MEMORIU ȘTIINȚIFIC

Drd. Ing. Suzana Ioana STĂNCESCU (CALCAN)

Studii de doctorat

Perioada: 2020-2025

Conducător științific: Prof. Dr. Ing. Oana Cristina PÂRVULESCU

Domeniu: Inginerie Chimică

Titlul tezei de doctorat: VALORIFICAREA REZIDUURILOR AGRO-INDUSTRIALE PRIN PIROLIZĂ

Activitate științifică

A. Lista de lucrări științifice (articole în reviste sau volume)

1. **Calcan, S.I.**, Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Bădulescu, L., Madjar, R., Dobre, T., Egri, D., Moț, A., Iliescu, L.M., Jerca, I.O. *„Effects of biochar on soil properties and tomato growth”*. Agronomy, 12(8), art. no. 1824, WOS:000846311700001, 2022.
2. **Calcan, S.I.**, Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Bădulescu, L., Dobre, T., Egri, D., Moț, A., Popa, V., Crăciun, M.E. *„Valorization of vine prunings by slow pyrolysis in a fixed-bed reactor”*. Processes, 10(1), art. no. 37, WOS:000757674900001, 2022.
3. Ion, V.A., Moț, A., Popa, V.I., **Calcan, S.**, Bădulescu, L., Jerca, I.O., Baniţă, C., Pârvulescu, O.C. *„Physicochemical characterisation of vine waste used for producing biochar”*. Sci. Papers Ser. B Hortic., LXV(2), 268–273, WOS:000756054100036, 2021.
4. **Calcan, S.I.**, Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Dobre, T., Vasilievici, G., Burghelea, A. *„Vine residue-derived engineered biochar for environmental benefits”*. U.P.B. Sci. Bull. Series B, 87(3), 135–148, ISSN 141-2331, 2025.
5. Egri, D., Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., **Calcan, S.I.**, Bădulescu, L., Madjar, R., Orbeci, C., Dobre, T., Moț, A., Iliescu, L.M., Crăciun, M.E.,*„Vine pruning-derived biochar for agronomic benefits”*. Agronomy, 12(11), art. no. 2730, 2022.
6. Popovici, V., Bucur, L., **Calcan, S.I.**, Cucolea, E.I., Costache, T., Rambu, D., Schroder, V., Gîrd, C.E., Gherghel, D., Vochita, G., D., Caraiane, A., Badea, V. *„Elemental analysis and in vitro evaluation of antibacterial and antifungal activities of Usnea barbata (L.) Weber F.H. Wigg from Călimani Mountains, Romania”*. Plants, 11(1), art. no. 32, 2022.
7. Popovici, V., Bucur, L., Gîrd, C.E., **Calcan, S.I.**, Cucolea, E.I., Costache, T., Rambu, D., Ungureanu-Iuga, M., Oroian, M., Mironeasa, S., Schroder, V., Ozon, E.A., Caraiane, A., Badea, V. *„Advances in the characterization of Usnea barbata (L.) Weber F.H. Wigg from Călimani Mountains, Romania”*. Applied Sciences, 12(9), art. no. 4234, 2022.
8. Popovici, V., Bucur, L., Gîrd, C.E., Rambu, D., **Calcan, S.I.**, Cucolea, E.I., Costache, T., Ungureanu-Iuga, M., Oroian, M., Mironeasa, S., Schroder, V., Ozon, E.A., Lupuliasa, D., Caraiane, A., Badea, V. *„Antioxidant, cytotoxic, and rheological properties of canola oil extract of Usnea barbata (L.) Weber F.H. Wigg from Călimani Mountains, Romania”*. Plants, 11(7), art. no. 854, 2022.
9. Popovici, V., Bucur, L., Vochita, G., Gherghel, D., Mihai, C.T., Rambu, D., **Calcan, S.I.**, Costache, T., Cucolea, E.I., Matei, E., Badea, F.C., Caraiane, A., Badea, V. *„In vitro anticancer activity and oxidative stress biomarkers status determined by Usnea barbata (L.) F.H. Wigg dry extracts”*. Antioxidants, 10(7), art, no. 1141, 2021.

B. Participări la conferințe/workshop-uri

1. **Calcan, S.I.**, Răducanu, C.E., Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Egri, D., Dobre, T. *Valorisation of vine branches by slow pyrolysis*. 16th International Conference of Constructive Design and Technological Optimization in Machine Building Field (OPROTEH), 25-27 May 2021, Bacau, Romania (P).
2. Ion, V.A., Mot, A., Popa, V.I., **Calcan, S.I.**, Bădulescu, L., Jerca, O., Banita, C., Pârvulescu, O.C. (2021) *Physicochemical characterisation of vine waste used for producing biochar*. International Conference "Agriculture for Life, Life for Agriculture", 4-6 June 2021, Bucharest, Romania (P).
3. Ion, V.A., Pârvulescu, O.C., Moț, A., Popa, V.I., **Calcan, S.I.,** Răducanu, C.E., Bădulescu, L., Grigoraș, C. (2021) *Valorization of greenhouse biomass waste using pyrolysis*. International Conference "Intelligent Valorisation of Agro-Industrial Wastes (INTELWASTES)", 7-8 October 2021, Chisinau, Republic of Moldova (P).
4. **Calcan, S.I.**, Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Bădulescu, L., Roxana Madjar, R., Dobre, T., Egri, D., Moț, A., Iliescu, L.M., Jerca, I.O. *Production of biochar and its use as an amendment for acidic soils*. 17th International Conference of Constructive Design and Technological Optimization in Machine Building Field (OPROTEH), 25-27 May 2022, Bacau, Romania (P).
5. Ion, V.A., Moț, A., Popa, V.I., **Calcan, S.I.,** Bădulescu, L., Marin, S.M., Răducanu, C.E., Pârvulescu, O.C. *Pyrolysis of grape marc waste for producing biochar*. International Conference "Agriculture for Life, Life for Agriculture", 2-4 June 2022, Bucharest, Romania (P).
6. Pârvulescu, O.C., Ion, V.A., Răducanu, C.E., Egri, D., **Calcan, S.I.,** Orbeci, C., Dobre, T., Madjar, R., Bădulescu, L., Moț, A., Iliescu, L.M. *Effects of biochar on soil properties and pepper growth*. 22nd Romanian International Conference on Chemistry and Chemical Engineering (RICCCE 22), 7-9 September 2022, Sinaia, Romania (P).
7. Răducanu, C.E., Pârvulescu, O.C., Ion, V.A., Dobre, T., Burghelea, A., Negrea, A., **Calcan, S.I.,** Egri, D. *Engineered biochar for environmental benefits*. 22nd Romanian International Conference on Chemistry and Chemical Engineering (RICCCE 22), 7-9 September 2022, Sinaia, Romania (P).
8. Egri, D., Pârvulescu, O.C., Ion, V.A., Bădulescu, L., **Calcan, S.I.**, Dobre, T., Răducanu, C.E., Mocanu, A., Løes, A.K., Cabell, J., Salifoglou, A., Maroulis, M., Matsia, S., Letelier-Gordo, C.O., Carboni, F.M. *Biochar amendment applied to improve crop growth and yield*. International Chemical Engineering and Material Symposium (SICHEM), 17-18 November 2022, Bucharest, Romania (P).
9. Popovici, V., Bucur, L., Gîrd, C.E., Rambu, D., **Calcan, S.I.,** Cucolea, E.I., Costache, T., Ungureanu-Iuga, M., Oroian, M., Mironeasa, S., Schroder, V., Ozon, E.A., Lupuliasa, D., Caraiane,

A., Badea, V. *Valorization of autochthonous lichen Usnea barbata (L.) to obtain an enriched canola oil extract*. Conference Sustainable Food: Trends and Opportunities, online workshop, October 2023 (O).

10. Popovici, V., Bucur, L., **Calcan, S.I**., Gîrd, C.E., Ozon, E.A., Musuc, A.M., Morosan, E., Surdu, I. *Elemental analysis and heavy metals content of Usnea barbata (L.) Weber F.H. Wigg from Călimani Mountains*. 10th International Conference ESPERA, 23-24 November 2023 (P).
11. **Calcan S.I.,** Pârvulescu O.C., Ion V.A., Dobre T. *Effects of biochar derived from vine residues on plant growth*. 20th International Conference of Constructive Design and Technological Optimization in Machine Building Field (OPROTEH), 21-23 May 2025, Bacau, Romania (O).

A. Proiecte de cercetare științifică

1. Proiect **372 PED BIOCHAR (Cărbune pirolitic din deșeuri vegetale modificat în beneficiul agronomiei și mediului).**

Perioada: 2020-2022

Coordonator: Universitatea Naţională de Ştiinţă și Tehnologie POLITEHNICA Bucureşti

Director de proiect: Oana Cristina PÂRVULESCU

Partener: Universitatea de Științe Agronomice și Medicină Veterinară București (USAMV).

Student-doctorand

.....