^{2}H(^{36}S,^{37}Sγ) 2001Gu10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	John Cameron, Jun Chen and Balraj Singh, Ninel Nica	NDS 113, 365 (2012)	15-Jan-2012

2001Gu10: E(^{36}S)=2.2 MeV/nucleon; target=CD_2. Measured Eγ, Iγ, σ, γ-rf, γ(particle) coin using Miniball Ge detector array for γ rays and a thin position-sensitive parallel plate avalanche counter (PPAC) and ΔE-E telescopes for particles. REX-ISOLDE facility.

One-neutron pickup reaction combined with γ-ray detection.

^{37}S Levels

E(level)	J$^{\pi}$[†]	σ (mb)
0	7/2$^-$	
646	3/2$^-$	140 *46*
1397?		
1992	3/2$^-$	23 *10*
2023?		
2638	1/2$^-$	56 *15*

[†] From Adopted Levels.

γ(^{37}S)

Eγ	Iγ	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Comments
646 *1*	100	646	3/2$^-$	0	7/2$^-$	σ=215 mb *43*.
751[‡]	<3	1397?		646	3/2$^-$	
1347 *3*	8	1992	3/2$^-$	646	3/2$^-$	σ=19 mb *10*.
1377[‡]	<3	2023?		646	3/2$^-$	
1992 *2*	2[†]	1992	3/2$^-$	0	7/2$^-$	
1993 *2*	27[†]	2638	1/2$^-$	646	3/2$^-$	σ=61 mb *14* for doublet.
2023[‡]	<3	2023?		0	7/2$^-$	

[†] The total intensity of the 1992 doublet=29, divided to the 1992 and 2638 levels according to the cross sections and the branching of the latter from Adopted Levels.

[‡] Placement of transition in the level scheme is uncertain.

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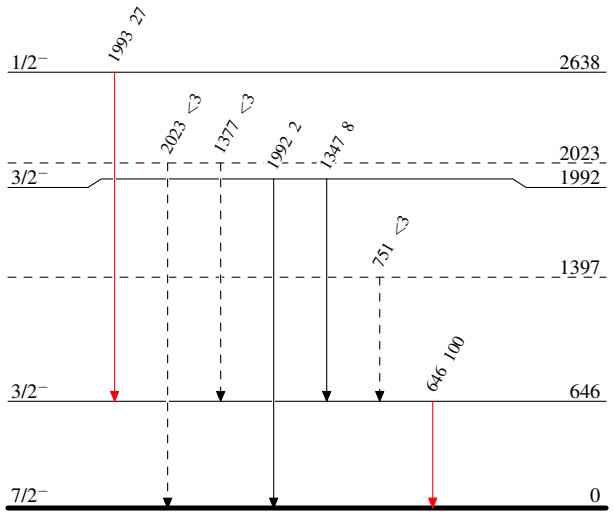
Level Scheme

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



$^{37}_{16}S_{21}$