

Si4Crop: REPORT ON SCIENTIFIC PUBLICATIONS

Two scientific papers were published in scientific journals ranked M21 and one was submitted to scientific journal ranked M21a.

Nine publications in conferences were published in books of abstracts from two international scientific conferences. Poster presentation "**Potential of carbon bio-sequestration by wheat phytoliths in Vojvodina**" by Tijana Dubljanin was awarded as **BEST POSTER AWARD**.

List of publication in scientific journals:

Published:

1. Savic, J., Pavlovic, J., Milos Stanojevic, M., Bosnic, P., Kostic Kravljanac, Lj., Nikolic, N., and Nikolic, M. 2023. "**Silicon Differently Affects Apoplastic Binding of Excess Boron in Wheat and Sunflower Leaves**" *Plants* 12, no. 8: 1660. <https://doi.org/10.3390/plants12081660> M21, IF 4.0
2. Kravljanac, L.K., Pavlovic, J., Bosnic, P., Kostic, I., Trailovic, M., Dubljanin, T., and Nikolic, M. **Ammonium nutrition enhances rhizosphere mobilization and uptake of silicon in white lupin grown in low phosphorus soil**. *Plant Soil* (2024). <https://doi.org/10.1007/s11104-024-06982-3> M21 IF 3.9

Submitted:

1. Pavlovic, J., Kostic Kravljanac, Lj., Bosnic, D., Maksimovic, V., Dubljanin, T., Hernandez-Apaolaza, L., Trailovic, M., Nikolic, M. **Silicon enhances carboxylate-mediated zinc (Zn) utilization and antioxidant responses in rice under Zn-limiting conditions** was submitted to *Plant Physiology and Biochemistry (PPB)*. Journal ranked M21a, IF 6.1.

List of publications in conferences:

1. Carballo-Méndez F. J., Bosnic P., Bosnic D., Nikolic N., Kostic-Kravljanac Lj., Stanojevic M., Nikolic M. Length of Si-priming modulates the ameliorative effect of Si on oxidative enzymes in wheat under salinity stress; 8th International Conference on Silicon in Agriculture; May 23-26, 2022; New Orleans, Louisiana, USA.
2. Kostic Kravljanac Lj., Trailovic M., Pavlovic J., Nikolic M. Effect of N-forms on Silicon Mobilization in the Rhizosphere of White Lupin; 8th International Conference on Silicon in Agriculture; May 23-26, 2022; New Orleans, Louisiana, USA.
3. Trailovic M., Kostic Kravljanac LJ., Stanojevic M., Pavlovic J., Nikolic M. Phosphorus Deficiency Induced Silicon Mobilization in Grapevine Rhizosphere: A Field Study; 8th International Conference on Silicon in Agriculture; May 23-26, 2022; New Orleans, Louisiana, USA.4
4. Pavlovic J., Hernandez-Apaolaza L., Dubljanin T., Nikolic M. Silicon Enhances the Biosynthesis of Organic Acids in Zinc-deficient Rice.th International Conference on Silicon in Agriculture; May 23-26, 2022; New Orleans, Louisiana, USA.
5. Kostic I., Milenkovic I., Nikolic N., Milanovic S., Kostic Kravljanac LJ., Bosnic P., Paravinja A., Miroslav Nikolic M. Silicon Changes Root Phenomics and Leaf Ionomics in Oak under Phytophthora Infection and Low Phosphorus Conditions; 8th International Conference on Silicon in Agriculture; May 23-26, 2022; New Orleans, Louisiana, USA.
6. Pavlović J, Kostić Kravljanac L, Bosnić P, Kostić I, Trailović M, Dubljanin T, Radović M and Nikolić M. *First evidence of silicon transport via phloem in plants: A germanium tracer study in cucumber*. 5th International Conference on Plant Biology (24th SPPS Meeting) , 3–5 October 2024, Srebrno jezero, Serbia. Book of abstracts pp.4-16
7. Kostić Kravljanac Lj, Pavlović J, Bosnić P, Kostić I, Trailović M, Dubljanin T, A Paravinja A and Nikolić M. *Root Exudates Mobilize Silicon (Si) from Different Soil Si-Pools*. 5th International Conference on Plant Biology (24th SPPS Meeting), 3–5 October 2024, Srebrno jezero, Serbia pp. 4-19
8. Dubljanin T, Pavlović J, Kostić Kravljanac Lj, Bosnić P, Kostić I, Trailović M, Paravinja A, Stanojević M and Nikolić M. *Potential of carbon bio-sequestration by wheat phytoliths in Vojvodina*. 5th International Conference on Plant Biology (24th SPPS Meeting), 3–5 October 2024, Srebrno jezero, Serbia pp 1-6. **Awarded as best poster**
9. Trailović M, Kostić Kravljanac Lj, Stanojević M, Radović M, Bosnić P, Pavlović J, Kostić I, Todić S and Nikolić M. *Low phosphorus conditions promote mobilization of silicon in the grapevine rhizosphere*. 5th International Conference on Plant Biology (24th SPPS Meeting)3–5 October 2024, Srebrno jezero, Serbia pp. 2-5