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The ^{130}Sn(d,p)^{131}Sn Reaction in Inverse Kinematics R.L. KOZUB, J.F. SHRINER, JR., Tenn. Tech. U., A. ADEKOLA, Ohio U., D.W. BARDAYAN, J.C. BLACKMON, F. LIANG, C.D. NESARAJA, D. SHAPIRA, M.S. SMITH, ORNL, K.Y. CHAE, K.L. JONES, Z. MA, B.H. MOAZEN, U. Tenn., K. CHIPPS, U. GREIFE, L. ERIKSON, CSM, J.A. CIZEWSKI, R. HATARIK, S.D. PAIN, Rutgers, C. MATEI, ORAU, W. KROLAS, IFJ PAN Krakow, T.P. SWAN, Surrey, Rutgers — The r-process is thought to be responsible for the synthesis of about half of the nuclear species heavier than Fe, but little experimental information is available for nuclear structure and the r-process near the N=82 closed neutron shell and the A$\sim$130 abundance peak. We have acquired (d,p) reaction data on ^{130}Sn and ^{132}Sn[1] in inverse kinematics using 630 MeV beams (4.85 MeV/u for ^{130}Sn) and a CD_2 target of effective thickness $\simeq$160 μg/cm^2. An array of 20 Si strip detectors was used to detect reaction products in the range θ_{lab} $\simeq$67°-167°. The ^{2}H(^{130}Te,p)^{131}Te reaction was used for calibration purposes. More experimental details and a status report on the analysis will be presented.

[1]K. L. Jones, invited talk at this meeting.

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