Ivan Plyushchenko

PhD, postdoctoral research fellow

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Education

2011-17 Specialist in Chemistry (equivalent to MSc) Lomonosov Moscow State University
Moscow, Russia

2017-21 Postgraduate academic and pedagogical training (Chemistry) Lomonosov Moscow State University
Moscow, Russia

2017-22 Doctor of Philosophy (Chemistry) Lomonosov Moscow State University
Moscow, Russia

Grants and awards

2017 MSACL EU 2017 Travel Grant Salzburg, Austria

2018 IMSC 2018 Fellowship Florence, Italy

2019 MSACL EU 2019 Travel Grant Salzburg, Austria

Professional Certificates

2017 Metabolomics 202: Approaches, Applications and Challenges MSACL EU 2017
16 hrs

2018 Introduction to R Course DataCamp
n/a

2018 R Basics - R Programming Language Introduction Udemy
4 hrs

2019 Data Science 201: Going Further With R: Tackling Clinical Laboratory Data Manipulation and Modeling MSACL EU 2017
16 hrs

2019 Introduction to programming in R Dataquest
n/a

2019 Intermediate R programming Dataquest
n/a

2019 Data visualization in R Dataquest
n/a

2019 Data analyst in R Dataquest
n/a

2019 Data cleaning in R Dataquest
n/a

Publications

1. Bolotnik, T., Plyushchenko, I., Smolenkov, A., Pirogov, A., Popik, M., & Shpigun, O. (2018). Identification of spillages of semi-volatile hydrocarbon fuels in soils by gas chromatography–mass spectrometry. *Journal of Analytical Chemistry*, *73*(6), 570–575.
2. Bolotnik, T., Timchenko, Y. V., Plyushchenko, I., Levkina, V., Pirogov, A., Smolenkov, A., Popik, M., & Shpigun, O. (2019). Use of chemometric methods of data analysis for the identification and typification of petroleum and petroleum products. *Journal of Analytical Chemistry*, *74*(13), 1336–1340.
3. Plyushchenko, I., Shakhmatov, D., Bolotnik, T., Baygildiev, T., Nesterenko, P. N., & Rodin, I. (2020). An approach for feature selection with data modelling in LC-MS metabolomics. *Analytical Methods*, *12*(28), 3582–3591.
4. Plyushchenko, I., Shakhmatov, D., & Rodin, I. (2021). Algorithm of combining chromatography–mass spectrometry untargeted profiling and multivariate analysis for identification of marker substances in samples of complex composition. *Inorganic Materials*, *57*(14), 1397–1403.

5. Kulikova, N., Zhelezova, A., Voropanov, M., Filippova, O., Plyushchenko, I., & Rodin, I. (2020). Monoammonium phosphate effects on glyphosate in soils: Mobilization, phytotoxicity, and alteration of the microbial community. *Eurasian Soil Science*, *53*(6), 787–797.

6. Kulikova, N., Zhelezova, A., Filippova, O., Plyushchenko, I., & Rodin, I. (2020). The degradation of glyphosate and its effect on the microbial community of agro-sod–podzolic soil under short-term model experiment conditions. *Moscow University Soil Science Bulletin*, *75*(3), 138–145.

7. Vokuev, M., Baygildiev, T., Plyushchenko, I., Ikhalaynen, Y., Ogorodnikov, R., Solontsov, I., Braun, A., Savelieva, E., Rybalchenko, I., & Rodin, I. (2021). Untargeted and targeted analysis of sarin poisoning biomarkers in rat urine by liquid chromatography and tandem mass spectrometry. *Analytical and Bioanalytical Chemistry*, *413*(28), 6973–6985.

8. Plyushchenko, I. V., Fedorova, E. S., Potoldykova, N. V., Polyakovskiy, K. A., Glukhov, A. I., & Rodin, I. A. (2021). Omics untargeted key script: R-based software toolbox for untargeted metabolomics with bladder cancer biomarkers discovery case study. *Journal of Proteome Research*, *21*(3), 833–847.

9. Burkin, M. A., Galvidis, I. A., Surovoy, Y. A., Plyushchenko, I. V., Rodin, I. A., & Tsarenko, S. V. (2021). Development of ELISA formats for polymyxin b monitoring in serum of critically ill patients. *Journal of Pharmaceutical and Biomedical Analysis*, *204*, 114275.

10. Voinova, V. V., Selivanov, N. A., Plyushchenko, I. V., Vokuev, M. F., Bykov, A. Y., Klyukin, I. N., Novikov, A. S., Zhdanov, A. P., Grigoriev, M. S., Rodin, I. A.others. (2021). Fused 1, 2-diboraoxazoles based on closo-decaborate anion–novel members of diboroheterocycle class. *Molecules*, *26*(1), 248.

11. Fedorova, E. S., Matyushin, D. D., Plyushchenko, I. V., Stavrianidi, A. N., & Buryak, A. K. (2022). Deep learning for retention time prediction in reversed-phase liquid chromatography. *Journal of Chromatography A*, *1664*, 462792.