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Characterization of levels in ¹⁷O from the reaction ¹²C(⁷Li,d)¹⁷O at 34 MeV¹ A.M. CRISP, W.D. WEINTRAUB, B.T. ROEDER, K.W. KEMPER, O. MOMOTYUK, M. WIEDEKING, Florida State University, N. KEELEY, Saclay, France, F. MARÉCHAL, Institut de Recherches Subatomiques, Strasbourg, France, K. RUSEK, Warsaw, Poland — Angular distributions and analyzing power data have been taken for the reaction ¹²C(⁷Li,d)¹⁷O at 34 MeV using the FSU Tandem/LINAC accelerator. Selective population of ¹⁷O levels at 6.86, 7.58, 8.47, 11.82, 12.00, 12.22, and 12.42 MeV were observed. Possible spin values have been determined for the states listed above 11 MeV by comparisons to angular distributions and analyzing powers of other ¹⁷O levels with known spin, and by DWBA calculations. The spin values of the states and suggestions for their structure will be presented.

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