Dear Editor of the Periodicum biologorum,

Please find enclosed our manuscript: “Yellow deposits formation in roots is a part of plant phenotype under sulfur deficiency”, by Grzegorz Moniuszko and Katarzyna Zientara-Rytter, and consider it for the publication in Periodicum biologorum as a short communication. All co-authors have seen and agreed with the contents of the manuscript and there is no competing interests to report. We certify that the submission is original work and is not under consideration for publication elsewhere. All authors concur with the submission.

In the manuscript we show the new tobacco plants phenotype during their response to sulfur (S) deficit. We demonstrate that few days after transfer onto medium without S supply, the roots change color to yellow. Microscopic observation determined that formation of yellow deposits inside the root epidermis cells is responsible for such visual effect. Moreover, we performed experiments that narrow down the list of possible compounds of such deposits. We found differences in amount of UV-absorbing compounds (UVAC) as the main reason of observed color differences. In discussion, our results, combined with the data available in literature, point to the phenolic compounds as the most probable group of UVAC in our case.

We believe our findings would appeal to the readership of Periodicum biologorum. We hope that the editorial board and the reviewers will agree on the interest of this study.

Sincerely yours,

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