

- [4] I. N. Murodov, I. A. Tagayev, "The central Kysylkum phosphorites' origin character and conditions of determination of rare earth elements and uranium in them," *XVI Int. For. Topical issues of rational use of natural resources*, Vol. 1, Saint-Petersburg, Russia, pp. 250-251, 2020.
- [5] N.A. Doniyarov, I.A. Tagaev, I.N. Murodov, A.A. Asrorov, "Development of technology for obtaining phosphoric fertilizer of high quality, purified from ballistic impurities," *Mining Bulletin of Uzbekistan*, № 2 (77), pp. 68-70, Jun. 2019.
- [6] L. Botvinnik et al., "Recovery of uranium from Philippine wet phosphoric acid using D2EHPA-TOPO solvent extraction," *Philippine J. of Science*, Vol. 147, № 2, pp. 275-284, Jun. 2018.
- [7] Y. Hu et al., "Superior sorption capacities of Ca-Ti and Ca-Al bimetallic oxides for U(VI) from aqueous solutions," *Chem. Eng. J.*, Vol. 316, pp. 419-428, 15, May 2017. DOI: doi.org/10.1016/j.cej.2017.01.115.
- [8] J. Jin et al., "HNO₃ modified biochars for uranium (VI) removal from aqueous solution," *Bioresour. Technol.* 256, pp. 247-253, 07, Feb. 2018. DOI:doi.org/10.1016/j.biortech.2018.02.022.
- [9] Y. Sun et al., 2017. "Interaction of sulfonated graphene oxide with U(VI) studied by spectroscopic analysis and theoretical calculations," *Chem. Eng. J. Vol.* 310, Part 1, pp. 292-299, 15, Feb. 2017. DOI: doi.org/10.1016/j.cej.2016.10.122.
- [10] E. Bağda, M. Tuzen, A. Sari, "Equilibrium, thermodynamic and kinetic investigations for biosorption of uranium with green algae (*Cladophorahutchinsiae*)," *J. Environ. Radioact.*, Vol.175-176, pp. 7-14, Sep. 2017. DOI: doi.org/10.1016/j.jenvrad.2017.04.004.
- [11] S. Liu et al., "Recovery of uranium(VI) from aqueous solution by 2-picolylamine functionalized poly(styrene-co-maleic anhydride) resin," *J. Colloid Interface Sci.* Vol. 497, pp. 385-392, 1, Jul. 2017. DOI: doi.org/10.1016/j.jcis.2017.02.062.
- [12] D. Yang et al., "Rational design and synthesis of monodispersed hierarchical SiO₂@ layered double hydroxide nanocomposites for efficient removal of pollutants from aqueous solution," *Chem. Eng. J.* Vol. 323, pp. 143-152, 1, Sep. 2017. DOI: doi.org/10.1016/j.cej.2017.03.158.
- [13] F. Yuan et al., "Synthesis of phytic acid-decorated titanate nanotubes for high efficient and high selective removal of U(VI)," *Chem. Eng. J.* Vol. 322, pp. 353-365, 15, Aug. 2017. DOI: doi.org/10.1016/j.cej.2017.03.156.
- [14] S.T. Jadhav, "Sorption of uranium from alkaline waste onto radiation grafted phosphoryl-g- Teflon matrix," *J. Radioanal. Nucl. Chem. Vol.* 312, pp. 413-419, 31, Mar. 2017. DOI: doi.org/10.1007/s10967-017-5236-8.
- [15] F. Li et al., " Functionalized hydrothermal carbon derived from waste pomelo peel as solid-phase extractant for the removal of uranyl from aqueous solution," *Environ. Sci. Pollut. Res.* Vol. 24, pp. 1-11, 11, Aug. 2017. DOI: doi.org/10.1007/s11356-017-9829-0.
- [16] X. Zheng et al., "Effect of pH on uranium(VI) biosorption and biomineralization by *Saccharomyces cerevisiae*," *Chemosphere*, Vol. 203, pp. 109-116, Jul. 2018. DOI: doi.org/10.1016/j.chemosphere.2018.03.165.
- [17] H. Wen, Z. Pan, D. Giammar, L. Li, "Enhanced uranium immobilization by phosphate amendment under variable geochemical and flow conditions: insights from reactive transport modeling," *Environ. Sci. Technol.* Vol. 52, No. 10, pp. 5841-5850, 12, Apr. 2018, DOI: doi.org/10.1021/acs.est.7b05662.
- [18] J. Li et al., "Direct extraction of U(VI) from alkaline solution and seawater via anion exchange by metal-organic framework," *Chem. Eng. J.* Vol. 316, pp. 154-159, May 2017. DOI: doi.org/10.1016/j.cej.2017.01.046.
- [19] J. Li et al., "Metalorganic framework-based materials: superior adsorbents for the capture of toxic and radioactive metal ions," *Chem. Soc. Rev.* Vol. 47, pp. 2322-2356, 02, Mar. 2018. DOI: doi.org/10.1039/C7CS00543A.
- [20] N.A. Doniyarov, I.A. Tagaev, I.N. Murodov, A.A. "Asrorov, Features of the destruction of minerals of low-grade phosphorites of the central kyzylkum by neutrophilic heterotrophic microorganisms of activated sludge," *Mining Bulletin of Uzbekistan*, No. 3 (78), pp. 70-74, Sep. 2019.
- [21] T. Nurmurodov, S. Farmonova, N. Khurramov, E. Utamurodov, "Investigation of cleaning extraction phosphoric acid obtained from phosphorites of Central Kyzylkums," *Universum: Technical Science*, No 7(52), Jul. 2018. <http://7universum.com/ru/tech/archive/item/6166>
- [22] N.I. Khurramov, T.I. Nurmurodov, N.N. Bozorova, Z.U. Karimova, "Study of reological properties of solutions and slurries formed in the process of obtaining dicalcium phosphate," *Chemical technology: Control and management*, No.3, pp.5-10, 2020.
- [23] B.E. Sultanov, Z.M. Tursunova, Sh.S. Namazov, A.U. Erkaev, B.M. Beglov, "Effect of calcium nitrate solution concentration on the level of leaching of Central Kyzylkum phosphorite concentrates," *Uzbekistan Chemistry Journal*, No. 4, pp. 10-13, 2002.
- [24] U.K. Alimov, A.M. Reimov, Sh.S. Namazov, B.M. Beglov, "The insoluble part of phosphorus fertilizers, obtained by processing of phosphorites of central kyzylkum with partially ammoniated extraction phosphoric acid", *Rus. J. Applied Chemistry*, No. 3 (83), pp. 545-552, May 2010. DOI: doi.org/10.1134/S107042721030328
- [25] G.I. Avdonin, V.A. Gurov, M.Yu. Mamoshin, V.S. Pikalova, "An estimate of uranium recovery from phosphorite ores," *Prospect and protection of mineral resources*, No.12, pp. 48-55, 2017.
- [26] A.U. Erkaev, Kh.Ch. Mirzakulov, Sh.S. Namazov, "Density and viscosity of ammoniated suspensions of Fluorine-containing Precipitate in wet-process phosphoric acid," *Rus. J. Applied Chemistry*, No. 6 (69), pp. 798-802, Jun. 1996.
- [27] Mineral fertilizers. Methods of determination of phosphates, State Standard 20851, 1975.
- [28] "Method for the determination of trace elements in diagnosed biosubstrates by inductively coupled plasma mass spectrometry (ispms)" Guidelines. Ministry of Health, Russia, Moscow 2003.
- [29] S. Aghaeian, A. Ferdowsi, H. Yoozbashizadeh, "Extraction of lanthanides from apatite concentrate by hemihydrate-dihydrate process via sulfuric acid", *Int. Conf. on Materials Science and Metallurgy*, Shiraz University, Nov. 8-9, 2016.