

$^{32}\text{S}(\mu^-, \gamma)$ **1999Go23**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 201,1 (2025)	31-Oct-2024

1999Go23: 65 MeV muon beam was produced from the M9B beam line at TRIUMF. Targets were natural and enriched (99.28% ^{32}S) sulfur. Muons were stopped using a plastic scintillator and γ rays were detected with two Ge detectors. Measured E_γ , I_γ . Deduced levels.

1969Pr09: E at rest at the Nuclear Research Center of the Carnegie-Mellon university. Measured γ yields. Deduced levels.

 ^{32}P Levels

E(level) [†]	J^π [‡]	Total yield [#]	Comments
0	1 ⁺		
78	2 ⁺		
513	0 ⁺		
1149	1 ⁺	0.032 3	Total yield: other: 0.0138 29 (1969Pr09).
1323	2 ⁺	0.0195 20	Total yield: other: 0.013 5 (1969Pr09).
1755	3 ⁺	0.0066 7	Total yield: other: 0.0020 22 (1969Pr09).
2658	2 ⁺	0.0073 8	
3264	2 ⁻	0.0232 25	Total yield: other: 0.026 11 (1969Pr09).
3320	3 ⁻	0.0059 6	
4036 [@]		0.012 [@] 11	
4205	1 ⁺	0.0258 27	
4663 [@]		0.012 [@] 5	
4710	1 ⁺	0.0144 15	
4876 [@]		0.0022 [@] 17	

[†] As quoted in **1999Go23** from **1990En08** evaluation, unless otherwise noted.

[‡] From Adopted Levels.

[#] Total yield per muon capture in **1999Go23**, unless otherwise noted.

[@] From **1969Pr09** only.

 $\gamma(^{32}\text{P})$

E_γ [†]	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ [†]	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
636	0.0159 18	1149	1 ⁺	513	0 ⁺	2114	0.0100 10	3264	2 ⁻	1149	1 ⁺
1071	0.0126 14	1149	1 ⁺	78	2 ⁺	2658	0.0050 6	2658	2 ⁺	0	1 ⁺
1149	0.0021 2	1149	1 ⁺	0	1 ⁺	3185	0.0037 4	3264	2 ⁻	78	2 ⁺
1244	0.0075 8	1323	2 ⁺	78	2 ⁺	3242	0.0044 5	3320	3 ⁻	78	2 ⁺
1323	0.0120 13	1323	2 ⁺	0	1 ⁺	3264		3264	2 ⁻	0	1 ⁺
1508	0.0047 5	3264	2 ⁻	1755	3 ⁺	4126	0.0258 27	4205	1 ⁺	78	2 ⁺
1676	0.0063 7	1755	3 ⁺	78	2 ⁺	4632	0.0080 9	4710	1 ⁺	78	2 ⁺
1940	0.0019 3	3264	2 ⁻	1323	2 ⁺						

[†] As quoted in **1999Go23** from **1990En08** evaluation.

