism BIOATLAS **2014**, Brasov-Romania;

6. Elena Grigore, Octav Pânte, Dorin Bomboș and **Catalina Călin**, *Corrosion and corrosion control of OL37 steel in Cl⁻ and S²⁻ solutions by different corrosion inhibitors*, International Conference of Physical Chemistry ROMPHYSICHEM 15, September 11-13, **2013**, Bucharest-Romania;

7. S.Mihai, O.Pantea, A.Bondarev, **Cătălina Călin**, *Synthesis of gold nanoparticles using Schiff base*, **Nobelgrade Conference** , 26-28 sept., Belgrade, Serbia, **2012**;

8. G.Scăețeanu, **Cătălina Călin**, L. Ilie, M. Pele, O. Pânte, *Manganese content in wine samples from Tohani-Dealul Mare*, International Conference on New Research in Agri-food and Tourism BIOATLAS **2012**, Brasov-Romania

9. **Cătălina Călin**, G. Vasile, O.Pantea, A. Bondarev, S. Mihai, *The influence of dithiocarbamates used for phytosanitary treatments of vineyard on the microelements contents from soil*, 15th International Biodeterioration & Biodegradation Symposium, September 19 – 24, Viena, Austria, **2011**.

10. **Cătălina Călin**, G. Vasile, O. Pânte, M. Pele, M. Artimon, *The variation of microelements content from soil influenced by phytosanitary treatments applied to vineyard*, 2nd edition of International Conference "**Science and Technology in the Context of Sustainable Development**", Petroleum-Gas University of Ploiești, November 4 -5, **2010**

11. C. Ciuculescu, G. Epure, P. Pușcasu, O. Oprisor, M. Potorac, **Cătălina Călin**, *Metoda de separare și identificare a benzilatului de chinuclidinil prin HPLC cu detecție UV-VIS*, a XXX-a Sesiune de Comunicări Științifice a agenției de Cercetare pentru Tehnica și Tehnologii Militare, București, **1998**;

B. Lucrări prezentate sub formă de poster și publicate in extenso în volumele conferințelor (B+)

1. D. Bombos, **C. Calin**, S. Velea, M. Bombos, R. Doukeh, G. Vasilievici, E.-E. Oprescu, *Bio-Fluxing Agent for Bitumen Road Based on Pyrolysis Bio-Oil*, Proceedings **2019**, 29, 108; doi:10.3390/proceedings2019029108;

2. Oprescu E.-E., C. E. Enascuta, Stepan E., E. Radu, **C. Calin**, Radu A., Vasile Scaeteanu G., Madjar R. M., „The importance of humic substances in agricultural systems”,

International Conference AGRI-FOOD **2017** “AGRICULTURE AND FOOD FOR THE XXI CENTURY”, p.110-117 ;

3. R.M.Madjar, G.Vasile Scaeteanu, **C.Calin**, *Perspective on human exposure to pesticides and their metabolites in different media*, *Journal of EcoAgriTourism* vol.10, nr.1(28), p.118, **2014**, ISSN 1844-8577, cotate B (cod CNCSIS 910), indexat în Cab Abstracts, Global Health.

4. G.Vasile Scăețeanu, R.M.Madjar and **C.Călin**, *Metal levels in wine between toxicity and beneficial effects on human health*, *Journal of EcoAgriTourism*, vol.10, nr.1(28), p.109, **2014**, ISSN 1844-8577, cotate B (cod CNCSIS 910), indexat în Cab Abstracts, Global Health.

5. G.Scăețeanu, **Cătălina Călin**, L. Ilie, M. Pele, O. Pântea, *Manganese content in wine samples from Tohani-Dealul Mare*, *Journal of EcoAgriTourism- Bulletin of Agri-Ecology, Agri-Food, Bioengineering and Agriturism*, 8, 1(24), p.227, **2012**;

C. Lucrări sub formă de prezentari orale (publicate sub formă de rezumat)

1. The study of extracted humic matter from biomass, Oprescu Elena-Emilia, **Călin Cătălina**, Cristea Steliana, Mihai Oana, 2nd International Colloquium Energy and Environmental Protection 9-11 November **2016**, Ploiești-România;

2. An overview of copper accumulation in vineyard soils and wine, **Călin Cătălina**, Madjar Roxana Maria, Scăețeanu Vasile Gina, Oprescu Emilia-Elena, 2nd International Colloquium Energy and Environmental Protection 9-11 November **2016**, Ploiești-România;

3. G. Vasile Scăețeanu, R. M. Madjar, **C. Călin**, A. Peticilă, *Good Agricultural Practices Minimize the Risks of Environmental Pollution*, 1st International Colloquium Energy and Environmental Protection 20-21 November **2014**, Ploiești-România;

4. E. Grigore, O. Pântea, **C. Călin**, S. Mihai, A. Bondarev, *Corrosion behaviour of OL37 in sulphurous wastewater*, 1st International Colloquium Energy and Environmental Protection 20-21 November **2014**, Ploiești-România;

5. **C. Călin**, O. Pântea, G. Vasile Scăețeanu, R. M. Madjar, N. Grigoriu, *Environmental pollution associated with application of metal-based phytosanitary products*, 1st International Colloquium Energy and Environmental Protection 20-21 November 2014, Ploiești-România;

6. E. Oprescu, D. Bomboș, S. Cristea, C. Călin, E. Stepan, I. Bolocan, *Glycerol acetal ester as biofuel additive*, 1st International Colloquium Energy and Environmental Protection 20-21 November **2014**, Ploiești-România;

IV. Alte publicatii

1. Octav Pantea, **Catalina Calin**, Fundamentele analizei chimice si instrumentale. Soluții si echilibre chimice, Editura Universitatii Petrol-Gaze din Ploiesti, 2018.

V. Activități de cercetare pe bază de contract

1. 14/08.06.2015, Caracterizarea fizico-chimică a condensatului de la sondele de extracție a gazelor, S.C. Stratuu Energy România LLC Wilmington, Sucursala Blejoi-**membru**
2. 33/17.11.2015, Analiza cantitativa a unor probe de cenusa grea rezultata din procesul tehnologic al cazanului de abur nr. 4 din cadrul CET-2, prin analiza de absorbtie atomica si analiza gravimetrica, in vederea determinarii continutului de CaSO₄, S.C.Lukoil Energy & Gas Romania S.R.L. Ploiesti- **Director de contract**
3. Proiect de cercetare PN III CI nr. 8701/23.08.2018- “ Chelatizanti pentru micronutrienti pe baza de resurse regenerabile (NUTRIL) “, beneficiar UEFISCDI- **Responsabil proiect**
4. PN III, 2622/2018, Creșterea eficienței energetice a instalațiilor de biogaz prin elaborarea sistemului integrat: biogaz-microalge-biocombustibili, în cadrul conceptului de biorafinare” acronim (AlgalBiogazConcept – Energie) ABC-ENERGIE, UEFISCDI- **membru**

VI. Brevete si cereri de brevete

1. Bombos D., Bombos M. , **Calin C.**, Oprescu E.-E., Velea S, Vasilievici G., Catalizator bifunctional pe baza de Cu-Pd / WO₃ - Nb₂O₅ si procedeu de hidrotratare a bio-uleiului de piroliza pe acesta”/Osim, Nr. A00782/25.11.2020
2. Bombos D., Bombos M. , **Calin C.**, Oprescu E.-E., Velea S, Vasilievici G.,Catalizator bifunctional pe baza de Ni-Pt / MoO₃ - SnO₂ si procedeu de hidrocracare a bio-uleiului de piroliza”/Osim, Nr. A00780/25.11.2020.
3. Velea S., Bombos M., Doukeh R., Vasilievici G., Bombos D., Oprescu E.-E., **Calin C.**, "Catalizator pe baza de Mo și procedeu de piroliză lentă a biomasei pe acest catalizator”/Osim, Nr. 819/29.11.2019.
4. **Calin Catalina**, Bombos Dorin, Oprescu Emilia, SC Atica Chemicals SRL „Procedeu de obtinere a acizilor humici- RO134216 (A2)