

LISTA DE LUCRĂRI

I. Lucrări cotate ISI

A. Articole publicate în reviste indexate ISI

1. **Călin, C.**, Sîrbu, E.-E., Tănase, M., György, R., Popovici, D.R., Banu, I., A Thermogravimetric Analysis of Biomass Conversion to Biochar: Experimental and Kinetic Modeling, **Applied Sciences**, **2024**, 14; <https://doi.org/10.3390/app14219856>;
2. Sîrbu EE, Dinita, A., Tanase, M., Portoaca, A., Bondarev A., Enascuta C.E., **Calin C.**, Influence of Plasticizers Concentration on Thermal, Mechanical, and Physicochemical Properties on Starch Films, **Processes**. **2024**, 12(9), 2021; <https://doi.org/10.3390/pr12092021>;
3. Madjar R.M., **Călin C.**, (Vasile) Scățețeanu G., Sîrbu E-E., Grigoriu N., Metal Chelator Effect Of Glyphosate Application In Soil On Micronutrients Availability, **AgroLife Scientific Journal** - Volume 13, Number 1, **2024**;
4. **Calin C.**, Dinita, A., Branoiu, G., Popovici DR., Tanase, M., Sirbu, EE., Portoaca, A., Mihai S., Assessment of Environmental Impact of Glass-Fiber-Reinforced Polymer Pipes Mechanical and Thermal Properties, **POLYMERS**, 16(13), p. 1779, **2024**;
5. Portoaca, A., Dinita, A., Tanase, M., Savulescu, A., Sirbu, EE., **Calin, C.**, Branoiu, G., Analyzing Sustainable 3D Printing Processes: Mechanical, Thermal, and Crystallographic Insights, **POLYMERS**, 16(10), p. 1364, **2024**;
6. Mihai, S., Bondarev, A., **Calin, C.**, Sirbu, EE., Adsorbent Biomaterials Based on Natural Clays and Orange Peel Waste for the Removal of Anionic Dyes from Water, **PROCESSES**, 12(5), p.1032, **2024**;
7. Gheorghe, V., Gheorghe, CG., Popovici, DR., Mihai, S., **Calin, C.**, Sarbu, EE., Doukeh, R., Grigoriu, N., Toader, CN., Epure, C., Matei, V., Synthesis, Purity Check, Hydrolysis and Removal of o-Chlorobenzyliden Malononitrile (CBM) by Biological Selective Media, **TOXICS**, 11(8), p. 672, **2023**;

8. Bondarev, A., Popovici, DR., **Calin, C.**, Mihai, S., Sîrbu, EE., Doukeh, R., Black Tea Waste as Green Adsorbent for Nitrate Removal from Aqueous Solutions, **MATERIALS**, 16(12), p.4285, **2023**;
9. **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, **2021**;
10. 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**;
11. 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**;
12. 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**; WOS:000489958900012, FI = 1.755;
13. 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**; WOS:000461982200041, FI = 1.755;
14. 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**;
15. 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**;
16. 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**; WOS:000430946500006, FI = 1.605;
17. 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**; WOS:000425369600040, FI= 1.605;

18. **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**; WOS:000416748800031, FI = 1.412;
19. 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**; WOS:000400731900015, FI = 1.412;
20. 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), p139-142, **2017**; WOS:000395499200030, FI = 1.412;
21. 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**; WOS:000385266600021, FI = 1.232;
22. 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**; WOS:000384514200040, FI = 1.232;
23. 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**; WOS:000384514200043, FI = 1.232;
24. 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**; WOS:000376549200029, FI = 1.232;
25. 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**; WOS:000372170700007, FI = 1.232;
26. 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**; WOS:000371434300010, FI = 0.396;
27. 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**; WOS:000361124600022, FI = 0.956;

28. 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**; WOS:000359179900007, FI = 0.956;
29. 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**; WOS:000357403600005, FI = 0.956;
30. 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**; WOS:000355126000018, FI = 0.956;
31. 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**; WOS:000345946400018, FI = 0.81;
32. 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**;
33. **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**; WOS:000338605100023, FI = 0.81;
34. Lupu, F., Gheorghe, CG., Pantea, O., **Calin, C.**, Biotreatment of the Oil Pollutants, **Revista de Chimie**, 64(2), p.210-212, **2013**; WOS:000315756400021, FI = 0.677;
35. **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**; WOS:000311927200018, FI = 0,538;
36. **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**;WOS :000296933300018, FI = 0,599;

B. Articole publicate la conferințe indexate ISI

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**;

C. Articole BDI

1. M. Mihalache, L. Ilie, G. (Vasile) Scaeteanu, **C. Calin**, R. M. Madjar, Impacts of Using Mineral Fertilization Combined with Sewage Sludge in the Amendment of Luvisol on Oat Crop.II. Influence on Metal Accumulation, Revista de Chimie, 71 (5), 2020, 363-372;

2. L. Ilie, M. Mihalache, R. M. Madjar, **C. Calin**, G. (Vasile) Scaeteanu, Impacts of Using Mineral Fertilization Combined with Sewage Sludge in the Amendment of Luvisol on Oat Crop I. Influence on Yield and Mineral Nutrition, Revista de Chimie (Rev. Chim.), Year 2020, Volume 71, Issue 4, 119-127;

II. Participare la conferințe naționale și internaționale

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

1. **Catalina Calin**, Daniela Roxana Popovici, Cristina Maria Dutescu Vasile, Elena-Emilia Sirbu, Conversion of Food Waste Into Bioadsorbent, 9th EuChemS Chemistry Congress, Dublin, Ireland, July 7-11, **2024**;

2. 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**;

3. 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, **2018**;

4. 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., Liverpool, United Kingdom, **2018**;
5. 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, Brasov-Romania, **2014**;
6. 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, Brasov-Romania, **2014**;
7. Elena Grigore, Octav Pântea, Dorin Bomboș and **Catalina Călin**, Corrosion and corrosion control of OL37 steel in Cl^- and S^{2-} solutions by different corrosion inhibitors, International Conference of Physical Chemistry ROMPHYSICHEM 15, September 11-13, Bucharest-Romania; **2013**;
8. S.Mihai, O.Pantea, A.Bondarev, **Cătălina Călin**, Synthesis of gold nanoparticles using Schiff base, **Nobelgrade Conference** , 26-28 sept., Belgrade, Serbia, **2012**;
9. G.Scăețeanu, **Cătălina Călin**, L. Ilie, M. Pele, O. Pântea, Manganese content in wine samples from Tohani-Dealul Mare, International Conference on New Research in Agri-food and Tourism BIOATLAS, Brasov-Romania, **2012**;
10. **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**;
11. **Cătălina Călin**, G. Vasile, O. Pântea, 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**;
12. C. Ciuculescu, G. Epure, P. Pușcasu, O. Oprisor, M. Potorac, **Cătălina Călin**, Metoda de separare și identificare a benzilatulului 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. Popescu Mihaela Alexandra, Elena-Emilia Sirbu, **Catalina Calin**, Cristina Popa, Cristina Emanuela Enascuta, PHOSPHATE REMOVAL ON BIOCHAR, SGEM, Bulgaria, Mai **2024**;
2. Enascuta, C.-E.; Oprescu, E.-E., **Calin, C.**, Vasilievici, G., Popa, C., ADSORPTION OF NITRATE ON MAGNETIC MICROALGAL BIOCHAR, Volume 22, Issue 6.1, Pages 57 - 642022 22nd International Multidisciplinary Scientific Geoconference: Nano, Bio, Green and Space - Technologies for a Sustainable Future, SGEM Albena 4 July 2022 through 10 July 2022 Code 187361, **2022**;
3. 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, 29, 108; doi:10.3390/proceedings2019029108, **2019**;
4. 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 “AGRICULTURE AND FOOD FOR THE XXI CENTURY”, p.110-117, **2017**;
5. 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, cotat B (cod CNCSIS 910), indexat în Cab Abstracts, Global Health.
6. 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, cotat B (cod CNCSIS 910), indexat în Cab Abstracts, Global Health.
7. 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, <http://tppconferinte.upg-ploiesti.ro/>

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, <http://tppconferinte.upg-ploiesti.ro/>;

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, <http://tppconferinte.upg-ploiesti.ro/>;

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, <http://tppconferinte.upg-ploiesti.ro/>;

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, <http://tppconferinte.upg-ploiesti.ro/>;

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, <http://tppconferinte.upg-ploiesti.ro/>;

III. Alte publicatii

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

IV. Activități de cercetare pe bază de contract

1. 10841/06.06.2023, Cercetari privind obtinerea unor parametri tehnici ai biomaterialului care face obiectul brevetului A202300003-06.01.2023, beneficiar CAHM Europe SA- **Director de contract**;

2. Proiect de cercetare, GO-GISC-9249/15.05.2023, Energie din deșeuri alimentare -EDA, beneficiar UPG-Ploiești, **membru**;

3. 375/390051/30.09.2021-Competitia:63/POC/163/1/3/LDR, Dezvoltarea de ambalaje alimentare inovative fără impact negativ asupra mediului ambiant - AMBAL-INOV, My SMIS: 120994-**membru**;

4. Proiect de cercetare PN III CI nr. 8701/23.08.2018- “ Chelatizanti pentru micronutrienti pe baza de resurse regenerabile (NUTRIL) “, beneficiar UEFISCDI- **Responsabil proiect;**
5. PN III, 2622/2018, Cresterea eficientei energetice a instalatiilor de biogaz prin elaborarea sistemului integrat: biogaz-microalge-biocombustibili, in cadrul conceptului de biorafinare” acronim (AlgalBiogazConcept – Energie) ABC-ENERGIE, UEFISCDI- **membru;**
6. 14/08.06.2015, Caracterizarea fizico-chimica a condensatului de la sondele de extractie a gazelor, S.C. Stratuu Energy Romania LLC Wilmington, Sucursala Blejoi-**membru;**
7. 33/17.11.2015, Analiza cantitativa a unor probe de cenuşa grea rezultată din procesul tehnologic al cazanului de abur nr. 4 din cadrul CET-2, prin analiza de absorbtie atomica si analiza gravimetrică, in vederea determinării conținutului de CaSO₄, S.C.Lukoil Energy & Gas Romania S.R.L. Ploiesti- **Director de contract;**
8. 26/31.07.2014, Conversia deşeurilor de biomasa in derivaţi ai furanului, in scopul utilizării ca biocarburanţi (CARFURAL), UEFISCDI- **membru;**

V. Brevete si cereri de brevete

1. Bombos D., Bombos M., **Calin C.**, Oprescu E.-E., Velea S, Vasilevici G., Catalizator bifunctional pe baza de Cu-Pd / WO₃ - Nb₂O₅ si procedeu de hidrotratatare 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, Vasilevici 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., Vasilevici G., Bombos D., Oprescu E.-E., **Calin C.**, "Catalizator pe baza de Mo si procedeu de piroliza lenta a biomasei pe acest catalizator”/Osim, Nr. 819/29.11.2019-brevet;
4. **Calin Catalina**, Bombos Dorin, Oprescu Emilia, SC Atica Chemicals SRL „Procedeu de obtinere a acizilor humici- RO134216 (A2).