

sorption actinides by natural sediment run up to - 98-99%. The sterilized sediment sorbs actinides too (34-38%). In this connection the sorption on natural sediment can be represented as two processes: physical-chemical sorption (the sorption by sterilized sediment) and biological sorption (difference between sorption by natural and sterilized sediments). We found, that in this conditions the biological sorption exceeds physical-chemical sorption in two times approximately: physical-chemical sorption of P-239 and Cm-244 - is equal to 34-38% and biological sorption of actinides - 62-66%. As for sterilized sediment, sorption of these actinides is equal to 34-38%.

#### Literature:

1. Till J.E. Source Terms for Tc-99 from Nuclear Fuel Cycle Facilities. In: Technetium in the Environment, 1986, p.1-20. Edited by G.Desmet, C.Myttenaere. Elsevier Applied Science Publishers London, New-York.
2. Pentreath R.J., Jefferies D.F., Lovett M.D., Nelson D.M. The behaviour of transuranic and other long-lived radionuclides in the Irish Sea and its relevance to the deep sea disposal of radioactive wastes. In: Marine Radioecology 3rd NEA Seminar. Paris Organisation for Economic Cooperation and Development, pp. 203-221.
3. Holm E., Rioseco J., Mattson S. Technetium-99 in the Baltic Sea. In: Technetium in the Environment, 1986. p.61-69. Edited by G.Desmet, C.Myttenaere. Elsevier Applied Science Publishers London, New-York.
4. Brown D.J. Migration characteristics of radionuclides through sediments underlying the Hanford Reservation. In Disposal of Radioactive Wastes into the Ground. 1967. Int.Atomic Energy Agency Symp. Vienna, Austria. USAES Symp. Ser., Conf. 670512. Natl. Tech. Inf. Serv., Springfield, Va.
5. Barci-Funel G., Ballestre S., Holm E., Lopez J., Ardisson G. Technetium-99 in the Rhone River Water. J.Radioanal.Nucl.Chem.Letters, 1991. V.153, N 6, p.431-438.
6. Milton G.M., Cornett R.J., Kramer S.J., Vezina A. The transfer of Iodine and Technetium from Surface Waters to Sediments. Radiochimica Acta, 1992. 58/59, p.291-296.
7. Blaylock B.G., Frank M.L., Hoffman F.O., DeAngelis D.L. Behaviour of Tc in Freshwater Environments. In: Technetium in Environment. 1986. Edited by G.Desmet, C.Myttenaere. Elsevier Applied Science Publishers. London, New-York.
8. Dubenjuk N.I. The role of geological structures of locality in development of environment pollution processes due to activity of "PO Majak" (in Rus.) In collection "Radioactive wastes. Problem and decisions". Bull. of II annual conference of Nuclear Society of Russia. Moscow, 1992, p.170-173.
9. Kuznecov Ju.V., Revenko Ju.A., Ledin V.K. The appraisal of contribution of river Enisej in general radioactive pollution of Karscoe Sea. J.Radiochemistry (in Rus.) 1994, V.36, N 6, p.546-560.
10. Tolley M.R., Macaskie L.E. Bioaccumulation of heavy metals: application to the decontamination of solution containing americium, plutonium and neptunium. Biohydrometallurgical Technologies. 1993. Edited by Torma A.E., Apel M.L. and Brierley C.L. The Minerals, Metals, Materials Society.