Energy levels and branching ratios [90En08, 98En04].

$^{30}_{16}$S

E^*	J^π	β_L	$T_{1/2}$ or	Ref.	Branching ratios in percentage		
					E_f^*:	0	2210.6
[keV]		(p,p′)	Γ_{cm}		J_f^π:	0^+	2^+
0	0^+		1.178(5) s				
2210.6(5)	2^+	0.32(3)	175(15) fs	01Kh17		100	
3402.6(5)	2^+		115(15) fs			20(3)	80(3)
3666.3(16)			>1 ps				100
3676(3)	1		100(55) fs			60(10)	40(10)
5136(2)			38(14) fs				100
		01Kh17		Ref.			

Additional data on this isotope can be found in [02Ot03, 96Sc31].

Energy levels and branching ratios [90En08, 98En04].

$^{31}_{16}$S

E^*	$2J^\pi$	ℓ_n	C^2S	σ (τ,α)	S_n^-	C^2S	C^2S	C^2S	σ (p,d)	$T_{1/2}$ or	Ref.
[keV]			(τ,α)	μb/sr	eval	eval	(p,d)	(p,d)	μb/sr	Γ_{cm}	
0	1^+	0	0.7	1434	2.0(2)	1.0(1)	1.00	1.04	620	2.572(13) s	74Ma34
1248.9(2)	3^+	2	0.95	1687	1.5(2)	0.75(10)	1.25	0.94	1200	500(125) fs	72Bh01
2235.6(4)	5^+	2	2.25	6184	4.2(4)	2.1(2)	2.80	2.77	2300	220(56) fs	74Ma34
3079.0(11)	1^+	0		<120			<0.05				68Ko11
3285.5(5)	5^+	2	0.41	1170			0.74	0.73	780		74Ma34
3351.1(6)	$\langle 3,7\rangle^+$			54					<20		72Bh01
3437(7)	3^+	$\langle 2\rangle$		180							72Bh01
4080(8)	$\langle 3,5\rangle^+$	2	0.85	obsc			0.97	0.86	1000		68Ko11
4204(7)	$\langle 1–7\rangle^+$			obsc							72Bh01
4452(6)	$\langle 5,7\rangle^-$	3		500			0.06		340		68Ko11
4525(8)	3^+			<30							72Bh01
4580(6)	$\langle 1–7\rangle^+$			80							72Bh01
4718(6)	$\langle 3,5\rangle^+$	2	0.34	780			0.46		440		68Ko11
4866(7)				60							72Bh01
4969(7)	$\langle 1,3\rangle^-$	1	0.05	175			0.01		100		68Ko11
5022(12)				142							72Bh01
5151(6)	1^+	0	0.24	443			<0.07				68Ko11
5306(9)				<20					55		72Bh01
5408(9)				<30							72Bh01
5440(11)											
5515(11)				80							72Bh01
5685(8)				<30							72Bh01
5781(8)	$\langle 3,5\rangle^+$	2	0.27	394							72Bh01
5826(10)				50							72Bh01
5894(9)	$\langle 3,5\rangle^+$	2	0.20	378			0.24		330		68Ko11
5985(10)				100							72Bh01
6155(10)				105							72Bh01
6267(10)	1^+	0	0.17	700			<0.2		210		68Ko11

(continued) **$^{31}_{16}$S**

E^* [keV]	$2J^\pi$	ℓ_n	C^2S (τ,α)	σ (τ,α) μb/sr	S_n^- eval	C^2S eval	C^2S (p,d)	C^2S (p,d)	σ (p,d) μb/sr	$T_{1/2}$ or Γ_{cm}	Ref.
6268(10)	3^+										
6350(11)				<100							72Bh01
6396(10)				<100							72Bh01
6453(11)											
6593(15)				<20							72Bh01
6628(13)				<30							72Bh01
6712(11)				90							72Bh01
6748(10)				60							72Bh01
6796(25)											
6835(9)				127							72Bh01
6870(10)				70							72Bh01
6921(25)											
6996(15)	1^+			1000							72Bh01
7039(10)	$\langle 3,5\rangle^+$	2	1.40	2784			0.54	1.00	850		74Ma34
7112(25)											
7155(9)	$\langle 3,5\rangle^+$	2	0.16	255							72Bh01
7199(13)											
7310(11)											
7445(25)											
7522(20)											
7600(30)											
7660(30)											
7715(15)	$\langle 1\text{–}5\rangle^+$										
7768(25)							3.0		470		68Ko11
7850(25)											
7888(25)											
7985(25)									210		68Ko11
8082(25)											
8183(25)											
8362(25)											
8453(25)									140		68Ko11
8880									130		68Ko11
9430									600		68Ko11
			72Bh01		77En02			74Ma34			Ref.
				72Bh01		77En02	68Ko11		68Ko11		Ref.

Additional data on this isotope can be found in [04Ga15, 00Pi01].

Values C^2S from the (τ,α) reaction are normalized to give a total s-d strength of about 8.0 [72Bh01].

Two values C^2S from the neutron pickup (p,d) reaction are from [74Ma34] and [68Ko11].

One-neutron removal cross section measured recently in [04Ga15] was transformed there into the upper limits $C^2S \leq 0.85(21)$, 1.22(20) and 1.28(32) for the spectroscopic factors of the states with E^*=0.0, 1249 and 2242 keV, respectively.

Evaluated values $S_n^-=2C^2S$ were obtained in [77En02] by averaging of S_p^- for ^{31}P.

Energy levels and branching ratios [90En08, 98En04]. Part 2 **$^{31}_{16}$S**

E^*	$2J^\pi$		Branching ratios in percentage		
		E^*_f:	0	1248.9	2235.6
[keV]		$2J^\pi_f$:	1^+	3^+	5^+
1248.9(2)	3^+		100		
2235.6(4)	5^+		100	<3	
3079.0(11)	1^+		100		<8
3285.5(5)	5^+			75(3)	25(3)
3351.1(6)	$\langle 3,7\rangle^+$		<6	100	
3437(7)	3^+		46(3)	54	

Energy levels and branching ratios [90En08, 98En04]. **$^{32}_{16}$S**

E^*	J^π	T	L	C^2S	C^2S	Γ	S'^+_p	S'^+_p	ℓ_n	S^-_n	$\Gamma_\circ$	ω_γ	Γ	$T_{1/2}$ or	Ref.
[keV]				(τ,d)	(τ,d)	(d,n)	eval	(τ,d)		(τ,α)	[meV]	[meV]	[keV]	Γ_{cm}	
0	0^+	0	0	1.24	1.30	0.75	2.0(2)	2.6	2	0.80				Stable	94Ve04
2230.6(2)	2^+	0	2	0.57	0.54	1.51	1.2(2)	5.4	0+2	0.5+0.1	3.1(5)			168(5) fs	94Ve04
3778.3(7)	0^+	0	0	0.36	0.34	0.15	0.57(8)	0.68	2	0.16				0.7(1) ps	94Ve04
4281.8(3)	2^+	0	2				<0.1	0.06	0+2	≈0+0.3	12.4(2)			29(3) fs	77En02
4458.9(8)	4^+								2	0.36				120(15) fs	70Gr02
4695.4(4)	1^+	0	2			0.67	0.73(12)	2.4	0+2	0.2+0.1				245(35) fs	77En02
5006.2(3)	3^-	0	3			0.92	0.46(7)	3.4	3	0.015				460(50) fs	77En02
5413.0(8)	3^+	0	2					0.12	2	0.25				105(20) fs	77En02
5548.9(7)	2^+	0	2			0.13	0.16(3)	0.80	0+2	0.03+0.2				55(15) fs	77En02
5796.8(3)	1^-	0	1			0.15	0.20(4)	0.64	1+3	0.01	82(14)			7(3) fs	77En02
6224.3(7)	2^-	0	1			0.15	0.15(3)	0.76	3	0.16				60(10) fs	77En02
			3				0.06								77En02
6411(1)	4^+	0							2	0.18				24(6) fs	79Cr02
6580(2)															
6621.1(3)	4^-	0	3			0.54	0.34(9)	3.2	3	0.025				450(70) fs	77En02
6665.7(8)	2^+	0	2			⟨0.1⟩		0.32	0+2	0.03+0.1				30(20) fs	79Cr02
6761.7(3)	5^-	0							3	0.03				>200 fs	79Cr02
6852(2)	4^+	0												65(20) fs	
7003(1)	1^+	1	2			0.58		2.4	0+2	0.56+0.2				<3 fs	79Cr02
7115(1)	2^+	1	2			0.70		4.0	0+2	0.63+0.1				<3 fs	79Cr02
7190(1)	1^+	0	0			0.02	0.32(8)	0.20	0+2	≈0+0.1					77En02
7350.2(6)	3^+	0	⟨2⟩					⟨0.08⟩	2	0.15					78Ka18
7434(2)	1^-	0	1			0.09		0.32	1	0.07					78Ka18
7484.0(4)	2^+	0	⟨2⟩					⟨0.16⟩	2	0.8	38(7)				78Ka18
7535.7(8)	0^+	1	0			0.05		0.36	2	0.29					78Ka18
7566.9(8)	5^+		3					0.24	⟨1⟩	⟨0.06⟩				104(24) fs	78Ka18
7637(1)	$\langle 0,1\rangle^+$														
7701.7(14)	3^-														
7882.9(9)	4^+														
7885(3)	$\langle 0–2\rangle^-$		1			0.035		0.16	2	0.05					78Ka18

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	S'^+_p eval	S'^+_p (τ,d)	ℓ_n	S^-_n (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
7921.0(10)	$\langle 0,1\rangle^+$									incl					70Gr02
7950.1(4)	4^-		3					0.40						85(15) fs	78Ka18
7974.9(7)	3^-		3					0.36						<21 fs	78Ka18
8125.4(2)	1^+	1	0			0.08		0.72			3044(508)			160(20) as	78Ka18
8191.1(6)	4^+														
8270.3(14)	5^-													<42 fs	
8276(4)	$\langle 0–4\rangle^+$								2						
8296.3(10)	3^-		3					0.56							78Ka18
8344(3)	2^+														
8345.8(11)	2^+–6^+														
8380(4)															
8407.0(14)	2^+														
8499.3(5)	1^-		1			0.12		0.60			231(50)	20(2)			02Ba28
8507(8)	0^+														
8690(2)	2^+														
8729.3(6)	3^+	0+1													
8745.6(8)	3														
8861(2)	2^+														
9023(2)*	3^-	0	3					0.36				58(6)			78Ka18
9024(2)	6^-,4^-													184(38) fs	
9059(2)*	$\langle 1,2\rangle^-$		1			0.10		0.32							78Ka18
9065(2)	4^+											49(11)		<15 fs	02Ba81
9138(5)															
9170(2)*	2^+–6^+														
9208(1)*	1^+	1	0			0.01		0.12			43(13)			0.36(11) eV	78Ka18
			2			0.04		0.32							78Ka18
9235(2)	2^+–5^+													<42 fs	
9236(2)*	1^-	0	1			0.04		0.12				505(34)			78Ka18
9255(10)*	$\langle 2,3\rangle^+$		2					0.28							78Ka18
9290(1)*	1^+		0			0.01		0.12							78Ka18
			2			0.06		0.08							78Ka18
9389(1)*	2^-		1			0.23		1.2							78Ka18
9463.5(8)	7^-,5^-	0												<50 ns	
9463.9(12)	2^+											667(85)			02Ba81
9486.7(9)	1^-	0	1			0.06		0.20				897(78)		8.2(25) eV	78Ka18
9557(10)															
9635.7(12)	6^-,4^-													<100 fs	
9650.3(8)	2^+		2					0.24							78Ka18
9659.6(12)	1^+	1												2.4(7) eV	
9711.5(7)	2^+	0												3.6 eV	
9724.3(8)	$\langle 3,4\rangle^-$		3					0.68							78Ka18
9730.8(8)	1^-		1			0.08		0.44							78Ka18
9783(2)														<180 fs	
9817.3(12)	3^-	0	3					0.80							78Ka18
9849(3)	1^-	0	1			0.02		0.16						100(10) eV	78Ka18

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	S'^+_p eval	S'^+_p (τ,d)	ℓ_n	S^-_n (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
9887.7(8)	1^+	0	2					0.20						10(5) eV	78Ka18
9919.8(8)	2^+													10(5) eV	
9949.9(8)	1^-	0	1					0.12						150(15) eV	78Ka18
9978.3(9)	4^-		3					1.0							78Ka18
9978.8(9)	3^+							incl							
9983.2(8)	2^-														
9986(3)	0^+	0												100(10) eV	
10021(10)	$\langle 2\text{–}4\rangle^-$		3					0.08							78Ka18
10076.5(8)	2^-	1	1			0.31		1.8						1.50(15) keV	78Ka18
10104.1(10)	4^+	0													
10220.5(8)	3^+	0	3					2.8						10(5) eV	78Ka18
10223.2(10)	3^-	0+1						incl						56(10) eV	
10226.2(16)	1^-													180(20) eV	
10231.5(8)	1^+	0												25(3) eV	
10257.5(9)	4^-	1	3					5.2						35(4) eV	78Ka18
10276(8)	4^+														
10288.2(16)	3^-	0												160(20) eV	
10291.2(8)	2^-	0												125(13) eV	
10293.3(16)	2^+	0												70(10) eV	
10332.5(16)	1^-	0	1			0.08		0.68						6.1(7) keV	78Ka18
10372.1(8)	2^+	1	2					0.24						25(3) eV	78Ka18
10397.6(8)	4^-	1	3					1.4						12(2) eV	78Ka18
10401.6(16)	0^-		1			0.07		0.28						7.0(7) keV	78Ka18
10434.3(10)	2^+,3^-	0													
10457(3)	0^+	0												1.7(2) keV	
10509.9(12)	2^+													10(5) eV	
10528(3)	2^+	0												80(10) eV	
10573.1(12)	5^+													15(2) eV	
10604.0(12)	1^-	0												150(20) eV	
10626(3)	3^-	0	3					0.32						660(70) eV	78Ka18
10636.4(10)	3^-–5^-														
10696.4(12)	2^+													180(20) eV	
10700.8(12)	1^-	0+1						1.9						21(4) keV	78Ka18
10705.3(10)	3^-–5^-														
10757.0(12)	3^+	1												50(10) eV	
10769(3)	2^-	1						1.0						5.1(5) keV	78Ka18
10779.3(12)	2^+	0												620(70) eV	
10785.6(12)	1^+	1												750(80) eV	
10787.2(12)	0^+	0												600(60) eV	
10792.7(12)	2^+	0												170(20) eV	
10826.0(12)	1^-	0+1	1					0.88						22(4) keV	78Ka18
10827.3(12)	2^+	0+1												320(30) eV	
10916(3)	1^-	0												1.6(2) keV	
10934(1)	3^+	1												33(4) fs	
10977(3)	2^-													6.7(7) keV	

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	S'^+_p eval	S'^+_p (τ,d)	ℓ_n	S^-_n (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
10980(40)	6^-	1													
11010(1)	4^+	1													
11051(3)	2^+	0												4.2(4) keV	
11083(3)	2^+													89(9) eV	
11092(3)	3^-	1	3					0.24						70(7) eV	78Ka18
11123(1)	1^+	0+1												6.4(7) keV	
11140(1)	1^+	1												2.6(3) keV	
11170(50)	6^-	1													
11197(3)	3^-		3					0.40						80(8) eV	78Ka18
11225(3)	1^-	0												190(20) eV	
11231(3)	2^-													800(100) eV	
11234(3)	1^-	0												7.9(8) keV	
11236(1)	3^+													50(10) eV	
11254(1)	3^+	1												210(20) eV	
11333(1)	2^+													150(20) eV	
11440(3)	2^-													350(40) eV	
11447(3)	1^-	0												5.3(6) keV	
11475(1)	3^+	1												230(30) eV	
11486(1)	2^+	0												500(50) eV	
11508(3)	2^-,1^-													33(6) keV	
11557(3)	3^-													50(10) eV	
11584(3)	0^+	0												3.1(3) keV	
11587(3)	1^-	0												≈2 keV	
11590(1)	2^+	0												160(20) eV	
11602(1)	2^+	0												810(80) eV	
11605(3)	$\langle 1,2\rangle^-$													7.0(7) keV	
11607(3)	0^+	0												310(30) eV	
11609(3)	1^-	0												19(4) keV	
11623(3)	1^+													5.5(6) keV	
11625(3)	3^-													60(10) eV	
11630(3)	1^-	0												27(5) keV	
11636(3)	1^-													1.9(2) keV	
11637(1)	1^+	1												800(80) eV	
11670(1)	5^+	1													
11679(3)	2^+	0												2.6(3) keV	
11697(1)	5^+														
11722(3)	2^+	0												2.8(3) keV	
11735(3)	1^-	0												24(3) keV	
11749(3)	1^+													900(90) eV	
11759(1)	4^-	1												140(20) eV	
11784(3)	3^-													30(10) eV	
11803(3)	3^+													120(10) eV	
11805(3)	3^-	0												2.0(4) keV	
11807(3)	1^-	0												37(7) keV	
11818(3)	2^-													19(4) keV	

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	S'^+_p eval	S'^+_p (τ,d)	ℓ_n	S^-_n (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
11832(3)	2^+													140(20) eV	
11865(3)	2^-													8.2(9) keV	
11869(3)	0^+													1.1(1) keV	
11879(3)	3^-													3.6(7) keV	
11902(3)	1^-	0												750(150) eV	
11910(3)	1^-	0												6.3(7) keV	
11930(3)	0^+	0												100(20) eV	
11940(40)	6^-	1													
11940(1)	3^-		3					0.24						15(2) eV	78Ka18
12044(1)	4^-	1	3					0.56						400(40) eV	78Ka18
12049(1)	0^+	2												40(15) eV	
12930			3										29(5)		03Ka07
13086			3										26(7)		03Ka07
13268			3										49(3)		03Ka07
13370			3										29(1)		03Ka07
13490			3										54(5)		03Ka07
13588			3										18(4)		03Ka07
13655			3										74(2)		03Ka07
13696			4										24(1)		03Ka07
13807			3										47(1)		03Ka07
13870			5										22(1)		03Ka07
13896			4										22(1)		03Ka07
14070			3										30(1)		03Ka07
14131			5										15(1)		03Ka07
14177			4										42(1)		03Ka07
14234			3										89(2)		03Ka07
14429			3										40(2)		03Ka07
14542			4										85(1)		03Ka07
14633			5										7(1)		03Ka07
14832			4										38(1)		03Ka07
14878			4										26(1)		03Ka07
15025			4										31(1)		03Ka07
15116			5										36(2)		03Ka07
15230			4										18(2)		03Ka07
15344			5										46(1)		03Ka07
15385			5										25(1)		03Ka07
15441			5										34(1)		03Ka07
15527			5										47(1)		03Ka07
15631			5										30(1)		03Ka07
15686			5										36(1)		03Ka07
15758			6										41(1)		03Ka07
15847			4										47(2)		03Ka07
15894			5										28(1)		03Ka07
15955			6										22(1)		03Ka07
16052			5										54(2)		03Ka07

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	S'^+_p eval	S'^+_p (τ,d)	ℓ_n	S^-_n (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
16243			6										41(1)		03Ka07
16341			5										86(2)		03Ka07
16495			5										64(3)		03Ka07
16615			6										60(2)		03Ka07
16691			5										23(2)		03Ka07
16747			6										45(2)		03Ka07
16795			6										76(6)		03Ka07
16866			6										38(1)		03Ka07
16920			6										35(1)		03Ka07
16978			6										47(3)		03Ka07
17080			6										58(1)		03Ka07
17250			5										92(14)		03Ka07
17393			7										35(6)		03Ka07
17656			7										36(2)		03Ka07
17688			7										26(2)		03Ka07
17868			6										82(7)		03Ka07
17934			7										48(4)		03Ka07
18042			7										44(2)		03Ka07
18213			7										76(7)		03Ka07
18458			7										66(5)		03Ka07
18554			7										74(1)		03Ka07
18660			7										74(5)		03Ka07
18736			7										75(6)		03Ka07
18803			8										46(3)		03Ka07
18986			8										34(2)		03Ka07
19119			8										84(7)		03Ka07
19248			8										54(10)		03Ka07
19442			7										72(2)		03Ka07
19551			8										75(18)		03Ka07
19653			8										54(2)		03Ka07
19747			8										79(9)		03Ka07
20275			7										44(4)		03Ka07
20381			8										72(17)		03Ka07
20485			8										84(4)		03Ka07
20703			8										37(4)		03Ka07
20835			8										59(2)		03Ka07
21212			9										69(3)		03Ka07
21395			9										70(5)		03Ka07
21457			9										45(4)		03Ka07
21532			9										39(10)		03Ka07
21783			8										53(2)		03Ka07
22135			9										74(4)		03Ka07
22205			9										54(9)		03Ka07
22308			9										47(14)		03Ka07
22355			8										24(5)		03Ka07

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	T	L	C^2S (τ,d)	C^2S (τ,d)	Γ (d,n)	$S_p'^+$ eval	$S_p'^+$ (τ,d)	ℓ_n	S_n^- (τ,α)	$\Gamma_\circ$ [meV]	ω_γ [meV]	Γ [keV]	$T_{1/2}$ or Γ_{cm}	Ref.
22846			9										51(5)		03Ka07
22964			10										58(3)		03Ka07
23226			9										74(16)		03Ka07
23296			9										52(7)		03Ka07
23493			10										93(12)		03Ka07
				94Ve04		76Uz01	77En02	78Ka18			02Ba28	02Ba81	03Ka07		Ref.
					78Ka18					79Cr02					Ref.

Additional data on this isotope can be found in [03Ka07, 02Oh03, 02Ba28, 01Ro27, 01Kh17, 00Br64, 97GyZZ, 96Cu02, 95Ro22, 94Ma46, 91Ar23, 73Mo06, 73Ka26].

Abundance: 95.02(9) %.

* For this proton unbound state parameters E_p^{cm} (resonance energy), Γ_α/Γ and Γ_γ/Γ can be found in [95Ro22].

Two values C^2S from proton transfer (τ,d) reaction are from [94Ve04, 78Ka18], for proton transfer (d,n) reaction the parameter $G = (2J_f + 1)C^2S/(2J_i + 1)$ is taken from [76Uz01]; values $S_p'^+$ are from P.Endt evaluation [77En02] which do not includes experimental data on $(2J{+}1)S_p^+{=}S_p'^+$ from high resolution measurements in [78Ka18] (given in the next column).

Spectroscopic factor S_n^- is from the study of neutron pickup (τ,α) reaction [79Cr02].

Parameter of deformation β_L=0.30(2) was obtained in [01Kh17] for the first excited 2^+ level.

Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [90En08, 98En04]. Part 2 **$^{32}_{16}$S**

E^*	J^π	Γ_α	γ^2_α	$\gamma^2_\alpha/\gamma^2_W$	$E_\circ$	Ref.		Branching ratios in percentage				
							E^*_f:	0	2230.3	3778.3	4281.5	4458.9	4695.4
[keV]		[keV]			[keV]		J^π_f:	0^+	2^+	0^+	2^+	4^+	1^+
0	0^+					94Ve04							
2230.6(2)	2^+					94Ve04		100					
3778.3(7)	0^+					94Ve04		0.035(7)	100				
4281.8(3)	2^+					77En02		85.9(6)	14.1(6)				
4458.9(8)	4^+					70Gr02			100				
4695.4(4)	1^+					77En02		40.0(10)	60.0(10)				
5006.2(3)	3^-					77En02		3.1(6)	96.9(6)				
5413.0(8)	3^+					77En02			100				
5548.9(7)	2^+					77En02		40.0(10)	60.0(10)				
5796.8(3)	1^-					77En02		100					
6224.3(7)	2^-					77En02			100				
						77En02							
6411(1)	4^+					79Cr02			100				
6580(2)									100				
6621.1(3)	4^-					77En02			2.3(7)			22(3)	
6665.7(8)	2^+					79Cr02			52(4)	48(4)			
6761.7(3)	5^-					79Cr02						29(7)	

(continued) **$^{32}_{16}$S**

E^*	J^π	Γ_α	γ_α^2	$\gamma_\alpha^2/\gamma_W^2$	$E_\circ$	Ref.		Branching ratios in percentage				
							E_f^*:	0	2230.3	3778.3	4281.5	4458.9	4695.4
[keV]		[keV]			[keV]		J_f^π:	0^+	2^+	0^+	2^+	4^+	1^+
6852(2)	4^+										73(7)	17(7)	
7003(1)	1^+					79Cr02			100				
7115(1)	2^+					79Cr02		3.0(10)	85.0(20)		3.0(10)		9.0(10)
7190(1)	1^+					77En02		40(8)	60(8)				
7350.2(6)	3^+					78Ka18							100
7434(2)	1^-					78Ka18		60(15)	20(10)	20(10)			
7484.0(4)	2^+					78Ka18		100					
7535.7(8)	0^+					78Ka18							100
7566.9(8)	5^+					78Ka18						70(10)	
7637(1)	$\langle 0,1\rangle^+$										100		
7701.7(14)	3^-								100				
7882.9(9)	4^+								75(5)				
7885(3)	$\langle 0\text{–}2\rangle^-$					78Ka18							
7921.0(10)	$\langle 0,1\rangle^+$					70Gr02			100				
7950.1(4)	4^-					78Ka18							
7974.9(7)	3^-					78Ka18			72(7)				
8125.4(2)	1^+					78Ka18		87(4)	13(4)				
8191.1(6)	4^+										18(3)	28(6)	
8270.3(14)	5^-												
8276(4)	$\langle 0\text{–}4\rangle^+$												
8296.3(10)	3^-					78Ka18			67(11)		33(11)		
8344(3)	2^+												
8345.8(11)	2^+–6^+											100	
8380(4)													
8407.0(14)	2^+									72(7)	13(3)		14(3)
8499.3(5)	1^-					02Ba28							
8507(8)	0^+												
8690(2)	2^+												
8729.3(6)	3^+												
8745.6(8)	3												
8861(2)	2^+												
9023(2)*	3^-					78Ka18							
9024(2)	6^-,4^-												
9059(2)*	$\langle 1,2\rangle^-$					78Ka18							
9065(2)	4^+					02Ba81							
9138(5)													
9170(2)*	2^+–6^+											100	
9208(1)*	1^+					78Ka18							
						78Ka18							
9235(2)	2^+–5^+											50(5)	
9236(2)*	1^-					78Ka18							
9255(10)*	$\langle 2,3\rangle^+$					78Ka18							
9290(1)*	1^+					78Ka18							
						78Ka18							
9389(1)*	2^-					78Ka18							

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	Γ_α [keV]	γ^2_α	$\gamma^2_\alpha/\gamma^2_W$	$E_\circ$ [keV]	Ref.	Branching ratios in percentage						
							E^*_f:	0	2230.3	3778.3	4281.5	4458.9	4695.4
							J^π_f:	0^+	2^+	0^+	2^+	4^+	1^+
9463.5(8)	7^-,5^-												
9463.9(12)	2^+					02Ba81							
9486.7(9)	1^-					78Ka18							
9557(10)													
9635.7(12)	6^-,4^-												
9650.3(8)	2^+					78Ka18							
9659.6(12)	1^+												
9711.5(7)	2^+												
9724.3(8)	$\langle 3,4\rangle^-$					78Ka18							
9730.8(8)	1^-					78Ka18							
9783(2)												100	
9817.3(12)	3^-					78Ka18							
9849(3)	1^-					78Ka18							
9887.7(8)	1^+					78Ka18							
9919.8(8)	2^+												
9949.9(8)	1^-					78Ka18							
9978.3(9)	4^-					78Ka18							
9978.8(9)	3^+												
9983.2(8)	2^-												
9986(3)	0^+												
10021(10)	$\langle 2\text{–}4\rangle^-$					78Ka18							
10076.5(8)	2^-					78Ka18							
10104.1(10)	4^+												
10220.5(8)	3^+					78Ka18							
10223.2(10)	3^-												
10226.2(16)	1^-												
10231.5(8)	1^+												
10257.5(9)	4^-					78Ka18							
10276(8)	4^+												
10288.2(16)	3^-												
10291.2(8)	2^-												
10293.3(16)	2^+												
10332.5(16)	1^-					78Ka18							
10372.1(8)	2^+					78Ka18							
10397.6(8)	4^-					78Ka18							
10401.6(16)	0^-					78Ka18							
10434.3(10)	2^+,3^-												
10457(3)	0^+												
10509.9(12)	2^+												
10528(3)	2^+												
10573.1(12)	5^+												
10604.0(12)	1^-												
10626(3)	3^-					78Ka18							
10636.4(10)	3^-–5^-												
10696.4(12)	2^+												

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	Γ_α [keV]	γ^2_α	$\gamma^2_\alpha/\gamma^2_W$	$E_\circ$ [keV]	Ref.	Branching ratios in percentage						
							E^*_f:	0	2230.3	3778.3	4281.5	4458.9	4695.4
							J^π_f:	0^+	2^+	0^+	2^+	4^+	1^+
10700.8(12)	1^-					78Ka18							
10705.3(10)	3^-–5^-												
10757.0(12)	3^+												
10769(3)	2^-					78Ka18							
10779.3(12)	2^+												
10785.6(12)	1^+												
10787.2(12)	0^+												
10792.7(12)	2^+												
10826.0(12)	1^-					78Ka18							
10827.3(12)	2^+												
10916(3)	1^-												
10934(1)	3^+												
10977(3)	2^-												
10980(40)	6^-												
11010(1)	4^+												
11051(3)	2^+												
11083(3)	2^+												
11092(3)	3^-					78Ka18							
11123(1)	1^+												
11140(1)	1^+												
11170(50)	6^-												
11197(3)	3^-					78Ka18							
11225(3)	1^-												
11231(3)	2^-												
11234(3)	1^-												
11236(1)	3^+												
11254(1)	3^+												
11333(1)	2^+												
11440(3)	2^-												
11447(3)	1^-												
11475(1)	3^+												
11486(1)	2^+												
11508(3)	2^-,1^-												
11557(3)	3^-												
11584(3)	0^+												
11587(3)	1^-												
11590(1)	2^+												
11602(1)	2^+												
11605(3)	$\langle 1,2\rangle^-$												
11607(3)	0^+												
11609(3)	1^-												
11623(3)	1^+												
11625(3)	3^-												
11630(3)	1^-												
11636(3)	1^-												

(continued) **$^{32}_{16}$S**

E^*	J^π	Γ_α	γ^2_α	$\gamma^2_\alpha/\gamma^2_W$	$E_\circ$	Ref.	Branching ratios in percentage						
							E^*_f:	0	2230.3	3778.3	4281.5	4458.9	4695.4
[keV]		[keV]			[keV]		J^π_f:	0^+	2^+	0^+	2^+	4^+	1^+
11637(1)	1^+												
11670(1)	5^+												
11679(3)	2^+												
11697(1)	5^+												
11722(3)	2^+												
11735(3)	1^-												
11749(3)	1^+												
11759(1)	4^-												
11784(3)	3^-												
11803(3)	3^+												
11805(3)	3^-												
11807(3)	1^-												
11818(3)	2^-												
11832(3)	2^+												
11865(3)	2^-												
11869(3)	0^+												
11879(3)	3^-												
11902(3)	1^-												
11910(3)	1^-												
11930(3)	0^+												
11940(40)	6^-												
11940(1)	3^-					78Ka18							
12044(1)	4^-					78Ka18							
12049(1)	0^+								<0.7				
12930		16(10)	16(10)	2.7	6834	03Ka07							
13086		6(4)	5(3)	0.9	7012	03Ka07							
13268		18(1)	13(1)	2.1	7220	03Ka07							
13370		13(1)	8.6(5)	1.3	7337	03Ka07							
13490		28(3)	16(2)	2.6	7474	03Ka07							
13588		8(2)	4.0(12)	0.7	7586	03Ka07							
13655		50(2)	25(1)	4.0	7663	03Ka07							
13696		12(1)	14(1)	2.3	7710	03Ka07							
13807		28(1)	21(1)	3.4	7836	03Ka07							
13870		11(1)	11(1)	1.7	7908	03Ka07							
13896		9(1)	26(1)	4.3	7938	03Ka07							
14070		27(1)	9.6(3)	1.6	8137	03Ka07							
14131		7(1)	15(1)	2.4	8207	03Ka07							
14177		25(1)	18(1)	2.9	8259	03Ka07							
14234		69(2)	22(1)	3.5	8324	03Ka07							
14429		41(2)	12(1)	1.8	8547	03Ka07							
14542		66(2)	34(1)	5.6	8676	03Ka07							
14633		2(1)	2.6(4)	0.4	8780	03Ka07							
14832		33(1)	14(1)	2.3	9008	03Ka07							
14878		15(1)	6.0(2)	1.0	9060	03Ka07							
15025		21(2)	7.6(6)	1.2	9229	03Ka07							

(continued) **$^{32}_{16}$S**

E^* [keV]	J^π	Γ_α [keV]	γ_α^2	$\gamma_\alpha^2/\gamma_W^2$	$E_\circ$ [keV]	Ref.	Branching ratios in percentage						
							E_f^*:	0	2230.3	3778.3	4281.5	4458.9	4695.4
							J_f^π:	0^+	2^+	0^+	2^+	4^+	1^+
15116		16(1)	14(1)	2.2	9332	03Ka07							
15230		5(1)	1.6(2)	0.3	9463	03Ka07							
15344		23(1)	16(1)	2.7	9593	03Ka07							
15385		14(1)	9.4(3)	1.5	9640	03Ka07							
15441		25(1)	16(1)	2.7	9704	03Ka07							
15527		25(1)	15(1)	2.5	9802	03Ka07							
15631		28(1)	16(1)	2.6	9921	03Ka07							
15686		17(1)	9.3(4)	1.5	9984	03Ka07							
15758		20(1)	32(1)	5.2	10066	03Ka07							
15847		33(2)	7.6(6)	1.2	10168	03Ka07							
15894		19(1)	8.8(3)	1.4	10222	03Ka07							
15955		14(1)	20(1)	3.2	10291	03Ka07							
16052		28(2)	12(1)	2.0	10402	03Ka07							
16243		19(1)	20(1)	3.3	10620	03Ka07							
16341		47(1)	17(1)	2.8	10732	03Ka07							
16495		39(3)	13(1)	2.1	10908	03Ka07							
16615		38(2)	30(1)	4.9	11046	03Ka07							
16691		12(3)	3.7(8)	0.6	11132	03Ka07							
16747		23(3)	17(2)	2.8	11197	03Ka07							
16795		41(3)	29(2)	4.8	11251	03Ka07							
16866		28(1)	19(1)	3.1	11333	03Ka07							
16920		14(1)	9.4(3)	1.5	11394	03Ka07							
16978		18(2)	11(1)	1.8	11461	03Ka07							
17080		33(1)	19(1)	3.1	11577	03Ka07							
17250		96(27)	22(6)	3.6	11771	03Ka07							
17393		20(17)	31(26)	5.0	11935	03Ka07							
17656		16(1)	21(1)	3.3	12235	03Ka07							
17688		11(1)	13(1)	2.1	12272	03Ka07							
17868		35(3)	13(1)	2.1	12478	03Ka07							
17934		20(2)	20(2)	3.3	12553	03Ka07							
18042		26(1)	25(1)	4.1	12677	03Ka07							
18213		28(7)	21(6)	4.0	12872	03Ka07							
18458		15(1)	11(1)	1.8	13152	03Ka07							
18554		28(1)	20(1)	3.2	12262	03Ka07							
18660		38(3)	25(2)	4.1	13383	03Ka07							
18736		29(2)	18(2)	2.9	13470	03Ka07							
18803		13(1)	27(2)	4.4	13546	03Ka07							
18986		12(1)	22(2)	3.6	13755	03Ka07							
19119		23(4)	38(6)	6.2	13907	03Ka07							
19248		15(3)	23(5)	3.7	14055	03Ka07							
19442		25(1)	11(1)	1.8	14276	03Ka07							
19551		18(4)	22(6)	3.7	14401	03Ka07							
19653		32(1)	37(1)	6.1	14518	03Ka07							
19747		20(3)	22(3)	3.7	14625	03Ka07							
20275		15(1)	4.5(3)	0.7	15228	03Ka07							

(continued) **$^{32}_{16}$S**

E^*	J^π	Γ_α	γ_α^2	$\gamma_\alpha^2/\gamma_W^2$	$E_\circ$	Ref.	Branching ratios in percentage						
							E_f^*:	0	2230.3	3778.3	4281.5	4458.9	4695.4
[keV]		[keV]			[keV]		J_f^π:	0^+	2^+	0^+	2^+	4^+	1^+
20381		24(10)	18(8)	3.0	15350	03Ka07							
20485		21(1)	15(1)	2.5	15468	03Ka07							
20703		7(1)	4.4(7)	0.7	15718	03Ka07							
20835		17(1)	11(1)	1.6	15869	03Ka07							
21212		15(1)	26(1)	4.2	16299	03Ka07							
21395		11(1)	17(1)	2.8	16509	03Ka07							
21457		6(1)	9.2(10)	1.5	16579	03Ka07							
21532		6(2)	9(6)	1.5	16665	03Ka07							
21783		22(1)	8.9(3)	1.4	16952	03Ka07							
22135		15(1)	15(1)	2.5	17354	03Ka07							
22205		12(4)	12(4)	1.9	17434	03Ka07							
22308		10(7)	9(6)	1.5	17552	03Ka07							
22355		5(1)	1.4(4)	0.2	17606	03Ka07							
22846		8(1)	5.9(8)	1.0	18167	03Ka07							
22964		8(1)	20(1)	3.3	18395	03Ka07							
23226		14(3)	8(2)	1.3	18601	03Ka07							
23296		10(2)	6.3(13)	1.0	18681	03Ka07							
23493		17(2)	31(4)	5.1	18906	03Ka07							
		03Ka07	03Ka07		03Ka07	Ref.							
						Ref.							

Energy levels and branching ratios [90En08, 98En04]. Part 3 **$^{32}_{16}$S**

E^*	J^π	Branching ratios in percentage									
	E_f^*:	5006.2	5413.0	5548.9	6411.0	6621.1	6761.7	6852	7002.5	8126.5	9208.1
[keV]	J_f^π:	3^-	3^+	2^+	4^+	4^-	5^-	4^+	1^+	1^+	1^+
6621.1(3)	4^-	74(3)	1.4(2)								
6761.7(3)	5^-	71(7)									
6852(2)	4^+		10(4)								
7566.9(8)	5^+		30(10)								
7882.9(9)	4^+	14(5)		11(5)							
7950.1(4)	4^-	60(10)	40(10)								
7974.9(7)	3^-	28(7)									
8191.1(6)	4^+		24(5)	30(6)							
8270.3(14)	5^-	100									
8729.3(6)	3^+		41(7)			36(7)		23(4)			
8745.6(8)	3		7(3)	8(4)	40(5)	34(5)		12(5)			
9024(2)	6^-,4^-					30(6)	70(6)				
9235(2)	2^+–5^+		50(5)								
9463.5(8)	7^-,5^-						100				
9463.9(12)	2^+						100				

(continued) **$^{32}_{16}$S**

E^*	J^π	Branching ratios in percentage									
	E_f^*:	5006.2	5413.0	5548.9	6411.0	6621.1	6761.7	6852	7002.5	8126.5	9208.1
[keV]	J_f^π:	3^-	3^+	2^+	4^+	4^-	5^-	4^+	1^+	1^+	1^+
9635.7(12)	6^-,4^-					100					
12049(1)	0^+								6.0(10)	83.0(20)	11.0(20)

Energy levels and branching ratios [88Kh04, 90En08, 98En04]. **$^{33}_{16}$S**

E^*	$2J^\pi$	S_n^+	S'	S_N	S_n^-	C^2S	Ref.
[keV]		eval	(d,p)	(d,p)	eval	(d,t)	
0	3^+	0.7(1)	3.7	0.93	1.9(3)	1.90	88Kh04
841.00(1)	1^+	0.4(1)	0.63	0.32	0.68(14)	0.79	88Kh04
1967.18(4)	5^+	<0.01	<0.01	<0.002	0.05(2)	0.06	88Kh04
2313.45(1)	3^+	0.07(2)	0.265	0.066	0.21(4)	0.16	88Kh04
2867.72(2)	5^+	0.05(2)	⟨0.4⟩	⟨0.1⟩	1.0(2)	1.53	88Kh04
2935.2(2)	7^-	0.54(6)	4.50	0.57	0.09(6)		77En02
2968.6(1)	7^+						
3220.75(1)	3^-	0.5(1)	1.90	0.48	0.01(1)		77En02
3831.6(2)	5^+					0.70	88Kh04
3934.87(8)	3^+						
4047.8(1)	9^+						
4055.5(2)	1^+				0.00(1)		77En02
4094.0(2)	7^+						
4144.49(6)	5						
4210.95(3)	3^-	0.08(2)	0.30	0.075	small		77En02
4374.9(3)	1^+						
4423.8(1)	1^+,3						
4729.4(1)	9^-						
4746(1)	⟨1–5⟩$^+$						
4865.7(2)	11^-					0.09	88Kh04
4918.09(2)	1^-		0.088	0.044			71Me12
4942(2)	⟨5,7⟩$^-$		⟨0.4⟩	⟨0.07⟩			71Me12
5177(3)							
5209(2)							
5273(2)							
5282(2)							
5286.1(3)	1–5$^+$						
5337(3)	⟨3,5⟩$^+$						
5347(6)							
5395(3)							
5480.1(4)	1^+					0.44	88Kh04
5597(6)							
5613.15(5)	1^+						
5622(6)							

(continued) **$^{33}_{16}$S**

E^* [keV]	$2J^\pi$	S_n^+ eval	S' (d,p)	S_N (d,p)	S_n^- eval	C^2S (d,t)	Ref.
5711.06(2)	1^-		1.06	0.53			71Me12
5726(2)							
5869(6)							
5888.56(3)	3^-		0.44	0.11			71Me12
5916(3)	1^+						
5982(6)							
6067(6)							
6079(6)							
6101(6)							
6131(6)							
6234(6)							
6261(6)							
6310(6)							
6326(6)							
6362(3)	5^+					0.22	88Kh04
6372(6)							
6416(6)							
6425.10(3)	1^-,3^-		⟨0.35⟩	⟨0.18⟩			71Me12
6487(6)							
6513(6)							
6526(6)							
6559(6)							
6616(6)							
6676.98(4)	1^+–5^+						
6689(6)	5^-,7^-		⟨1.05⟩	⟨0.18⟩			71Me12
6710(6)							
6720(6)							
6788(6)							
6892(6)							
6905(3)	3^+					0.50	88Kh04
6967(3)	1^+–7^+						
6999(6)							
7017(6)							
7038(4)							
7133(6)							
7164(6)							
7183(6)							
7187.98(3)	3^-		0.184	0.046			71Me12
7254(6)							
7330(6)							
7337(4)	5^+					0.57	88Kh04
7353(6)							
7359(6)							
7369(6)							
7401(6)							

(continued) **$^{33}_{16}$S**

E^* [keV]	$2J^\pi$	S_n^+ eval	S' (d,p)	S_N (d,p)	S_n^- eval	C^2S (d,t)	Ref.
7416.15(3)	$1^-,3^-$		⟨0.53⟩	⟨0.26⟩			71Me12
7452(6)							
7460(6)							
7475(6)							
7482(6)							
7488.49(16)	$1–5^+$						
7506.58(3)	$1–5^+$						
7560(6)							
7579(6)							
7589(6)							
7595(6)							
7601(6)	$5^-,7^-$		⟨0.32⟩	⟨0.05⟩			71Me12
7616.02(4)	$1^+–5^+$						
8107(12)							
8234(24)	5^+					0.33	88Kh04
8329(12)							
8368.35(4)	$1–5^+$						
8584(10)	$5^-,7^-$						
8644(10)	$3^+,5^+$						
8671.15(10)	1^-						
8683.48(10)							
8687.06(10)							
8729(10)	$\langle 5,7\rangle^-$						
8736.22(10)	3^-						
8741.27(10)	1^+						
8750.45(10)	3^-						
8782.40(12)	5^+						
8797.00(10)	5^+					0.29	88Kh04
8809.12(12)							
8838.13(10)	1^-						
8873(10)	$\langle 5,7\rangle^-$						
8894.10(10)	5^+						
8905.46(11)	1^-						
8921.26(11)	3^-						
8941.38(11)	$\langle 5,7\rangle^-$						
8944.49(11)							
8952.98(14)							
8975(10)	$\langle 5,7\rangle^-$						
8976.87(11)	3^-						
8984.14(11)	5^+						
9006.73(11)	1^+						
9008.64(14)							
9012.11(18)							
9030.54(12)	$\langle 3,5\rangle^+$						
9041.42(12)	3^-						

(continued) **$^{33}_{16}$S**

E^* [keV]	$2J^\pi$	S_n^+ eval	S' (d,p)	S_N (d,p)	S_n^- eval	C^2S (d,t)	Ref.
9054.5(2)							
9087.31(12)	3^+						
9090.31(12)	5^+						
9115(10)							
9139.33(16)	$\langle 3,5\rangle^+$						
9158.37(14)							
9175(10)							
9200.1(3)							
9209.86(16)	3^-						
9210.63(14)	5^+						
9245(10)	$\langle 5,7\rangle^-$						
9267.5(5)							
9271.08(14)	5^+						
9280(10)	$\langle 5,7\rangle^-$						
9287.31(16)	3^+						
9296.42(14)	3^+						
9308.5(10)							
9316.45(16)	1^+						
9344.32(15)	1^-						
9357.1(5)	$\langle 5,7\rangle^-$						
9359.89(16)	3^-						
9394.3(2)	$\langle 5,7\rangle^-$						
9396.54(16)	3^-						
9401.53(16)	3^+						
9435.38(16)	5^+					0.66	88Kh04
9449.93(17)	$\langle 5,7\rangle^-$						
9460(10)	$\langle 1,3\rangle^-$						
10356(30)	5^+					1.09	88Kh04
		77En02	71Me12	71Me12	77En02	88Kh04	Ref.

Additional data on this isotope can be found in [02En02, 95Fo16, 90Pi05, 85Ra15].

Abundance: 0.75(1) %.

Values S_n^+ and S_n^- were evaluated by P.Endt [77En02] from the results of 10 experimental works, see references in [90En08]; data on S' and S_N=S_n^+ from the (d,p) reaction measured in one of these works are given.

The column with C^2S contains normalized spectroscopic factors from the ^{34}S(d,t)^{33}S neutron pickup reaction [88Kh04].

Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [88Kh04, 90En08, 98En04]. Part 2

$^{33}_{16}$S

E^*	$2J^\pi$	$T_{1/2}$ or	Ref.	Branching ratios in percentage							
				E_f^*:	0	841	1967	2313	2868	2935	2969	3221
[keV]		Γ_{cm}		$2J_f^\pi$:	3^+	1^+	5^+	3^+	5^+	7^-	7^+	3^-
0	3^+	Stable	88Kh04									
841.00(1)	1^+	1.17(3) ps	88Kh04		100							
1967.18(4)	5^+	104(14) fs	88Kh04		99(1)	1.3(3)						
2313.45(1)	3^+	107(17) fs	88Kh04		31(2)	68(2)	1.1(2)					
2867.72(2)	5^+	19(8) fs	88Kh04		99(1)	1.5(2)	<1	<2				
2935.2(2)	7^-	28(2) ps	77En02		46(2)	<2.1	54(2)	<2.1				
2968.6(1)	7^+	62(11) fs			91(2)	<2.0	9(2)	<1				
3220.75(1)	3^-	28(8) fs	77En02		36(1)	63(1)	0.3(1)	0.4(1)	0.40(10)	<0.10		
3831.6(2)	5^+	31(6) fs	88Kh04		71(2)	<6	<4	20(2)	<7	<3.0	9.0(10)	<2.0
3934.87(8)	3^+	24(5) fs			61(3)	16(2)	12(2)	5(3)	6.0(10)	<6		<3
4047.8(1)	9^+	211(35) fs			<4.0	<5	87(1)	<3.0	<9	3.0(10)	10.0(10)	<1.9
4055.5(2)	1^+	12(8) fs	77En02		100							
4094.0(2)	7^+	31(5) fs			5(1)	<3.0	88(1)		7.0(20)			<1.9
4144.49(6)	5	24(5) fs			85(2)					8.0(10)		7.0(20)
4210.95(3)	3^-	32(5) fs	77En02		<1	93(1)	<2.0	7(1)	<1	<1		<1
4374.9(3)	1^+	24(9) fs			100							
4423.8(1)	1^+,3	19(9) fs			53(5)	21(3)	19(3)	7(2)	<2.0	<2.0		<2.0
4729.4(1)	9^-	57(9) fs						<5	<3.9	18(1)	82(1)	<3.9
4746(1)	$\langle 1–5\rangle^+$	<7 fs			90(3)	10(3)						
4865.7(2)	11^-	250(40) fs	88Kh04			<5	<5	<8	<8	100		
4918.09(2)	1^-	90(25) fs	71Me12		4.0(10)	2(1)	<2.0	<2.0	<2.0	<2.0		90.5(20)
4942(2)	$\langle 5,7\rangle^-$	27(9) fs	71Me12							100		
5177(3)												
5209(2)		<14 fs			100							
5273(2)												
5282(2)		21(6) fs			100							
5286.1(3)	$1–5^+$					53(10)		47(10)				
5337(3)	$\langle 3,5\rangle^+$											
5347(6)												
5395(3)												
5480.1(4)	1^+		88Kh04		15(5)	85(5)						
5597(6)												
5613.15(5)	1^+					64(5)						
5622(6)												
5711.06(2)	1^-		71Me12		1.1(3)	76(2)	<0.3	7.0(10)	<0.5	<0.5		16.0(10)
5726(2)												
5869(6)												
5888.56(3)	3^-		71Me12		14(1)	61(2)	2.6(6)	<1.0	4.1(10)	<2.1		14(2)
5916(3)	1^+											
5982(6)												
6067(6)												
6079(6)												
6101(6)												
6131(6)												
6234(6)												

(continued) **$^{33}_{16}$S**

E^*	$2J^\pi$	$T_{1/2}$ or	Ref.	Branching ratios in percentage							
				E_f^*:	0	841	1967	2313	2868	2935	2969	3221
[keV]		Γ_{cm}		$2J_f^\pi$:	3^+	1^+	5^+	3^+	5^+	7^-	7^+	3^-
6261(6)												
6310(6)												
6326(6)												
6362(3)	5^+		88Kh04									
6372(6)												
6416(6)												
6425.10(3)	1^-,3^-		71Me12		5(1)	68(2)	<3.0	<3.0	<3.0	<3.0		<3.0
6487(6)												
6513(6)												
6526(6)												
6559(6)												
6616(6)												
6676.98(4)	1^+–5^+				25(2)	13(2)	8(2)	24(2)	5(2)	<3		15(2)
6689(6)	5^-,7^-		71Me12									
6710(6)												
6720(6)												
6788(6)												
6892(6)												
6905(3)	3^+		88Kh04									
6967(3)	1^+–7^+											
6999(6)												
7017(6)												
7038(4)												
7133(6)												
7164(6)												
7183(6)												
7187.98(3)	3^-		71Me12		64(4)	36(4)						
7254(6)												
7330(6)												
7337(4)	5^+		88Kh04									
7353(6)												
7359(6)												
7369(6)												
7401(6)												
7416.15(3)	1^-,3^-		71Me12		79(6)	21(6)						
7452(6)												
7460(6)												
7475(6)												
7482(6)												
7488.49(16)	1–5^+				100							
7506.58(3)	1–5^+				41(5)	59(5)						
7560(6)												
7579(6)												
7589(6)												
7595(6)												

(continued) **$^{33}_{16}$S**

E^* [keV]	$2J^\pi$	$T_{1/2}$ or Γ_{cm}	Ref.	Branching ratios in percentage							
			E_f^*:	0	841	1967	2313	2868	2935	2969	3221
			$2J_f^\pi$:	3^+	1^+	5^+	3^+	5^+	7^-	7^+	3^-
7601(6)	5^-,7^-		71Me12								
7616.02(4)	1^+–5^+					100					
8107(12)											
8234(24)	5^+		88Kh04								
8329(12)											
8368.35(4)	1–5^+			59(10)	41(10)						
8584(10)	5^-,7^-										
8644(10)	3^+,5^+										
8671.15(10)	1^-	64(1) eV									
8683.48(10)											
8687.06(10)											
8729(10)	$\langle 5,7\rangle^-$										
8736.22(10)	3^-	117(2) eV									
8741.27(10)	1^+	15.0(1) keV									
8750.45(10)	3^-	558(5) eV									
8782.40(12)	5^+										
8797.00(10)	5^+		88Kh04								
8809.12(12)											
8838.13(10)	1^-	3.05(2) keV									
8873(10)	$\langle 5,7\rangle^-$										
8894.10(10)	5^+	5(1) eV									
8905.46(11)	1^-	1.66(1) keV									
8921.26(11)	3^-	1.12(2) keV									
8941.38(11)	$\langle 5,7\rangle^-$										
8944.49(11)											
8952.98(14)											
8975(10)	$\langle 5,7\rangle^-$										
8976.87(11)	3^-	22(1) eV									
8984.14(11)	5^+	6(1) eV									
9006.73(11)	1^+	7.85(3) keV									
9008.64(14)											
9012.11(18)											
9030.54(12)	$\langle 3,5\rangle^+$										
9041.42(12)	3^-	63(3) eV									
9054.5(2)											
9087.31(12)	3^+	52(3) eV									
9090.31(12)	5^+	81(2) eV									
9115(10)											
9139.33(16)	$\langle 3,5\rangle^+$										
9158.37(14)											
9175(10)											
9200.1(3)											
9209.86(16)	3^-	150(25) eV									
9210.63(14)	5^+	1.29(2) keV									
9245(10)	$\langle 5,7\rangle^-$										

(continued) **$^{33}_{16}$S**

E^*	$2J^\pi$	$T_{1/2}$ or	Ref.	Branching ratios in percentage							
				E_f^*:	0	841	1967	2313	2868	2935	2969	3221
[keV]		Γ_{cm}		$2J_f^\pi$:	3^+	1^+	5^+	3^+	5^+	7^-	7^+	3^-
9267.5(5)												
9271.08(14)	5^+	470(5) eV										
9280(10)	$\langle 5,7\rangle^-$											
9287.31(16)	3^+	36(4) eV										
9296.42(14)	3^+	98(5) eV										
9308.5(10)												
9316.45(16)	1^+	11.80(12) keV										
9344.32(15)	1^-	4.50(5) keV										
9357.1(5)	$\langle 5,7\rangle^-$											
9359.89(16)	3^-	1.12(13) keV										
9394.3(2)	$\langle 5,7\rangle^-$											
9396.54(16)	3^-	1440(15) eV										
9401.53(16)	3^+	125(5) eV										
9435.38(16)	5^+	560(7) eV	88Kh04									
9449.93(17)	$\langle 5,7\rangle^-$											
9460(10)	$\langle 1,3\rangle^-$											
10356(30)	5^+		88Kh04									
			Ref.									

Energy levels and branching ratios [88Kh04, 90En08, 98En04]. Part 3 **$^{33}_{16}$S**

E^*	$2J^\pi$		Branching ratios in percentage					
		E_f^*:	3935	4056	4145	4211	4918	5613
[keV]		$2J_f^\pi$:	3^+	1^+	5	3^-	1^-	1^+
4918.09(2)	1^-		1.9(3)	0.81(20)	<0.40	0.81(20)		
5613.15(5)	1^+		36(5)					
5711.06(2)	1^-				<0.3	0.20(10)		0.11(2)
5888.56(3)	3^-				4.1(10)	<2.1	0.20(10)	
6425.10(3)	1^-,3^-				5.0(10)	22(2)		
6676.98(4)	1^+–5^+				4(1)	6(1)		

Energy levels and branching ratios [90En08, 98En04]. **$^{34}_{16}$S**

E^*	J^π	L	S_n^+	$G_{\ell j}$	S_p^-	$I_{s,0}$	$\Gamma_\circ$	Ref.
[keV]			eval	(d,p)	eval	[eVb]	[meV]	
0	0^+	2	1.9(3)	0.46	1.3			77En02
2127.56(1)	2^+	0	0.05(3)		0.34			77En02
		2	1.1(2)	1.32	0.54			77En02

(continued) **$^{34}_{16}$S**

E^* [keV]	J^π	L	S_n^+ eval	$G_{\ell j}$ (d,p)	S_p^- eval	$I_{s,0}$ [eVb]	$\Gamma_\circ$ [meV]	Ref.
3304.21(1)	2^+	0	0.07(3)	0.16	1.1			77En02
		2	0.39(6)	0.36	0.69			77En02
3916.41(2)	0^+	2			0.11			77En02
4074.67(1)	1^+	0	0.01(1)					77En02
		2	0.02(1)					77En02
4114.81(2)	2^+	0	0.17(8)	0.41				77En02
		2	0.53(11)	0.80				77En02
4624.40(2)	3^-	1	0.07(2)	0.21				77En02
		3	0.22(5)	0.46				77En02
4688.98(5)	4^+	1	0.01					77En02
		3	0.67(13)					77En02
4876.84(2)	3^+							
4889.76(2)	2^+							
5228.18(2)	0^+							
5322.51(3)	2^-	3		1.15				72Cr08
5380.99(4)	1^+	0	0.19(12)	0.23	0.30			77En02
		2	0.12(3)					77En02
5679.93(2)	$\langle 2,3\rangle^-$	1	0.33(9)	0.65				77En02
5689(1)*	5^-	3		3.12				72Cr08
5755.88(2)	1^-	1	0.39(18)	0.42				77En02
		3	$\langle 0.2\rangle$					77En02
5847.53(3)	0^+							
5998.10(8)	2^+							
6121.48(12)	2^+							
6168.86(3)	3^-	1	0.14(5)	0.25				77En02
		3	0.41(15)	0.71				77En02
6251.22(19)	4^+							
6251.68(9)	$\langle 1,3\rangle^-$	3		0.57				72Cr08
6342.49(10)	1^-	1		0.20				72Cr08
6421.42(12)	4^-	3		0.22				72Cr08
6428.12(8)	2^+							
6478.77(2)	$\langle 1,2\rangle^-$	1		0.91				72Cr08
6535(15)								
6639(1)	4^-	3		$\langle 1.64\rangle$				72Cr08
6685.33(3)	$\langle 0–3\rangle^-$	1		0.32				72Cr08
6729(2)	4^+							
6742(3)	2^+–4^+							
6828.82(18)	2^+	0		0.14				72Cr08
6847.91(7)	$\langle 1,2^+\rangle$							
6863.7(5)	5^-							
6890.0(5)	$\langle 3,4\rangle^+$							
6954.22(3)	2^-	1		0.21				72Cr08
7110.45(4)	3^-	1		0.13				72Cr08
		3		0.44				72Cr08
7164.46(17)	0^+–3^+							

(continued) **$^{34}_{16}$S**

E^* [keV]	J^π	L	S_n^+ eval	$G_{\ell j}$ (d,p)	S_p^- eval	$I_{s,0}$ [eVb]	$\Gamma_\circ$ [meV]	Ref.
7219.28(7)	1^-					204	920	78Be46
7248.1(1)*	2^+							
7270(2)	2^+–4^-							
7367.42(10)	$\langle 1,2\rangle^+$							
7392(1)	$\langle 4$–$6^+\rangle$							
7467.72(10)	0^+–3^+							
7552.69(8)	$\langle 1$–$3^-\rangle$							
7629.91(2)	3^-	1		0.98				72Cr08
7657(4)		3		$\langle 0.57\rangle$				72Cr08
7714(15)								
7730.79(15)	0^+–3^+			[0.1]				72Cr08
7753(9)	$\langle 0$–$3\rangle^-$	1		0.08				72Cr08
7781.22(6)	1^-	1		0.27		109	570	78Be46
7788(1)	6^-							
7795(8)	2^+							
7974.72(16)	$\langle 1,2^+\rangle$							
8020(5)	0^+							
8036.30(14)	1^-,2^+							
8083(1)	5^-							
8138.10(8)	1^-	1		0.26				72Cr08
8175.1(5)	$\langle 1,2^+\rangle$							
8185.46(13)	1^+					148	860	78Be46
8205.40(8)	1^-–4^+							
8255(16)	2^+							
8264(2)	2^+–6^+							
8293(2)	4							
8294.39(9)	0^+–3^-							
8369(1)	$\langle 5,7\rangle^-$							
8385.40(6)	1^-					81	490	78Be46
8425(2)	4^+							
8502(2)*	$\langle 4,6^+\rangle$							
8506.77(4)	1^-					82	520	78Be46
8615.74(4)	$\langle 2,3^+\rangle$							
8651(3)								
8657(7)	1^+					63	410	78Be46
8670(3)								
8702.35(13)	$\langle 1$–$3^+\rangle$							
8712(2)	2^+–4^+							
8727.63(8)	1^-,2^+							
8733(2)	3^-–5^-							
8782(2)								
8805.7(3)	$\langle 1,2^+\rangle$							
8874.02(8)	1^-–3^+							
8876(3)	2^+–4^+							
8942(3)								

(continued) **$^{34}_{16}$S**

E^* [keV]	J^π	L	S_n^+ eval	$G_{\ell j}$ (d,p)	S_p^- eval	$I_{s,0}$ [eVb]	$\Gamma_\circ$ [meV]	Ref.
8968(2)								
8990(10)								
9026.31(6)	$\langle 1,2^+ \rangle$							
9095(10)								
9158.71(3)	$\langle 1,2^+ \rangle$							
9208.04(6)	$\langle 1,2^+ \rangle$							
9478(4)	1^+					145	1130	78Be46
9546.09(7)	$\langle 1,2^+ \rangle$							
9598.41(8)								
9640(4)	1^-					448	3610	78Be46
9665.74(4)								
9711(5)	$\langle 1,2^+ \rangle$					61	500	78Be46
9801.88(10)	$\langle 1,2^+ \rangle$							
9836.70(6)								
9860(7)	1^+					75	630	78Be46
9933.35(13)	1^-							
9981(5)	1^-							
10092.21(5)								
10097(5)								
10142(5)								
10170(5)	1^-							
10170(5)	1^+					124	1110	78Be46
10179.59(6)	$\langle 1–3 \rangle$							
10201(5)								
10212.15(5)	$\langle 1–3 \rangle$							
10237(5)								
10250(5)	1^-							
10311.53(3)	2^+							
10386(5)								
10407(5)	2^+							
10447(5)								
10494(5)	1^-							
10529(5)								
10587(5)	1^-							
10617(5)								
10626(5)	1^-							
10650.1(2)								
10663(5)								
10670(5)	1^-							
10705(5)								
10768(5)	2^+							
10791(5)	1^-					74	750	78Be46
10803(6)	1^+							
10840.62(15)	3^-							
10869(5)								

(continued) **$^{34}_{16}$S**

E^*	J^π	L	S_n^+	$G_{\ell j}$	S_p^-	$I_{s,0}$	$\Gamma_\circ$	Ref.
[keV]			eval	(d,p)	eval	[eVb]	[meV]	
10895(5)								
10916(5)								
10931(5)	1^-							
10994(5)	2^+							
11015(5)	2^+							
11024.94(11)	1^-							
				72Cr08		78Be46	78Be46	Ref.
			77En02		77En02			Ref.

Additional data on this isotope can be found in [02En02, 01Ro27, 97Is02, 85Ra15, 81Fo05].
Abundance: 4.21(8) %.
* This state is preferably populated in the (α,^{2}He)-reaction [78Ja10].
Values S_n^+, S_p^- from [77En02] were obtained by averaging of data from 8 experimental works.
ℓ and $G_{\ell j}$ from the (d,p) reaction measured in one of these works [72Cr08] are given separately.
Values $I_{s,0}$ and $\Gamma_\circ$ from (γ,γ) experiment [78Be46] were used for calculating $B(M1)$ by assuming J^π=1^+.
Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [90En08, 98En04]. Part 2 **$^{34}_{16}$S**

E^*	J^π	$B(M1)$	$T_{1/2}$ or	Ref.		Branching ratios in percentage						
					E_f^*:	0	2128	3304	3916	4075	4114.8	4624.4
[keV]		[μ_N^2]	Γ_{cm}		J_f^π:	0^+	2^+	2^+	0^+	1^+	2^+	3^-
0	0^+		Stable	77En02								
2127.56(1)	2^+		325(9) fs	77En02		100						
				77En02								
3304.21(1)	2^+		135(10) fs	77En02		44.1(11)	55.9(11)					
				77En02								
3916.41(2)	0^+		1.11(18) ps	77En02			99.7(1)	0.3(1)				
4074.67(1)	1^+		<20 fs	77En02		50(3)	46(3)	4.4(4)				
				77En02								
4114.81(2)	2^+		70(10) fs	77En02		56(2)	44(2)	<0.4				
				77En02								
4624.40(2)	3^-		90(10) fs	77En02		0.40(10)	26(2)	74(2)		<0.10		
				77En02								
4688.98(5)	4^+		85(10) fs	77En02		<1	100	<2		<4		
				77En02								
4876.84(2)	3^+		<50 fs			<1.0	61(3)	39(3)		<4	<0.9	<0.2
4889.76(2)	2^+		<30 fs			32(3)	37(3)	31(3)		<0.7	<1.1	<0.3
5228.18(2)	0^+						<2	<2		96.1(7)	3.9(7)	<0.4
5322.51(3)	2^-		17(7) fs	72Cr08		<3.0	92(3)	<1.4		7.1(10)	<2.0	1.2(3)
5380.99(4)	1^+		<50 fs	77En02		25(3)	48(3)	19(2)		<1.3	8.4(9)	<0.7
				77En02								

(continued) **$^{34}_{16}$S**

E^*	J^π	$B(M1)$	$T_{1/2}$ or	Ref.	Branching ratios in percentage						
					E_f^*:	0	2128	3304	3916	4075	4114.8	4624.4
[keV]		[μ_N^2]	Γ_{cm}		J_f^π:	0^+	2^+	2^+	0^+	1^+	2^+	3^-
5679.93(2)	$\langle 2,3\rangle^-$		265(45) fs	77En02		<1	33(3)	49(3)		<0.2	1.7(4)	13(2)
5689(1)*	5^-		37(2) ps	72Cr08								48(2)
5755.88(2)	1^-			77En02		2.2(4)	75(2)	22(2)		<0.4	0.7(5)	<0.4
				77En02								
5847.53(3)	0^+						21(3)	64(3)		15(5)	<5.0	<1.3
5998.10(8)	2^+		<7 fs			18(3)	30(4)			33(6)		
6121.48(12)	2^+		<50 fs				21(5)	79(5)				
6168.86(3)	3^-		<9 fs	77En02			3.7(6)	76(3)		<0.8	4.1(7)	13(3)
				77En02								
6251.22(19)	4^+		270(55) fs									
6251.68(9)	$\langle 1,3\rangle^-$		0.42(+49-21) ps	72Cr08								70(5)
6342.49(10)	1^-		<25 fs	72Cr08		26(5)		74(5)				
6421.42(12)	4^-		<7 fs	72Cr08								7
6428.12(8)	2^+									30(4)		
6478.77(2)	$\langle 1,2\rangle^-$			72Cr08			29(3)	49(5)		5.0(5)		6.0(6)
6535(15)												
6639(1)	4^-		42(9) fs	72Cr08								70(2)
6685.33(3)	$\langle 0\text{–}3\rangle^-$			72Cr08								
6729(2)	4^+		<7 fs				x				x	
6742(3)	2^+–4^+						x				x	
6828.82(18)	2^+		<45 fs	72Cr08		x				x		
6847.91(7)	$\langle 1,2^+\rangle$					33(4)						
6863.7(5)	5^-		27(6) fs									24(2)
6890.0(5)	$\langle 3,4\rangle^+$		<15 fs				20.0(20)					
6954.22(3)	2^-			72Cr08			1.3(6)	38(4)			12(2)	
7110.45(4)	3^-		<7 fs	72Cr08			18(2)				5.1(14)	
				72Cr08								
7164.46(17)	0^+–3^+						31(8)			69(8)		
7219.28(7)	1^-	0.212	0.33(10) fs	78Be46		80.8(20)						
7248.1(1)*	2^+		14(6) fs				20					6.0
7270(2)	2^+–4^-											
7367.42(10)	$\langle 1,2\rangle^+$						40(6)		22(6)			
7392(1)	$\langle 4\text{–}6^+\rangle$		160(35) fs									
7467.72(10)	0^+–3^+									84(2)		
7552.69(8)	$\langle 1\text{–}3^-\rangle$							63(4)				
7629.91(2)	3^-		14(8) fs	72Cr08				50(3)			5.7(7)	40(3)
7657(4)				72Cr08								
7714(15)												
7730.79(15)	0^+–3^+			72Cr08			x	x				
7753(9)	$\langle 0\text{–}3\rangle^-$			72Cr08								
7781.22(6)	1^-		0.52(8) fs	78Be46		91(2)						
7788(1)	6^-		80(25) fs									
7795(8)	2^+					x						
7974.72(16)	$\langle 1,2^+\rangle$					54(8)	32(8)	14(7)				
8020(5)	0^+						x				x	

(continued) **$^{34}_{16}$S**

E^*	J^π	$B(M1)$	$T_{1/2}$ or	Ref.	Branching ratios in percentage						
					E_f^*:	0	2128	3304	3916	4075	4114.8	4624.4
[keV]		[μ_N^2]	Γ_{cm}		J_f^π:	0^+	2^+	2^+	0^+	1^+	2^+	3^-
8036.30(14)	1^-,2^+					51(6)						
8083(1)	5^-		44(9) fs									
8138.10(8)	1^-			72Cr08		60(4)	21(3)					
8175.1(5)	$\langle 1,2^+\rangle$					34(7)						
8185.46(13)	1^+	0.136	0.6(2) fs	78Be46		x	x					
8205.40(8)	1^-–4^+						76(5)					24(5)
8255(16)	2^+											
8264(2)	2^+–6^+											
8293(2)	4		<30 fs									
8294.39(9)	0^+–3^-						75(5)					
8369(1)	$\langle 5,7\rangle^-$		85(15) fs									
8385.40(6)	1^-		0.9(3) fs	78Be46		100						
8425(2)	4^+						x					x
8502(2)*	$\langle 4,6^+\rangle$		28(6) fs									
8506.77(4)	1^-		0.28(6) fs	78Be46		57(4)		36(4)			5.3(11)	
8615.74(4)	$\langle 2,3^+\rangle$						37(4)	8(1)		18(2)		3.0(7)
8651(3)												
8657(7)	1^+	0.055	1.1(7) fs	78Be46		100						
8670(3)												
8702.35(13)	$\langle 1$–$3^+\rangle$						51(7)					
8712(2)	2^+–4^+						x					
8727.63(8)	1^-,2^+					14(2)	7(2)					
8733(2)	3^-–5^-											47(5)
8782(2)												
8805.7(3)	$\langle 1,2^+\rangle$					32(5)		61(7)				
8874.02(8)	1^-–3^+						71(3)			14(2)	12(2)	
8876(3)	2^+–4^+						15(2)					
8942(3)							x	x				
8968(2)												
8990(10)							x					
9026.31(6)	$\langle 1,2^+\rangle$					62(8)						
9095(10)							x					
9158.71(3)	$\langle 1,2^+\rangle$									6(2)	68(5)	
9208.04(6)	$\langle 1,2^+\rangle$					20(3)						
9478(4)	1^+	0.115		78Be46		100						
9546.09(7)	$\langle 1,2^+\rangle$					37(5)		43(7)				
9598.41(8)												
9640(4)	1^-	0.349	0.12(2) fs	78Be46		100						
9665.74(4)							34(8)					
9711(5)	$\langle 1,2^+\rangle$	0.047		78Be46		100						
9801.88(10)	$\langle 1,2^+\rangle$						16(4)	57(7)	27(6)			
9836.70(6)							71(11)					
9860(7)	1^+	0.057	0.7(2) fs	78Be46		100						
9933.35(13)	1^-					15(3)						
9981(5)	1^-											

(continued) **$^{34}_{16}$S**

E^* [keV]	J^π	$B(M1)$ [μ_N^2]	$T_{1/2}$ or Γ_{cm}	Ref.	E_f^*: J_f^π:	0 0^+	Branching ratios in percentage 2128 2^+	3304 2^+	3916 0^+	4075 1^+	4114.8 2^+	4624.4 3^-
10092.21(5)												
10097(5)												
10142(5)												
10170(5)	1^-											
10170(5)	1^+	0.092	0.41(11) fs	78Be46								
10179.59(6)	⟨1–3⟩						53(10)					
10201(5)												
10212.15(5)	⟨1–3⟩						67(10)					
10237(5)												
10250(5)	1^-											
10311.53(3)	2^+									10(3)		
10386(5)												
10407(5)	2^+											
10447(5)												
10494(5)	1^-											
10529(5)												
10587(5)	1^-											
10617(5)												
10626(5)	1^-											
10650.1(2)												
10663(5)												
10670(5)	1^-											
10705(5)												
10768(5)	2^+											
10791(5)	1^-	0.052		78Be46								
10803(6)	1^+					100						
10840.62(15)	3^-											
10869(5)												
10895(5)												
10916(5)												
10931(5)	1^-											
10994(5)	2^+											
11015(5)	2^+											
11024.94(11)	1^-											
		78Be46		Ref.								
				Ref.								

Energy levels and branching ratios [90En08, 98En04]. Part 3 **$^{34}_{16}$S**

E^*	J^π	Branching ratios in percentage						
	E_f^*:	4689.0	4876.8	4889.8	5228.2	5322.5	5381.0	5679.9
[keV]	J_f^π:	4^+	3^+	2^+	0^+	2^-	1^+	$\langle 2,3\rangle^-$
4876.84(2)	3^+	<0.2						
4889.76(2)	2^+	<0.3						
5228.18(2)	0^+	<0.4	<1.0	<0.3				
5322.51(3)	2^-	<1.4	<0.7	<0.7				
5380.99(4)	1^+	<0.7	<0.7	<0.7				
5679.93(2)	$\langle 2,3\rangle^-$	<0.2	2.2(3)	0.8(2)				
5689(1)*	5^-	52(2)						
5755.88(2)	1^-	<0.4	<0.3	<0.3				
5847.53(3)	0^+	<1.7	<0.9	<0.9				
5998.10(8)	2^+		19(3)					
6168.86(3)	3^-	1.8(3)	<0.6	<0.8		2.0(10)		
6251.22(19)	4^+	54(5)	46(5)					
6251.68(9)	$\langle 1,3\rangle^-$							30(5)
6421.42(12)	4^-	30	63					
6428.12(8)	2^+	58(5)						
6478.77(2)	$\langle 1,2\rangle^-$					7.3(9)		1.4(2)
6742(3)	2^+–4^+	x						
6847.91(7)	$\langle 1,2^+\rangle$					67(4)		
6863.7(5)	5^-	55(3)						
6890.0(5)	$\langle 3,4\rangle^+$	80.0(20)						
6954.22(3)	2^-					35(4)		14(2)
7110.45(4)	3^-		70(2)					
7219.28(7)	1^-	15(2)		4.2(12)				
7248.1(1)*	2^+	69	5.0					
7270(2)	2^+–4^-							65(5)
7367.42(10)	$\langle 1,2\rangle^+$		38(8)					
7552.69(8)	$\langle 1$–$3^-\rangle$					31(4)		
7629.91(2)	3^-	4.2(6)						
7657(4)			x					
8175.1(5)	$\langle 1,2^+\rangle$				66(7)			
8293(2)	4		x					
8425(2)	4^+		x					
8502(2)*	$\langle 4,6^+\rangle$	30(3)						
8506.77(4)	1^-					1.5(10)		
8615.74(4)	$\langle 2,3^+\rangle$		12(2)					
8670(3)			x					
8702.35(13)	$\langle 1$–$3^+\rangle$			12(3)				8(5)
8712(2)	2^+–4^+	x						
8727.63(8)	1^-,2^+				16(4)			
8876(3)	2^+–4^+		56(5)					
9026.31(6)	$\langle 1,2^+\rangle$						38(8)	
10179.59(6)	$\langle 1$–$3\rangle$							47(10)
10212.15(5)	$\langle 1$–$3\rangle$							33(10)
10311.53(3)	2^+					34(5)		

(continued) **$^{34}_{16}$S**

E^*	J^π		Branching ratios in percentage						
		E_f^*:	4689.0	4876.8	4889.8	5228.2	5322.5	5381.0	5679.9
[keV]		J_f^π:	4^+	3^+	2^+	0^+	2^-	1^+	$\langle 2,3\rangle^-$
10650.1(2)								39(10)	
10840.62(15)	3^-		59(6)						

Energy levels and branching ratios [90En08, 98En04]. Part 4 **$^{34}_{16}$S**

E^*	J^π		Branching ratios in percentage						
		E_f^*:	5689	5755.9	5847.5	5998.1	6121.5	6168.9	6251.2
[keV]		J_f^π:	5^-	1^-	0^+	2^+	2^+	3^-	4^+
6428.12(8)	2^+						12(3)		
6478.77(2)	$\langle 1,2\rangle^-$			0.8(1)	1.3(2)				
6639(1)	4^-		30(2)						
6685.33(3)	$\langle 0–3\rangle^-$			100					
6863.7(5)	5^-		21(2)						
7110.45(4)	3^-						1.1(3)	5.6(7)	
7270(2)	2^+–4^-								35(5)
7392(1)	$\langle 4–6^+\rangle$		80(3)						7.0(20)
7467.72(10)	0^+–3^+					12(2)			
7788(1)	6^-		83						9.0
7795(8)	2^+								x
8083(1)	5^-		26(3)						
8138.10(8)	1^-				11(2)				
8264(2)	2^+–6^+		x						x
8293(2)	4		x						
8369(1)	$\langle 5,7\rangle^-$		100						
8502(2)*	$\langle 4,6^+\rangle$		70(3)						
8702.35(13)	$\langle 1–3^+\rangle$			14(4)					
8733(2)	3^-–5^-		53(5)						
8782(2)			x						
8876(3)	2^+–4^+								29(4)
8968(2)			x						
9158.71(3)	$\langle 1,2^+\rangle$				26(5)				
9598.41(8)							79(3)		
11015(5)	2^+			39(10)			41(12)		

Energy levels and branching ratios [90En08, 98En04]. Part 5 **$^{34}_{16}$S**

E^*	J^π		Branching ratios in percentage						
		E_f^*:	6251.7	6342.5	6421.4	6428.1	6478.8	6828.8	6847.9
[keV]		J_f^π:	$\langle 1,3\rangle^-$	1^-	4^-	2^+	$\langle 1,2\rangle^-$	2^+	$\langle 1,2^+\rangle$
7110.45(4)	3^-							0.3(1)	
7467.72(10)	0^+–3^+						4.2(13)		
7552.69(8)	$\langle 1$–$3^-\rangle$			6.4(9)					
7657(4)			x						
7781.22(6)	1^-					9(2)			
8083(1)	5^-				12(2)				
8138.10(8)	1^-			8(2)					
8294.39(9)	0^+–3^-			25(5)					
8615.74(4)	$\langle 2,3^+\rangle$		22(4)						
8805.7(3)	$\langle 1,2^+\rangle$						7(5)		
8942(3)			x						
9665.74(4)									66(8)
9836.70(6)									29(11)
10092.21(5)					60(11)				

Energy levels and branching ratios [90En08, 98En04]. Part 6 **$^{34}_{16}$S**

E^*	J^π		Branching ratios in percentage						
		E_f^*:	6863.7	7110.4	7219.3	7248.0	7367.4	7467.7	7629.9
[keV]		J_f^π:	5^-	3^-	1^-	2^+	$\langle 1,2\rangle^+$	$\langle 0^+$–$3^+\rangle$	3^-
7392(1)	$\langle 4$–$6^+\rangle$		13(2)						
7788(1)	6^-		8.0						
8036.30(14)	1^-,2^+			49(6)					
8083(1)	5^-		62(3)						
8651(3)			x						
8727.63(8)	1^-,2^+			63(3)					
8874.02(8)	1^-–3^+								3.1(7)
8968(2)			x						
9208.04(6)	$\langle 1,2^+\rangle$					45(6)	33(5)		
9546.09(7)	$\langle 1,2^+\rangle$				5(4)				
10311.53(3)	2^+							32(7)	

Energy levels and branching ratios [90En08, 98En04]. Part 7 **$^{34}_{16}$S**

E^*	J^π		Branching ratios in percentage					
		E_f^*:	7730.8	7781.2	7788	8138.1	8185.5	8385.4
[keV]		J_f^π:	$\langle 0^+$–$3^+\rangle$	1^-	6^-	1^-	1^+	1^-
8702.35(13)	$\langle 1$–$3^+\rangle$						15(2)	
8968(2)					x			

(continued) **$^{34}_{16}$S**

E^*	J^π			Branching ratios in percentage				
		E_f^*:	7730.8	7781.2	7788	8138.1	8185.5	8385.4
[keV]		J_f^π:	$\langle 0^+$–$3^+\rangle$	1^-	6^-	1^-	1^+	1^-
9933.35(13)	1^-			31(9)		33(9)		
10311.53(3)	2^+					9(3)		15(4)
10650.1(2)			61(10)					

Energy levels and branching ratios [90En08, 98En04]. Part 8 **$^{34}_{16}$S**

E^*	J^π			Branching ratios in percentage				
		E_f^*:	8615.7	8727.6	8874.0	9026.3	9208.0	10092
[keV]		J_f^π:	$\langle 2,3^+\rangle$	$\langle 1^-,2^+\rangle$	$\langle 1^-$–$3^+\rangle$	$\langle 1,2^+\rangle$	$\langle 1,2^+\rangle$	
9208.04(6)	$\langle 1,2^+\rangle$				2.4(5)			
9546.09(7)	$\langle 1,2^+\rangle$				15(2)			
9598.41(8)			21(3)					
9933.35(13)	1^-						21(3)	
10092.21(5)				40(11)				
10840.62(15)	3^-							41(6)
11015(5)	2^+					20(7)		

Energy levels and branching ratios [90En08, 98En04, 77Ab07]. **$^{35}_{16}$S**

E^*	$2J^\pi$	$2T$	S_n^+	S'	ℓ	S_N	S'	S_N	L	σ (p,τ)	$T_{1/2}$ or	Ref.
[keV]			eval	(d,p)		(d,p)	(d,p)	(n,γ)	(p,τ)	μb/sr	Γ_{cm}	
0	3^+		0.38(7)	2.1	2	0.56	1.85		0,2,4	26.5	87.51(12) d	77En02
1572.4(1)	1^+		0.21(4)	0.31	0	0.27			0+2	19	2.3(3) ps	77En02
1991.3(1)	7^-			6.8	3	1.16	5.05		3+5	1.5	1.02(5) ns	77Ab07
2347.8(1)	3^-		0.4(1)	2.0	1	0.56	2.00	0.48			0.89(12) ps	77En02
2717.1(2)	5^+			0.09	2	0.03			0,2,4	53.9	70(25) fs	77Ab07
2938.6(1)	3^+			0.38	2	0.10			0,2,4	29.2		77Ab07
3421.0(10)	5^+			0.21	2	0.04			0,2,4	81.5	<70 fs	77Ab07
3558.1(1)	3^-,5^-											
3597(2)	1^+–7^+					0.10			2+4	27.8		77Ab07
3675(10)												
3802.0(1)	3^-			0.36	1			0.08			25(18) fs	90En08
3818.1(11)									3	2.6		75Gu15
3886(2)	3^-,5											
3907(10)												
4021.4(5)												
4028(2)	1–5^+								2	2.9		75Gu15
4105.6(2)	1^+–5^+								0+2	8.8		75Gu15

(continued) **$^{35}_{16}$S**

E^* [keV]	$2J^\pi$	$2T$	S_n^+ eval	S' (d,p)	ℓ	S_N (d,p)	S' (d,p)	S_N (n,γ)	L (p,τ)	σ (p,τ) μb/sr	$T_{1/2}$ or Γ_{cm}	Ref.
4180(3)												
4189.3(1)	1^-			0.28	1	0.15		0.15	2,3	5.6	<55 fs	77Ab07
4302(4)	$\langle 1–5\rangle^+$					0.09			$\langle 2\rangle$	2.8	<35 fs	77Ab07
4477.6(1)	$\langle 1–5\rangle^+$			0.44	3				2	2.7		90En08
4567(6)	$\langle 1–5\rangle^+$								0+2	10.7	<65 fs	75Gu15
4617(10)									$\langle 2,1\rangle$	13.2		75Gu15
4839(6)	$\langle 1–9\rangle^+$								2	15.9		75Gu15
4903.3(1)	1^-			1.6	1	0.48		0.49				77Ab07
4963.07(10)	3^-			0.87	1	0.19		0.19	$\langle 0+2\rangle$	17.3		77Ab07
4990(10)	$\langle 1–5\rangle^+$								0+2	19.5		75Gu15
5058(8)	7^-			0.24	3	0.03						77Ab07
5127(8)	$\langle 1–9\rangle^+$								2	3.5		75Gu15
5344(3)	$\langle 1–11\rangle^-$								3	2.2		75Gu15
5475(10)												
5545(6)									$\langle 3\rangle$	6.2		75Gu15
5752.5(8)	$\langle 1–7\rangle^+$								2	10.1		75Gu15
5841.30(14)												
5915(10)									$\langle 2,3\rangle$	3.4		75Gu15
5980(10)												
6018.6(6)	$\langle 1–5^+\rangle$											
6078.47(10)	$\langle 1,3\rangle^-$			0.17	1							84Pi03
6129(10)	$\langle 1–5\rangle^+$								0+2	7.8		75Gu15
6293.92(12)	$\langle 1–5^+\rangle$											
6334(8)												
6355.6(8)	$\langle 1–5^+\rangle$								$\langle 2\rangle$	4.8		75Gu15
6419.9(11)												
6446(8)												
6496(8)												
6538(2)												
6545(2)												
6584(8)												
6629.2(6)	$\langle 1–5^+\rangle$								$\langle 3\rangle$	7.7		75Gu15
6684(8)	$\langle 1–9\rangle^+$								2	6.7		75Gu15
6761.0(12)												
6891(2)												
7151									$\langle 4\rangle$	3.3		75Gu15
7375												
7712									4	4.8		75Gu15
7770										5.5		75Gu15
8103									$\langle 1+3\rangle$	10.6		75Gu15
8160									$\langle 1\rangle$	8.4		75Gu15
8430									2	5.7		75Gu15
9155(10)	$\langle 1–9\rangle^+$	$\langle 5\rangle$							2	10.0		75Gu15

(continued) **$^{35}_{16}$S**

E^*	$2J^\pi$	$2T$	S_n^+	S'	ℓ	S_N	S'	S_N	L	σ (p,τ)	$T_{1/2}$ or	Ref.
[keV]			eval	(d,p)		(d,p)	(d,p)	(n,γ)	(p,τ)	μb/sr	Γ_{cm}	
				84Pi03		77Ab07		97Be42	75Gu15	75Gu15		Ref.
							71Me12					Ref.

Additional data on this isotope can be found in [97Be42, 85Ra15].
Values S_n^+ in the first column are evaluated values from [77En02]; $S'=(2J+1)S_n^+$ and $S_N=S_{dp}$ are the experimental values from [90En08, 84Pi03] and [77Ab07], respectively;
values S' from the (d,p) stripping reaction measured in [71Me12] are given for comparison; spectroscopic factors S_N (n,γ) from direct the capture of thermal neutrons were obtained in [97Be42] from γ-ray spectra and capture cross section measurements.
Cross section of two-nucleon pickup σ (p,τ) was measured in [75Gu15].

Energy levels and branching ratios [90En08, 98En04, 77Ab07]. Part 2 **$^{35}_{16}$S**

E^*	$2J^\pi$			Branching ratios in percentage						
		E_f^*:	0	1572	1991	2348	2717	2938.6	3558.1	3801.9
[keV]		$2J_f^\pi$:	3^+	1^+	7^-	3^-	5^+	3^+	$\langle 3^-,5\rangle$	3^-
1572.4(1)	1^+		100							
1991.3(1)	7^-		100	<2						
2347.8(1)	3^-		75(1)	25(1)	<0.1					
2717.1(2)	5^+		94(3)		<6	6(3)				
2938.6(1)	3^+		100	<2	<2	<2	<2			
3421.0(10)	5^+		100	<2	<2	<2				
3558.1(1)	$3^-,5^-$		10(2)	<5	55(3)	30(2)		5.0(10)		
3597(2)	1^+–7^+		100	<5	<5	<5	<5	<5		
3802.0(1)	3^-		48(3)	44(3)	<0.5	7.0(10)	0.8(2)	0.5(2)	<0.3	
3818.1(11)			<2	<2	100	<2	<2	<2		
3886(2)	$3^-,5$		15(3)		45(5)	40(4)				
4021.4(5)					100					
4028(2)	1–5^+			34(6)		33(4)		33(4)		
4105.6(2)	1^+–5^+		87(6)	<5	<7	<5		13(6)		
4180(3)			82(5)	18(5)						
4189.3(1)	1^-		52(3)	4(2)	<2	40(2)	<2	4.0(10)	<2	<1
4302(4)	$\langle 1$–$5\rangle^+$		41(5)			59(5)				
4477.6(1)	$\langle 1$–$5\rangle^+$			49(7)		51(7)				
4903.3(1)	1^-		25(2)	51(2)	<0.3	21(2)	<0.3	3.0(10)	<0.3	0.20(10)
4963.07(10)	3^-		28(2)	53(3)	2.0(10)	10.1(10)	<0.3		6.0(10)	0.50(10)
5752.5(8)	$\langle 1$–$7\rangle^+$		100							
5841.30(14)				100						
6018.6(6)	$\langle 1$–$5^+\rangle$		100							
6078.47(10)	$\langle 1,3\rangle^-$		82(6)					18(6)		
6293.92(12)	$\langle 1$–$5^+\rangle$		100							
6355.6(8)	$\langle 1$–$5^+\rangle$		100							
6419.9(11)			100							

(continued) **$^{35}_{16}$S**

E^*	$2J^\pi$		Branching ratios in percentage							
		E_f^*:	0	1572	1991	2348	2717	2938.6	3558.1	3801.9
[keV]		$2J_f^\pi$:	3^+	1^+	7^-	3^-	5^+	3^+	$\langle 3^-,5\rangle$	3^-
6629.2(6)	$\langle 1\text{–}5^+\rangle$		100							
6761.0(12)			100							

Energy levels and branching ratios [90En08, 98En04]. **$^{36}_{16}$S**

E^*	J^π	L	S_p^-	C^2S	$T_{1/2}$ or	Ref.	Branching ratios in percentage					
							E_f^*:	0	3291	4193	4575	5021
[keV]			eval	(d,τ)	Γ_{cm}		J_f^π:	0^+	2^+	3^-	2^+	4^-
0	0^+	0	1.7(3)	1.06	Stable	77En02						
3290.9(3)	2^+	2	1.3(2)	0.86	75(20) fs	77En02		100				
3346(4)	0^+	2	<0.13	<0.10	8.8(2) ns	77En02		x				
4192.7(5)	3^-		small		0.76(31) ps	77En02			100			
4523.0(6)	1^+	0	0.94(24)	0.75	18(9) fs	77En02		75(10)	25(10)			
4575.2(7)	2^+	0	0.31(8)	0.25	55(11) fs	77En02			100			
5021.5(3)	4^-								3(2)	97(2)		
5206.1(3)	5^-									19(6)		81(6)
5251.2(10)	3^-				70(30) fs				72(2)	28(2)		
5338(3)												
5391.4(9)	2^+				>210 fs			85(8)			15(8)	
5462(3)	3^+											
5509.1(5)	$2\text{–}4^+$				190(40) fs				66(8)	34(8)		
5573.1(7)	1^-				<140 fs				100			
5830.9(7)	3^-								27.7(13)	56(2)	7.1(5)	8.5(5)
6186.9(8)	3^-				55(20) fs				75(8)	25(8)		
6225.2(10)	2^+				<20 fs				24(10)		76(10)	
6350(3)												
6472(3)	1^-											
6514.4(4)	4^+	2		0.19	<210 fs	70Gr02				100		
6553(3)												
7120(14)	$1,2^+$	2		0.44	<210 fs	70Gr02		72(5)	8(5)		20(5)	
7271.9(3)	$3\text{–}5^-$									22(5)		13(2)
7710(25)												
			77En02	70Gr02		Ref.						

Additional data on this isotope can be found in [02Li46, 01Ro27, 97Is02, 94Fo04, 90Ho19].
Abundance: 0.02(1) %.
Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [90En08, 98En04]. Part 2 **$^{36}_{16}$S**

E^*	J^π	Branching ratios in percentage				
		E_f^*:	5206.1	5251.2	5830.9	6514.4
[keV]		J_f^π:	5^-	3^-	3^-	4^+
5830.9(7)	3^-			0.6(2)		
7271.9(3)	$3–5^-$		6(2)	41(3)	5(2)	13(2)

Energy levels and branching ratios [90En08, 98En04]. **$^{37}_{16}$S**

E^*	$2J^\pi$	σ (d,p)	$G_{\ell j}$	S'	S'	S'	S_N	Ref.
[keV]		μb/sr	(d,p)	(d,p)	(d,p)	(d,p)	(n,γ)	
0	7^-	10347	5.54	7.33	6.16	4.0		89Ec01 90Pi05
646.18(1)	3^-	7133	1.75	2.80	2.62	2.2	0.54	89Ec01 90Pi05
1397.5(2)	3^+	292	0.13	0.21	0.22	0.10		89Ec01 90Pi05
1991.9(1)	3^-	425	0.13	0.30	0.15	0.11	0.19	89Ec01 90Pi05
2022.9(1)	7^-	155	0.05		0.08	0.03		89Ec01
2514.8(3)	5^-	303	0.14	0.27	0.14	0.10		89Ec01 90Pi05
2637.9(1)	1^-	3406	0.97	1.66	1.54	0.94	0.92	89Ec01 90Pi05
2776.3(7)								
2978(15)								
3120(2)	9^+	194	0.12			0.09		89Ec01
3261.9(1)	3^-	1089	0.34	0.57	0.60	0.31		89Ec01 90Pi05
3355.4(4)		280	0.12	0.12		0.09		89Ec01 90Pi05
3442.1(4)	7^-	432	0.16	0.60		0.12		89Ec01 90Pi05
3492.7(1)	3^-	416	0.18	0.34	0.28	0.14		89Ec01 90Pi05
3555(2)	$\langle 3^-,3^+\rangle$	232	0.10					89Ec01
3605(2)	$\langle 1^-,3^+\rangle$	166	0.09					89Ec01
3666(2)	$\langle 3\rangle$	175	0.08					89Ec01
3918(2)	$\langle 1\rangle$	58	0.03					89Ec01
3967(2)	$\langle 3\rangle$	31	0.02					89Ec01
4008(2)	1	224	0.13					89Ec01
4072(2)	$\langle 3\rangle$	58	0.03					89Ec01
4147(2)								90Pi05
4226.3								
4368(2)	$\langle 5\rangle$	72	0.03					89Ec01
4407.7(26)	$5^-,9^+$	537	0.16					89Ec01 84Th08
4471(2)	$\langle 3\rangle$	180	0.19					89Ec01
4492(2)	$\langle 3\rangle$	158	0.22					89Ec01
4548(2)	$\langle 3\rangle$	177	0.27					89Ec01
4675(2)	$\langle 7^-,9^+\rangle$	114	0.035					89Ec01
4754(2)	$\langle 7^-,9^+\rangle$	149	0.047					89Ec01
4812.8(35)								84Th08
4858(2)	5^-	480	0.13			0.11		89Ec01
4880(2)		705	0.22					89Ec01
4893(2)		incl						

(continued) **$^{37}_{16}$S**

E^* [keV]	$2J^\pi$	σ (d,p) μb/sr	$G_{\ell j}$ (d,p)	S' (d,p)	S' (d,p)	S' (d,p)	S_N (n,γ)	Ref.
5054(2)	9^+,$\langle 7^+\rangle$	156	0.07			$\langle 0.06\rangle$		89Ec01
5090(2)	9^+,$\langle 7^+\rangle$	308	0.11			0.09		89Ec01
5122(2)	9^+,$\langle 7^+\rangle$	147	0.07			0.06		89Ec01
5505(2)	5^-	2804	0.94			0.80		89Ec01
5666(2)	5^-	2637	0.86			0.68		89Ec01
5720(2)	5^-	1251	0.41			0.35		89Ec01
		89Ec01	89Ec01		84Th08		97Be42	Ref.
				90Pi05		90En02		Ref.

Additional data on this isotope can be found in [01Gu10, 97Be42, 95Be55, 84Ra09].

$T_{1/2}$=5.05(2) min is given for the ground state in [04Nu0A]. The first two columns contain data on the (dp) reaction from [89Ec01], $G_{\ell j}$ is the spectroscopic strength normalized to give $(2J_f+1)/(2J_i+1)$ for a pure single-particle transition in an empty subshell.

Three other columns show spectroscopicfactors $S'=(2J+1)S_n^+$ obtained in two independent measurements [90Pi05] and [84Th08] as well as performed in [90En02] recalculation of $G_{\ell j}$ [89Ec01] into the usual S'.

Spectroscopic factors S_N (n,γ) from the direct capture of thermal neutrons were obtained in [97Be42] from γ-ray spectra and capture cross section measurements.

Energy levels and branching ratios [90En08, 98En04]. Part 2 **$^{37}_{16}$S**

E^* [keV]	$2J^\pi$	E_f^*: $2J_f^\pi$:	Branching ratios in percentage 0 7^-	646 3^-	2023 7^-
646.18(1)	3^-		100		
1397.5(2)	3^+			100	
1991.9(1)	3^-		≈24	≈76	
2022.9(1)	7^-		≈38	≈62	
2637.9(1)	1^-			100	
3261.9(1)	3^-			66(5)	34(5)
3492.7(1)	3^-				100