

# A Compilation of Information on the $^{31}\text{P}(p,\alpha)^{28}\text{Si}$ Reaction and Properties of Excited Levels in the Compound Nucleus $^{32}\text{S}$ <sup>a</sup>

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## Abstract

This report documents a survey of the literature, and provides a compilation of data contained therein, for the  $^{31}\text{P}(p,\alpha)^{28}\text{Si}$  reaction. Attention is paid here to resonance states in the compound-nuclear system  $^{32}\text{S}$  formed by  $^{31}\text{P} + p$ , with emphasis on the alpha-particle decay channels,  $^{28}\text{Si} + \alpha$  which populate specific levels in  $^{28}\text{Si}$ . The energy region near the proton separation energy for  $^{32}\text{S}$  is especially important in this context for applications in nuclear astrophysics. Properties of the excited states in  $^{28}\text{Si}$  are also considered. Summaries of all the located references are provided and numerical data contained in them are compiled in EXFOR format where applicable.

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