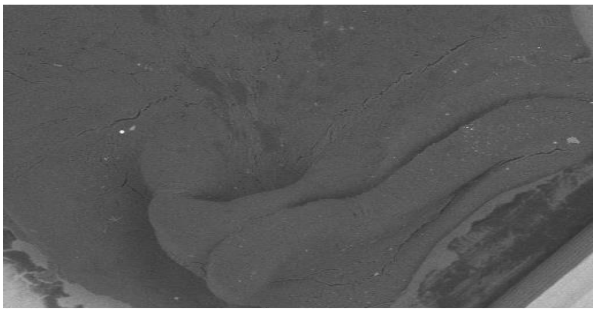
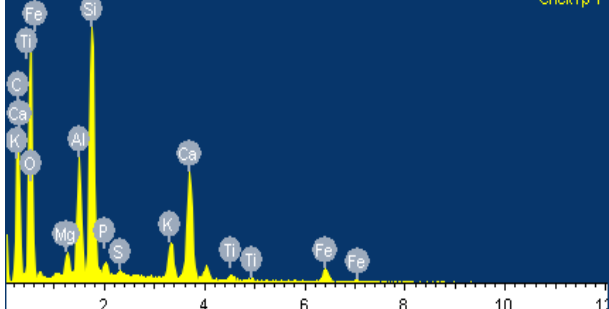
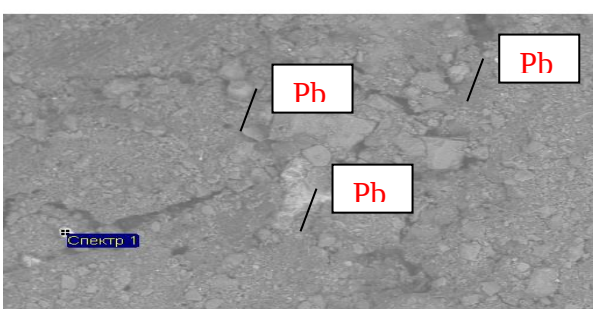
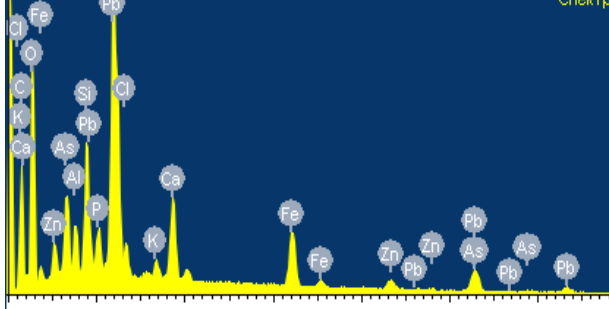


THE USE OF LUMBRICOFAUNA IN BIOINDICATION AND BIOREMEDIATION OF DISTURBED ECOSYSTEMS

Relevance of the problem: earthworms are one of the components of the soil ecosystem and play a serious role in the transformation of chemical elements. Due to the processing of organic substrates, lumbricofauna forms accessible forms of biogenic elements in the soil, thereby contributing to the creation of favorable conditions for the vital activity of the soil biocenosis. There are a number of studies devoted to the study of the effect of heavy metals on earthworms. The role of earthworms in the accumulation of copper, lead and zinc from polluted soils of tropical forests has been established.

The purpose of the research is to study the role of earthworms in bioindication and bioremediation of disturbed ecosystems.

	
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The results obtained:

1. The distribution of lumbricides in various types of soils of the Turkestan region has been studied;
2. It was revealed that 6 species of lumbricides live in the Turkestan region;
3. The role of earthworms in bioindication of oil-contaminated soils has been established;
4. As a result of ICP and REM analyses, the accumulation of lead and cadmium ions in the tissues of earthworms was established.

5. A method has been developed for biotesting the level of soil contamination with heavy metal ions and petroleum products.



Head: Doctor of Biological Sciences, Professor Issayeva A.U.

Performers: Candidate of Technical Sciences, associate professor Kenzhalieva G., Dabylova Zh., Baibotaeva A.

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Commercialization of the results. The method of vermicomposting waste is recommended for use on farms and municipal wastewater treatment plants in Shymkent..

It comes from

Patent protection. There is 1 patent for the invention of the Republic of Kazakhstan.

N п/п	Name	Output data	Authors
1	Способ биотестирования токсичных концентраций нефтепродуктов и тяжелых металлов в почве.	Инновационный патент №23579 от 15.12.2010 бюл.12	Исаева А.У., Бишимбаев В.К., Кенжалиева Г.Д., Ембердиев А.Ж., Жаркимбеков С.У., Манапова Н.М.