## C($^{28}$Si,X) 2014NiZZ

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | M. S. Basunia and A. M. Hurst | NDS 134, 1 (2016) | 1-Feb-2016 |

Secondary beam of $^{26}$P obtained bombarding $^{28}$Si beam, E=300 MeV/nucleon, on polyethylene target (thickness 1.9 g/cm$^2$); $^{28}$Si beam was delivered for a duration of 1 s with 3.3 s repetition time; neutron-deficient nuclei separated by passing through secondary beam line and identified by time-of-flight and energy loss ΔE in 0.5 mm thick Si detector; Yield of $^{26}$P was 30 and purity 4% with main impurity $^{25}$Si; Finally, $^{26}$P beam, 100 MeV/nucleon, implanted in an acrylic stopper (thickness 0.6 g/cm$^2$) after passing through a plastic scintillator, a parallel-plate avalanche counter (PPAC), and a carbon energy degrader; $\gamma$ rays were measured using two high-purity germanium detectors with 0.5 mm-thick Be windows; identified excited state in $^{26}$P, deduced half-life.

### $^{26}$P Levels

| E(level) | $J^\pi$ | $T_{1/2}$ | Comments |
|---|---|---|---|
| 0.0 | $(3)^+$ | | |
| 164.4 *1* | | 120 ns *9* | $T_{1/2}$: Deduced by fitting 164$\gamma$(t) decay curve using maximum likelihood method. |

### $\gamma$($^{26}$P)

| $E_\gamma$ | $E_i$(level) | $E_f$ | $J^\pi_f$ |
|---|---|---|---|
| 164.4 *1* | 164.4 | 0.0 | $(3)^+$ |

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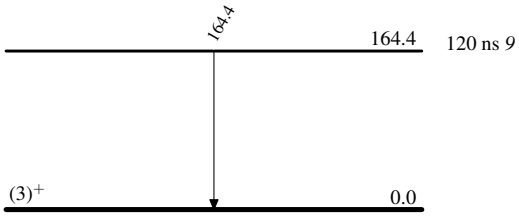
Level Scheme




$^{26}_{15}P_{11}$