## <sup>31</sup>K p decay 2019Ko18

	Histor	у	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia, A. Chakraborty	NDS 197,1 (2024)	31-May-2024

Parent: <sup>31</sup>K: E=0.0; T<sub>1/2</sub><10 ps; Q(p)=2.15×10<sup>3</sup> 15; %p decay=?

 $^{31}$ K-T<sub>1/2</sub>: derived from distributions of the measured decay vertices (2019Ko18).

<sup>31</sup>K-Q(p): From 2019Ko18. Other: -4900 350 (syst) (2021Wa16).

Adapted/Edited the XUNDL dataset compiled by J. Chen (NSCL, MSU), September 26, 2019.

2019Ko18: <sup>31</sup>K isotopes were produced in the charge-exchange reaction of p(<sup>31</sup>Ar,n), with E=620 MeV/nucleon, <sup>31</sup>Ar secondary beam produced by the fragmentation of a primary 850 MeV/nucleon <sup>36</sup>Ar beam provided from the SIS-FRS facility at GSI and with protons from decays of main reaction products of <sup>29,30</sup>Ar from the <sup>31</sup>Ar beam on a <sup>9</sup>Be target. Protons from <sup>31</sup>K decay were detected by a double-sided silicon microstrip detector (DSSD) array placed downstream of the secondary target. Measured E(p), I(p), proton correlations. Deduced proton-decay energies of ground and excited states.

<sup>30</sup>Ar Levels

E(level)	Iπ
L(level)	J

0.0  $0^+$   $J^{\pi}$ : from Adopted Levels.

Comments