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## Study of the resonance region of $^{11}\text{B}$ using the $^{10}\text{B}(\text{d},\text{p})^{11}\text{B}$ reaction

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States above particle emission thresholds in  $^{11}\text{B}$  have been of recent interest due to its possible role in  $\beta^-$  delayed proton emission from  $^{11}\text{Be}$ . To provide more data on this region, excitation energies from 8.4 to 13.6 MeV were studied using (d,p) reactions on enriched boron targets. A 16-MeV deuteron beam was produced at Florida State University's John D. Fox Superconducting Linear Accelerator. The outgoing protons were deflected and detected using the Super-Enge Split-Pole Spectrograph. Angular distributions for observed states were measured and analyzed with DWBA calculations. The recently observed 11.4-MeV resonance was not observed in this reaction, consistent with the interpretation that it is predominantly a proton resonance. An analogous narrow neutron resonance had been predicted at 11.6 MeV which was also not observed. Upper limits were placed on both states. Shell model calculations using the WBP interaction were performed to help interpret the structure of  $^{11}\text{B}$ .

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