$^{16}O(^{20}Ne,\alpha)$ 1985Mo14

Type	Author	History Citation	Literature Cutoff Date
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1985Mo14: E=51.9 MeV beam was from the sector focused cyclotron at the Institute for Nuclear Study, Tokyo. Target was 10 μg/cm^2 WO_3 on a Au foil. Reaction products were momentum analyzed with a Q2D magnetic spectrograph and detected with a position-sensitive gas proportional counter. Measured $\sigma(E_\alpha,\theta)$, $\alpha\alpha$-correlation (with a Ta_2O_5 target). Deduced levels, J, π, widths, α branching ratios. Searching for quasi-molecular bands near or below threshold.

All data are from 1985Mo14.

^{32}S Levels

E(level)[†]	J^π	Γ	L[‡]	Comments
11700 *20*	(4^+)	55 keV *24*		$\Gamma_{\alpha0}/\Gamma$=0.084 *+50−51*.
11940 *20*	5^-	86 keV *24*	5	$\Gamma_{\alpha0}/\Gamma$=0.128 *+50−51*.
12760 *20*	6^+	84 keV *24*	6	$\Gamma_{\alpha0}/\Gamma$=0.021 *+38−13*.
13040 *20*	(4^+)	<47 keV		$\Gamma_{\alpha0}/\Gamma$=0.099 *+34−35*.
13220				
13760 *20*	6^+	50 keV *24*	6	$\Gamma_{\alpha0}/\Gamma$=0.078 *22*.
14000 *20*	(7^-)	50 keV *24*	(7)	$\Gamma_{\alpha0}/\Gamma$=0.140 *+36−37*.
14120				
14610				
14810 *20*	(8^+)	91 keV *24*		$\Gamma_{\alpha0}/\Gamma$=0.100 *23*.
14960				
15.2×10^3 *1*	6^+	119 keV *24*	6	$\Gamma_{\alpha0}/\Gamma$=0.042 *9*.
15960				

[†] 18 excited levels are observed in the energy spectrum in 1985Mo14 but only 13 levels are labelled in FIG.1 and only 8 levels listed in TABLE I; others correspond to levels observed previously in $^{28}Si(^7Li,t)$ by 1969Go17, as stated in 1985Mo14.

[‡] From analysis of $\alpha\alpha(\theta)$ (1985Mo14).