Abstract Submitted
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Random Probability Analysis of ^{48}Ca+^{239}Pu Experimental Data[1] S.Y. STRAUSS, Notre Dame, R.A. HENDERSON, M.A. STOYER, LLNL, A.F.SH. ABDULLIN, JINR, N.T. BREWER, ORNL, S.N. DMITRIEV, JINR, R.K. GRZYWACZ, ORNL, J.H. HAMILTON, Vanderbilt, M.G. ITKIS, JINR, K. MIERNIK, ORNL, YU.TS. OGANESSIAN, A.N. POLYAKOV, JINR, J.B. ROBERTO, K.P. RYKACZEWSKI, ORNL, A.V. SABELNIKOV, R.N. SAGAIDAK, I.V. SHIROKOVSKY, M.V. SHUMEYKO, V.G. SUBBOTIN, A.M. SUKHOV, YU.S. TSYGANOV, V.K. UTYONKOV, A.A. VOINOV, G.K. VOSTOKIN, JINR — Element 114 (Fl), was discovered at the Flerov Laboratory of Nuclear Reactions (FLNR) using the ^{48}Ca +^{244}Pu reaction and the Dubna Gas-Filled Recoil Separator (DGFRS) [1]. The structural properties of the super heavy elements are still largely unknown. The extent of the region of enhanced stability near Z=114 and N=184 is not completely known. To examine these properties, a new experimental data set has been taken using the ^{48}Ca +^{239}Pu reaction at the DGFRS, in an effort to look for lighter isotopes of Fl. Progress on the production of lighter isotopes of Fl, cross-section measurements, and any nuclear decay properties will be discussed. Comparisons with reactions using heavier ^{242,244}Pu targets and Monte Carlo random probability analysis will be highlighted[2].

[1] Yu.Ts. Oganessian, *et al.*, Phys. Rev. C 62, 041604(R) (2000).
[2] N.J. Stoyer *et al.,* Nuc. Inst. Meth. A 455 (2000).

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