Structure of $^{21}$F from $^{14}$C-induced reactions$^1$ M. PERRY, S.L. TABOR, J. PAVAN, A. AGUILAR, P.C. BENDER, I.J. CALDERIN, D.B. CAMPBELL, W.T. CLUFF, E. DIFFENDERFER, J. FRIDMANN, T.A. HINNERS, C.R. HOFFMAN, K.W. KEMPER, S. LEE, B.T. ROEDER, C. TEAL, VANDANA TRIPATHI, M. WIEDEKING, I. WIEDENHÖVER, Florida State University — $^{21}$F was populated at Florida State University from the $^{10}$Be($^{14}$C,t) and $^{9}$Be($^{14}$C,d) reactions at 21.4 MeV and 22.0 MeV, respectively. HPGe detectors were used to study the gamma decay scheme of $^{21}$F, and a segmented particle telescope was used to detect the emitted particles from the compound nucleus for identification. New states were observed along with new gamma-ray transitions. Results will be compared with shell model calculations, previous experiments, and the systematics of other fluorine isotopes.

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Michelle Perry
Florida State University

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