BULLETIN OF NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN
ISSN 1991-3494
Volume 4, Number 368 (2017), 76 – 81

B. N. Mynbayeva[1], K. K. Musdybaeva[2], N. Voronova[3], B. K. Amirasheva[4], Zh. B. Kaldybayeva[1], A. Zh. Makeeva[1]

[1]Abai Kazakh National Pedagogical University, Almaty, Kazakhstan,
[2]MyrzakhmetovKokshetauUniversity, Kokshetau, Kazakhstan,
[3]Al-FarabiKazakh National University, Almaty, Kazakhstan,
[4]Institute of Microbiology and Virology, Almaty, Kazakhstan,
E-mail: bmynbayeva@gmail.com, mkk77@mail.ru, slovonine@mail.ru, bahitka_85@mail.ru, zhanar_161081@mail.ru, jibek6@mail.ru

ESTABLISHMENT AND APPLICATION OF BIOTECHNOLOGY IN PROTECTION OF KAZAKHSTAN ENVIRONMENT

Abstract. The biotechnologiesare fast developing spheres in the fields of medicine, agriculture, plant biological engineering in Kazakhstan. And also biotechnology is developing in the field of immunological and molecular genetic diagnosis, prevention of especially dangerous animal diseases, etc. The authors have attempted to show the development of biotechnological research in Kazakhstan, aimed at solving environmental problems.In particular, the developments in the protection of the environment of our country, contaminated with radionuclides, oil products, heavy metals, and so on. The examples of the indirect impact of the developed biotechnologies on the environment state are given in this article.The main research on this problem is produced by the National Centre of Biotechnology, Institute of Microbiology and Virology, some universities and research institutes mainly. At the same time, we can be concluded that biotechnology aimed directly at the environment's protection and preservation is developed separately. Generally they focused at the cleaning of the water or soils from heavy metals and petroleum products. For example, there are biological methods for the rehabilitation of the soils contaminated by oil and heavy metals. The low efficiency of biotechnologies in Kazakhstan environment protecting is due to the lack of the Coordination Centre in their development.Thus, the creation of highly efficient biotechnology in the environment protection and its degradation in Kazakhstan is the further prospect.

Keywords: highly efficient biotechnology, environment, Kazakhstan.

УДК 574: 504.062.2/4: 504.064.2

Б. Н. Мынбаева[1], К. К. Муздыбаева[2], Н. Воронова[3], Б. К. Амирашева[4], Ж. Б. Калдыбаева[1], А. Ж. Макеева[1]

[1]Казахский национальный педагогический университет им. Абая, Алматы,Казахстан,
[2]Кокшетауский университет им. А. Мырзахметова, Кокшетау, Казахстан,
[3]Казахский национальный университет им. аль-Фараби, Алматы,Казахстан,
[4]Институт микробиологии и вирусологии КН МОН РК, Алматы, Казахстан

СОЗДАНИЕ И ПРИМЕНЕНИЕ БИОТЕХНОЛОГИЙ В ЗАЩИТЕ ОКРУЖАЮЩЕЙ СРЕДЫ КАЗАХСТАНА

Аннотация. В Казахстане развиваются биотехнологии в областимедицины, сельского хозяйства, биологической инженерии растений. А также биотехнологии в области иммунологической и молекулярно-генетической диагностики, профилактики особо опасных болезней животных и др.Авторы статьи сделали попытку показать развитие биотехнологических разработок в Казахстане, направленных на решение экологических проблем. В частности, разработок в защите окружающей среды нашей страны, загрязненной радионуклидами, нефтепродуктами, тяжелыми металлами и пр. В статье приведены примеры косвенного влияния