

Department of Analytical Biotechnology: Publications 2019

1. **Патент України** А201702216 “Флуорометричний ензиматично-хімічний метод одночасного визначення вмісту L-аргініну та L-цитруліну в крові” / Стасюк Н.Є., Гайда Г.З., Фаюра Л.Р., Сибірний А.А., Гончар М.В.; МПК G01N21 (2006.1) G01N 33/52 (2006.01). Подано 09.03.2017. Опубл. 10.09.2018, бюл. №17.
2. Zakalskiy A., Stasyuk N., Gonchar M. Creatinine Deiminase: Characterization, Using in Enzymatic Creatinine Assay, and Production of the Enzyme // **Current Protein & Peptide Science** – 2019. - V. 20, N 5. - P. 465-470 (**IF = 2.696**). DOI: [10.2174/1389203720666181114111731](https://doi.org/10.2174/1389203720666181114111731).
3. Gayda G.Z., Demkiv O.M., Stasyuk N.Ye., Serkiz R.Y., Gonchar M.V., Nisnevitch M. Metallic nanoparticles obtained *via* “green” synthesis as a platform for biosensor construction // **Appl. Sci.** – 2019. – V.9. – P. 720-735. DOI: 10.3390/app9040720 (**IF=2.217**).
4. Kavetsky T., Smutok O., Demkiv O., Kasetaitė S., Ostrauskaite J., Švajdlenková H., Šauša O., Zubrytska K., Hoivanovych N., Gonchar M. Dependence of operational parameters of laccase-based biosensors on structure of photocross-linked polymers as holding matrixes // **European Polymer Journal.** – 2019. – V. 115. – P. 391-398 (**IF = 3.621**). <https://doi.org/10.1016/j.eurpolymj.2019.03.056>.
5. Kavetsky T.S., Stasyuk N., Smutok O.V., Demkiv O., Kukhazh Y., Hoivanovych N., Boev V.I., Ilcheva V.G., Petkova T., Gonchar M. Improvement of amperometric laccase biosensor using enzyme-immobilized gold nanoparticles coupling with ureasil polymer as a host matrix // **Gold Bulletin.** – 2019. – V. 52. – P. 79-85 (**IF = 2.279**). DOI: [10.1007/s13404-019-00255-z](https://doi.org/10.1007/s13404-019-00255-z).
6. Smutok O., Karkovska M., Prokopiv T., Kavetsky T., Sibirnyj W., Gonchar M. D-lactate-selective amperometric biosensor based on the mitochondrial fraction of *Ogataea (Hansenula) polymorpha* recombinant cells // **Yeast.** – 2019. – V. 36, N 5. – P. 341-348 (**IF = 2.395**). DOI: [10.1002/yea.3372](https://doi.org/10.1002/yea.3372).
7. Stasyuk N.Ye., Gayda G.Z., Zakalskiy A.E., Zakalska O.M., Serkiz R.Y., Gonchar M.V. Amperometric biosensors based on oxidases and Pt/Ru nanoparticles as artificial peroxidase // **Food Chemistry.** – 2019. – V. 285. – P. 213-220 (**IF = 5.399**). <https://doi.org/10.1016/j.foodchem.2019.01.117>.
8. Shkotova L., Bohush A., Voloshina I., Smutok O., Dzyadevych S. Amperometric biosensor modified with platinum and palladium nanoparticles for detection of lactate concentrations in wine // **SN Applied Sciences.** – 2019. – V. 1: 306. <https://doi.org/10.1007/s42452-019-0315-9>.
9. Gayda G., Stasyuk N., Klepach H., Gonchar M., Nisnevitch M. Promising Bioanalytical Approaches to Wine Analysis // In Book: **Quality Control in the Beverage Industry** (Eds. Grumezescu A.M. and Holban A.M.). - Vol.17: The Science of Beverages, Woodhead Publishing, Elsevier, Duxford, UK, Cambridge, USA, 2019. – Ch. 12. - P. 419-458. ISBN 978-0-12-816681-9.
10. Gayda G.Z., Demkiv O.M., Klepach H.M., Gonchar M.V., Nisnevitch M. Effective Technologies for Isolating Yeast Oxido-Reductases of Analytical Importance // In Book: **Non-conventional Yeasts: from Basic Research to Application** (Ed. A.

- Sibirny). - Springer Nature Switzerland AG, 2019. – P. 119-151. ISBN 978-3-030-21109-7; <https://doi.org/10.1007/978-3-030-21110-3>.
11. Demkiv O., Smutok O., Kavetsky T., Banah S., Kukhazh Y., Zubrytska K., Klepach H., Gonchar M. Laccase as a Perspective Tool for Monitoring and Detoxification of Phenolic Environmental Pollutions // In Book: **Human Health: Realities and Prospects**. Monographic series. Volume 4. "Health and Biosensors" (Eds. N. Skotna, S. Voloshanska, T. Kavetsky, O. Smutok, M. Gonchar). - Drohobych: Posvit, 2019, pp. 21-34.
 12. Kavetsky T., Kukhazh Y., Zubrytska K., Starchevsky M., Šauša O., Švajdlenková H., Smutok O., Demkiv O., Gonchar M. Novel Polymer Matrixes for Construction of Laccase-Based Amperometric Biosensors as Probed by Positrons and Swelling // In Book: **Human Health: Realities and Prospects**. Monographic series. Volume 4. "Health and Biosensors" (Eds. N. Skotna, S. Voloshanska, T. Kavetsky, O. Smutok, M. Gonchar). - Drohobych: Posvit, 2019, pp. 45-56.
 13. Smutok O., Kavetsky T., Kukhazh Y., Zubrytska K., Kravtsiv M., Mushynska O., Nykolaishyn-Dytso O., Serkiz R., Voloshanska S., Gonchar M. Non-Invasive L-lactate Analysis of Human Liquids Using a Third Generation Biosensor Based on Gold Nanolayer and Flavocytochrome b2 // In Book: **Human Health: Realities and Prospects**. Monographic series. Volume 4. "Health and Biosensors" (Eds. N. Skotna, S. Voloshanska, T. Kavetsky, O. Smutok, M. Gonchar). - Drohobych: Posvit, 2019, pp. 8-20.
 14. Stasyuk N., Gayda G., Smutok O., Zakalskiy A., Zakalska O., Gonchar M. Amperometric Detection of Manganese Ions Using Recombinant APO-arginase // In Book: **Human Health: Realities and Prospects**. Monographic series. Volume 4. "Health and Biosensors" (Eds. N. Skotna, S. Voloshanska, T. Kavetsky, O. Smutok, M. Gonchar). - Drohobych: Posvit, 2019, pp. 35-44.
 15. Демків О. М., Стасюк Н.Є., Закальський А.Є., Закальська О.М., Прокопів Т.М., Борецький Ю.Р., Гончар М.В. Скринінг цвілевих грибів на здатність до синтезу креатиніндеїмінази // **Вісник Львів. Ун-ту.** – 2019. – Вип. 81. – С.15.
 16. Kavetsky T.S., Kukhazh Y.Y., Zubrytska K.V., Khalilov R.I., Smutok O.V., Demkiv O.M., Šauša O., Švajdlenková H., Gonchar M.V. Construction of amperometric laccase-based biosensors using the ureasil and photocross-linked polymers // **Advances in Biology & Earth Sciences.** - 2019. - V.4, No.3. - P. 137-149.