

**Sylwester Smoleń, dr hab., prof. UR, Associate professor**



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**Consultation hours: Monday 12.00-14.00**

**Research interest:**

- biofortification of plants in iodine and selenium using agrotechnical methods such as soil fertilization, application to nutrient in hydroponics and foliar application,
- plant nutrition,
- hydroponics cultivation.

**Research experience:**

**Visiting Scholar:** April 2016 year. Trip in the "Erazmus + Program Teaching Staff mobility, academic training - Slovak University of Agriculture in Nitra.

**DSc, (Habilitation)** (2014, "Agrochemical methods of iodine biofortification of carrot (*Daucus carota* L.). A new perspective of iodine-rich food".)

**PhD** (2006, "Effect of diversified nitrogen fertilisation and foliar feeding on nutritional and biological value of carrot".)

**Professional profiles:**

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**Scopus Author ID:** Scopus Author ID: 24475912500

**Research Gate:** [https://www.researchgate.net/profile/Sylwester\\_Smolen](https://www.researchgate.net/profile/Sylwester_Smolen)

**Publons:** <https://publons.com/researcher/1365644/sylwester-smolen/>

**Scholar Google:** <https://scholar.google.pl/citations?user=ipiy7GwAAAAJ&hl=en>

List of publications:

1. **Smoleń S.**, Wierzbińska J., Sady W., Kołton A., Wiszniewska A., Liszka-Skoczylas M. 2015. Iodine biofortification with additional application of salicylic acid affects yield and selected parameters of chemical composition of tomato fruits (*Solanum lycopersicum* L.). *Scientia Horticulturae* 188: 89-96. <http://dx.doi.org/10.1016/j.scienta.2015.03.023>
2. **Smoleń S.**, Ledwożyw-Smoleń I., Sady W. 2016. The role of exogenous humic and fulvic acids in iodine biofortification in spinach (*Spinacia oleracea* L.). *Plant and Soil*, 402: 129-143. doi: 10.1007/s11104-015-2785-x.
3. **Smoleń S.**, Skoczylas Ł., Ledwożyw-Smoleń I., Rakoczy R., Kopeć A., Piątkowska E., Bieżanowska-Kopeć R., Koronowicz A., Kapusta-Duch J. 2016. Biofortification of carrot (*Daucus carota* L.) with iodine and selenium in a field experiment. *Frontiers in Plant Science*, 7:730. doi: 10.3389/fpls.2016.00730
4. **Smoleń S.**, Kowalska I., Czernicka M., Halka M., Kęska K., Sady W. 2016. Iodine and selenium biofortification with additional application of salicylic acid affects yield, selected molecular parameters and chemical composition of lettuce plants (*Lactuca sativa* L. var. *capitata*). *Front. Plant Sci.* 7:1553. doi: 10.3389/fpls.2016.01553
5. **Smoleń S.**, Ledwożyw-Smoleń I., Halka M., Sady W., Kováčik P. 2017. The absorption of iodine from 5-iodosalicylic acid by hydroponically grown lettuce. *Scientia Horticulturae*, 225 (2017) 716–725.
6. **Smoleń S.**, Kowalska I., Skoczylas Ł., Liszka-Skoczylas M., Grzanka M., Halka M., Sady W. 2018. The effect of salicylic acid on biofortification with iodine and selenium and the quality of potato cultivated in the NFT system. *Scientia Horticulturae*, 240, 530-543.
7. Halka M., **Smoleń S.**, Czernicka M., Klimek-Chodacka M., Pitala J., Tutaj K. 2019. Iodine biofortification through expression of HMT, SAMT and S3H genes in *Solanum lycopersicum* L. *Plant Physiology and Biochemistry*, 144, 35-48. DOI:10.1016/j.plaphy.2019.09.028
8. **Smoleń S.**, Kowalska I., Kováčik P., Halka M., Sady W. 2019. Biofortification of six varieties of lettuce (*Lactuca sativa* L.) with iodine and selenium in combination with the application of salicylic acid. *Front. Plant Sci.* 10:143. ss. 1-13. doi: 10.3389/fpls.2019.00143
9. **Smoleń S.**, Baranski R., Ledwożyw-Smoleń I., Skoczylas Ł., Sady W. 2019. Combined biofortification of carrot with iodine and selenium. *Food Chemistry* 300 (2019) 125202: 1-8. <https://doi.org/10.1016/j.foodchem.2019.125202>
10. **Smoleń S.**; Kowalska, I.; Halka, M.; Ledwożyw-Smoleń, I.; Grzanka, M.; Skoczylas, Ł.; Czernicka, M.; Pitala, J. 2020. Selected aspects of iodate and iodosalicylate metabolism in lettuce including the activity of vanadium dependent haloperoxidases as affected by exogenous vanadium. *Agronomy* 2020, 10, 1.: 1-21 doi:10.3390/agronomy10010001