

**Coupled channels analysis of positive pion inelastic scattering from  $^{28}\text{Si}$  at 50 MeV**

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The  $2_1^+$ ,  $4_1^+$ , and  $0_2^+$  states in  $^{28}\text{Si}$  have been observed with  $\pi^+$  scattering at 50 MeV. These data, along with existing data for  $^{28}\text{Si}$  are compared to coupled channel calculations. This analysis produces a larger  $\beta_2$  than previously found in low energy distorted wave calculations and is consistent with results from resonance energy studies. The interference of the one- and two-step contributions make the calculated  $4^+$  cross section quite sensitive to the sign of  $\beta_4$ . The sensitivity to the  $\pi A$  optical model is discussed.