

Si(p,X),C(p,X):Q **2009Mi04**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 127, 1 (2015)	15-Jan-2015

Target=SiC.

$^{21}\text{Na}$  was produced by bombardment of a thick SiC production target, which was coupled to a surface source, with 500-MeV proton beam. The  $^{21}\text{Na}$  ions were initially transported to a special line where they were polarized using collinear laser pumping and then delivered to  $\beta$ -NMR apparatus and implanted into a hexagonal ZnO single crystal. An external dipole-magnetic field of  $B_0=0.5286$  T was applied parallel to the direction of polarization. The  $\beta^+$ -rays from  $^{21}\text{Na}$  decay were detected by a set of six plastic scintillation counters placed at  $0^\circ$  and  $90^\circ$  relative to the external field direction.

 $^{21}\text{Na}$  Levels

E(level)	J $^\pi$	T $_{1/2}$	Comments
0.0	3/2 $^+$	22.49 s 4	$\% \epsilon + \% \beta^+ = 100$ $Q = 0.140$ 11 Q: From <b>2009Mi04</b> , deduced using the $\beta$ -NMR technique. Value measured relative to $Q(^{27}\text{Na}_{g.s.}) = 0.0072$ 3 ( <b>2000Ke09</b> ). Sign of quadrupole moment is not given by this method. J, t, $\% \epsilon + \% \beta^+$ from Adopted Levels, Gammas.