DETERMINATION OF THE DISSOLUTION DEGREE OF THE FUEL MULTIPLIER FALLING OUT IN THE CHERNOBYL NPP EXCLUSION ZONE SOILS

A. A. Odintsov

Sequential extraction techniques have been utilized in order to investigate the degree of binding or association between long-term radionuclides ^{137}Cs, ^{90}Sr, $^{239+240}Pu$, ^{241}Am и ^{244}Cm and different components in soil and fuel particles on the west and northwest trace of fall out in the exclusion zone of ChNPP. The results indicate that in sandy-podzolik soil of flood-lands r. Pripiyt on northwest trace a major fraction 85 % ^{90}Sr, 55 % $^{239+240}Pu$, 75 % ^{241}Am and ^{244}Cm are associated with different soil components and are easily reachable. On the narrow west trace fall out transformation (dissolution) of fuel particles is in within the bounds 15 – 20%. Degree of transformation fuel hot particles mainly depends on their physicochemical properties.