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^{19}Ne states studied with the new JENSA gas jet target D.W. BARDAYAN, P.D. O'MALLEY, Notre Dame, K.A. CHIPPS, M. MATOS, S.D. PAIN, W.A. PETERS, S.T. PITTMAN, K. SCHMITT, M.S. SMITH, ORNL, S. AHN, K.L. JONES, A. SACHS, P. THOMPSON, U. Tenn., A. KONTOS, H. SCHATZ, NSCL, R.L. KOZUB, Tenn. Tech., B. MANNING, S. OTA, Rutgers, U. GREIFE, Col. School Mines, J.C. BLACKMON, L. LINHARDT, LSU, JENSA COLLABORATION — The observation of ^{18}F decay in novae would provide a direct test of nova models. To interpret such observations, the nuclear reactions that create and destroy ^{18}F in novae must be understood. The destruction primarily occurs through the ^{18}F$(p,\alpha)^{15}$O reaction via resonances from states in ^{19}Ne. Significant uncertainties remain concerning the properties of these states near the proton threshold at 6411 keV. We have used the newly-constructed JENSA (Jet Experiments in Nuclear Structure and Astrophysics) gas jet target at Oak Ridge National Laboratory to study these levels via the ^{20}Ne$(p,d)^{19}$Ne reaction. Deuterons were detected in the SIDAR Silicon Detector Array and the angular distributions were analyzed to determine the spins of astrophysically-relevant levels. The data and preliminary analysis will be presented.

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