

Department of Analytical Biotechnology: Publications 2022

1. Stasyuk N.Ye., Gayda G.Z., Zakalskiy A.E., Fayura L.R., Zakalska O.M., Sibirny A.A., Nisnevitch M., Gonchar M.V. Amperometric biosensors for L-arginine and creatinine assay based on recombinant deiminases and ammonium-sensitive Cu/Zn(Hg) S nanoparticles // **Talanta**. – 2022. – V. 238 (1), 122996, <https://doi.org/10.1016/j.talanta.2021.122996>. (IF=6.057). Q1.
2. Stasyuk N., Demkiv O., Gayda G., Zakalskiy A., Klepach H., Bisko N., Gonchar M., Nisnevitch M. Highly Porous 3D Gold Enhances Sensitivity of Amperometric Biosensors Based on Oxidases and CuCe Nanoparticles // **Biosensors**. - 2022. - V. 12. - P. 472. <https://doi.org/10.3390/bios12070472> (IF = 5.743) Q2
3. Stasyuk N., Demkiv O., Gayda G., Serkiz R., Zakalskiy A., Zakalska O., Klepach H., Al-Maali G., Bisko N., Gonchar M. Highly Sensitive Amperometric Biosensors Based on Oxidases and CuCe Nanoparticles Coupled with Porous Gold // **Eng. Proc.** - 2022. – V. 16, No 1. - P. 1-8. <https://doi.org/10.3390/IECB2022-12251>.
4. Stasyuk N.Ye., Gayda G.Z., Zakalskiy A.E., Fayura L.R., Zakalska O.M., Sibirny A.A., Nisnevitch M., Gonchar M.V. Amperometric biosensors for L-arginine and creatinine assay based on recombinant deiminases and ammonium-sensitive Cu/Zn(Hg)S nanoparticles // **Talanta**. - 2022. - V. 238, No 1. - P. 122996. (IF 6.057). <https://doi.org/10.1016/j.talanta.2021.122996>. Q1
5. Gayda G., Stasyuk N., Zakalskiy A., Gonchar M., Katz E. Arginine-hydrolyzing enzymes for electrochemical biosensors // **Current Opin. Electrochem.** - 2022. - V. 33. - P. 100941. <https://doi.org/10.1016/j.coelec.2022.100941> (IF = 7.271). Q1
6. Demkiv O., Gayda G., Stasyuk N., Brahinetz O., Gonchar M., Nisnevitch M. Nanomaterials as Redox Mediators in Laccase-Based Amperometric Biosensors for Catechol Assay // **Biosensors**. - 2022. - V. 12. - P. 41. <https://doi.org/10.3390/bios12090741>. (IF = 5.743). Q2
7. Stasyuk N., Demkiv O., Gayda G., Zakalska O., Zakalskiy A., Serkiz R., Kavetsky T., Gonchar M. Reusable alcohol oxidase–nPtCu/alginate beads for highly sensitive ethanol assay in beverages // **RSC Adv.** - 2022. – V. 12, No 33. - P. 21309-21317. <https://doi.org/10.1039/D2RA02106D>. (IF = 4.04). Q1
8. Kavetsky T., Smutok O., Demkiv O., Kukhazh Yu., Stasyuk N., Leonenko E., Kiv A., Kobayashi Yo., Kinomura A., Šauša O., Gonchar M., Katz E. Improvement of laccase biosensor characteristics using sulfur-doped TiO₂ nanoparticles // **Bioelectrochemistry**. – 2022. - Oct; 147:108215. Epub 2022 Jul 25. [doi: 10.1016/j.bioelechem.2022.108215](https://doi.org/10.1016/j.bioelechem.2022.108215). (IF=5.373). Q2
9. Goździuk M., Kavetsky T., Roquero D.M., Smutok O., Gonchar M., Kráľovič D.P., Švajdlénková H., Šauša O., Kalinay P., Nosrati H., Lebedevaite M., Grauzeliene S., Ostrauskaite J., Kiv A., Zgardzińska B. UV-cured green polymers for biosensors: correlation of operational parameters of highly sensitive biosensors with nano-

volumes and adsorption properties // **Materials**. – 2022. - Sep 23;15(19):6607. [DOI: 10.3390/ma15196607](https://doi.org/10.3390/ma15196607) (IF=3.601). Q2.

10. Демків О. М., Стасюк Н. Є., Гайда Г. З., Гринчишин Н. М., Новікевич О. Т., Демчук О. Г., Гончар М. В. Новий спектрофотометричний метод за використання лакказних нанозимів для аналізу адреналіну в фармацевтичних препаратах // **Наук. Вісник ЛНУ ветеринарної медицини та біотехнологій**. Серія: Ветеринарні науки. - 2022. - Т. 24, № 106. - С. 142-148.

11. Smutok O., Kavetsky T., Prokopiv T., Serkiz R., Šauša O., Novák I., Švajdlenková H., Matko I., Gonchar M., Katz E. Biosensor based on peroxidase-mimetic nanozyme and lactate oxidase for accurate L-lactate analysis in beverages // **Biosensors**. – 2022 – 12(11) - 1042. [doi: 10.3390/bios12111042](https://doi.org/10.3390/bios12111042). (IF=5.373). Q2

12. Stasyuk N., Demkiv O., Gayda G., Zakalska O., Nogala W., Gonchar M. Amperometric biosensors based on alcohol oxidase and peroxidase-like nanozymes for ethanol determination // **Microchimica Acta**. – 2022. – 189 (12). – 474. [DOI: 10.1007/s00604-022-05568-z](https://doi.org/10.1007/s00604-022-05568-z). (IF=6.408). Q1

13. Stasyuk N., Gayda G., Kavetsky T., Gonchar M. Nanozymes with reductase-like activities: electrochemical and antioxidant properties // **RSC Advances**. – 2022. – V. 12. P. 2026–2035. [DOI: 10.1039/d1ra08127f](https://doi.org/10.1039/d1ra08127f). (IF=3.361). Q1.