Proportionality between \((t,3\text{He})\) reaction differential cross sections and Gamow-Teller strengths.\(^1\) GEORGE PERDIKAKIS, Michigan State University, \((T,3\text{HE})\) COLLABORATION AT NSCL, MICHIGAN STATE UNIVERSITY COLLABORATION — The so-called unit cross section describing the proportionality between differential cross sections and Gamow-Teller transition strengths is studied for the case of the \((t,3\text{He})\) charge-exchange reaction. Experimental data for \(H\), and \(^{12,13}\text{C}\) targets taken at 115 AMeV are complimented by existing data for \(^2\text{H}\), \(^6\text{Li}\), and \(^{26}\text{Mg}\). The \((t,3\text{He})\) results are compared with results for the \((3\text{He},t)\) reaction at 140 AMeV and for targets with 12;\(A\);120. Fairly consistent results for the unit cross section are found in the overlapping mass region. The \((t,3\text{He})\) and \((3\text{He},t)\) data sets are combined and used for a systematic study of the parameters that describe the unit cross section in the eikonal approximation.

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