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Search for the heaviest N = Z alpha emitters YONGCHI XIAO, Univ of Tennessee, Knoxville, SHINTARO GO, ROBERT GRZYWACZ, KAROLINA KOLOS, UTK, KATSUHISA NISHIO, RICCARDO ORLANDI, HIROYUKI MAKII, KENTARO HIROSE, ICHIRO NISHINAKA, HIROSHI IKEZOE, JAMES SMALLCOMBE, ROMAIN LEGUILLON, JAEA, KRZYSZTOF RYKACZEWSKI, NATHAN BREWER, ORNL, MARTIN VESELSKY, Slovak Academy of Science, CARL GROSS, ORNL, COSTEL PETRACHE, CSNSM, ANDREI ANDREYEV, DAVID JENKINS, BOB WADSWORTH, MIKE BENTLEY, University of York, CHIARA MAZZOCCHI, University of Warsaw, FRITZ PETER HESSBERGER, GSI, GIACOMO DE ANGELIS, LNL-INFN, LUIS SARMIENTO, Lund University
— The enhancement of alpha-decay probability for nuclei above ^{100}Sn is expected because valence protons and neutrons above Z=N=50 occupy the same single-particle orbitals. The program to search for new alpha emitters in this region was initiated recently at the JAEA Tandem Laboratory at Tokai, Japan, where beams up to 30-50 pnA could be used. We performed proof-of-principle experiments with the Recoil Mass Separator (RMS) and digital electronics, which resulted in the observation of several ^{109}Xe alpha decay chains. The first discovery-aimed experiment, which searched for the ^{113}Ba alpha decay took place in December 2014, where possible candidates for the alpha decay of ^{113}Ba were observed. The current status of analysis will be presented.

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