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First Lifetime Results from a Systematic Study of Odd-Mass Neutron-Rich Nuclides Near A∼110[1] B. BUCHER, University of Notre Dame, Indiana, USA, H. MACH, Uppsala University, Sweden, A. APRAHAMIAN, M.K. SMITH, University of Notre Dame, J. RISSANEN, J. ÄYSTÖ, T. ERONEN, A. JOKINEN, P. KARVONEN, I.D. MOORE, H. PENTTILÄ, M. REPONEN, A. SAASTAMOINEN, C. WEBER, University of Jyväskylä, Finland, G. SIMPSON, LPSC, Grenoble, France, D. GHIŢĂ, NIPNE, Bucharest-Magurele, Romania, W. KURCEWICZ, University of Warsaw, Poland, B. OLAIZOLA, Universidad Complutense de Madrid, Spain, E. RUCHOWSKA, Soltan Institute for Nuclear Studies, Świerk-Otwock, Poland — Our understanding of the astrophysical r-process nucleosynthesis path relies strongly on input from nuclear models. The mass region surrounding A∼110 is known to exhibit rapid structural evolution, however experimental data is lacking for nuclides away from stability making the prediction of important nuclear properties in the r-process region difficult. In this talk we report new pico-second lifetimes of excited states populated via beta decay of fission fragments produced at IGISOL in Jyväskylä, Finland. The measurements utilized triple coincidences ($\beta\gamma\gamma$) where two fast scinitillators (plastic for β and $LaBr_3$ for γ) were used in conjunction with a HPGe detector. Details of the experimental technique will be highlighted along with the presentation of eight new lifetimes in ^{109}Pd, which range between 10-1500 ps, representing the first results from a broad experimental campaign.

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