DETAILED STUDY OF Rf AND No ISOTOPES RADIOACTIVE DECAY PROPERTIES

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The results of detailed study of No and Rf isotopes radioactive decay properties in complete fusion reactions ^{50}Ti + ^{208}Pb and ^{48}Ca + ^{208,206,204}Pb with subsequent neutron evaporation from the excited compound nucleus at the kinematic separator SHELS were performed. The decay properties for ^{256}Rf based on 9 registered recoil–alpha–alpha correlations and 6270 spontaneous fission events were refined. The half-life times were obtained for spontaneous fission events $T_{1/2}$ = (6.9 ± 0.23) ms and alpha decay $T_{1/2}$ = (5.7 ± 1.2) ms, with brunches b_{SF} = 99.71% and b_{α} = 0.29% respectively. ^{254}No, ^{252}No and ^{250}No isotopes were investigated in the reactions with ^{48}Ca projectile. For the ^{254}No events which can be attributed to decay from the 2 isomer states were observed. For the first time decays from the ground and isomer state were measured for spontaneous fission isomers of ^{250}No. The total kinetic energy of fission fragments is obtained for the isotope ^{252}No.