RESEARCH OF RADIOACTIVE CONTAMINATION OF RBMK-REACTOR GRAPHITE

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For the first time integrated β-spectrometric and radiometric investigations, γ- and X-ray spectrometry of GRP-2-125 graphite from ChNPP Unit 2 were carried out. An analysis of obtained data has shown that it is necessary to carry out the comparison with experimental and calculated results of graphite activity research only on the basis of radioactive nuclide ^{14}C from irradiated reactor graphite. Nuclides ^{3}H and ^{36}Cl distributed uniformly among the samples. The others nuclides distributed inhomogeneous. Inhomogeneous distribution was detected for ^{60}Co, ^{90}Sr and ^{137}Cs only in one sample. Presence of ^{137}Cs and $^{154,155}Eu$ indicated a contamination of fissions products. Activity of irradiated GRP-2-125 graphite was defined of ^{14}C content as well as of content of radioactive nuclides of impurity and technological origin (^{3}H, ^{36}Cl, ^{55}Fe, ^{60}Co, ^{63}Ni, ^{93m}Nb, ^{94}Nb, ^{133}Ba, ^{134}Cs) and fuel fission products (^{90}Sr, ^{137}Cs, ^{154}Eu, ^{155}Eu).