^{51}Fe

In a paper entitled "New Proton-Rich Nuclei in the $f_{7/2}$ Shell", Proctor et al. described the discovery of ^{51}Fe in 1972 (1972Pr10). The Michigan State University sector-focused cyclotron accelerated ^{3}He to 70.8 MeV and the reaction ^{54}Fe(^{3}He,^{6}He) was used to produce ^{51}Fe. The outgoing ^{6}He particles were detected in the focal plane of an Enge split-pole magnetic spectrograph. "The ^{51}Fe ground state ($J^{\pi} = 5/2^{-}$) is even more weakly populated, but is unambiguously identified in a number of spectra."

Adapted from reference (2010Sc18)

1972Pr10 I. D. Proctor, W. Benenson, J. Dreisbach, E. Kashy *et al.*, Phys. Rev. Lett. **29**, 434 (1972).

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