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		History	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu	NDS 109, 1655 (2008)	1-Apr-2008

Data set based on the XUNDL data set compiled by B. Singh (McMaster) April 26, 2008.

Compiled (unevaluated) dataset from 2008Al12: Eur Phys J A (2008) (in press, published online April 21, 2008, Al-Khatib et al.); and 2007Al37: Acta Phys Pol B38, 1431 (2007).

2008A112,2007A137: E=205 MeV beam provided by ATLAS accelerator at Argonne. Measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ ,  $\gamma\gamma(\theta)$ (DCO) using GAMMASPHERE array of 100 Compton-suppressed Ge detectors. 2007A137 is a preliminary conference report from the authors of 2008A112.

Complete details of data e.g. gamma-ray energies, relative intensities, DCO's, etc. are not available in the publication; such data are listed by 2008A112 only for a few transitions in two irregular (possibly non-collective) structures.

E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @
0.0	0+	4298.5 <sup>d</sup> 13	$(12^{+})$	6541.7 <sup>h</sup> 22	$(17^{+})$	9105.9 <i>f</i> 19	23(-)
354.2 <mark>&amp;</mark> 8	$2^{+}$	4421.1 <mark>8</mark> 14	12(-)	6553.0 <sup>k</sup> 14	17 <sup>(+)</sup>	9374.9 <sup>e</sup> 19	(23-)
846.3 <sup>i</sup> 8	2+	4573.6 <sup>b</sup> 13	$13^{(-)}$	6740.6 <sup>8</sup> 17	18 <sup>(-)</sup>	9483.1 <sup>k</sup> 16	23 <sup>(+)</sup>
879.2 <sup>&amp;</sup> 10	4+	4599.3 <sup><i>f</i></sup> 15	$13^{(-)}$	6828.2 <sup>d</sup> 17	$(18^{+})$	9648 <sup>‡</sup> 3	
1247.7 <mark>h</mark> 10	3+	4612.5 <sup>a</sup> 14	$14^{(+)}$	6984.3 <sup>j</sup> 15	18 <sup>(+)</sup>	9657.0 16	(24 <sup>+</sup> )
1437.4 <sup>i</sup> 9	4+	4741.6 <sup>h</sup> 17	$(13^{+})$	7019.5 <sup>°</sup> 20	(18 <sup>-</sup> )	9668 <sup>‡</sup> 3	
1548.7 <mark>&amp;</mark> 11	6+	4758.8 <sup>e</sup> 14	(13 <sup>-</sup> )	7031.4 <sup><i>f</i></sup> 17	19 <sup>(-)</sup>	9675.1 <sup>8</sup> 19	$24^{(-)}$
1836.9 <sup>h</sup> 10	5+	4809.1 17		7050.4 20	(18 <sup>-</sup> )	9760.8 <sup>b</sup> 25	(23-)
2143.1 <sup><i>i</i></sup> 11	6+	4837.2 15		7118.0 <sup>1</sup> 15	(18 <sup>+</sup> )	9926.8 <sup>j</sup> 16	24 <sup>(+)</sup>
2226.9 <sup>b</sup> 12	$5^{(-)}$	4874.8 <i>14</i>		7218.9 16	(18 <sup>+</sup> )	9994.0 20	
2331.4 <sup>&amp;</sup> 12	8+	5025.8 14		7395.3 <sup>e</sup> 17	(19 <sup>-</sup> )	9996.8 <sup>a</sup> 21	24 <sup>(+)</sup>
2574.5 <sup>h</sup> 11	7+	5048.8 <sup>j</sup> 13	$(12^{+})$	7432.7 <sup>k</sup> 14	19 <sup>(+)</sup>	10088.3 <sup>d</sup> 22	(24 <sup>+</sup> )
2578.8 <mark>8</mark> 12	6(-)	5067.3 <sup>c</sup> 15	$14^{(-)}$	7480.6 <sup>b</sup> 20	(19 <sup>-</sup> )	10088.4 <sup><b>#</b></sup> 21	
2625.2 <sup>b</sup> 12	$7^{-}$	5113.6 <sup>d</sup> 14	$(14^{+})$	7524.2 <sup>a</sup> 15	$20^{(+)}$	10123.0 <sup>C</sup> 25	(24 <sup>-</sup> )
2676.0 <sup>f</sup> 12	$7^{(-)}$	5181.9 <sup>g</sup> 15	$14^{(-)}$	7552.7 <sup>h</sup> 25	(19 <sup>+</sup> )	10342.4 <sup><i>f</i></sup> 19	$25^{(-)}$
2809.3 <sup>c</sup> 13	8-	5289.8 <sup>k</sup> 13	13 <sup>(+)</sup>	7626.1 <mark>8</mark> 18	20(-)	10428.0 16	(25)
2911.2 <sup>i</sup> 13	8+	5431.8 <sup>1</sup> 14	$(14^{+})$	7810.7 <mark>d</mark> 16	(20 <sup>+</sup> )	10537.9 <sup>e</sup> 20	(25 <sup>-</sup> )
3095.8 <mark>8</mark> 13	8(-)	5434.0 <sup><i>f</i></sup> 16	$15^{(-)}$	7928.4 <sup>j</sup> 15	20 <sup>(+)</sup>	10800 <sup>‡</sup> 3	
3111.5 <sup>b</sup> 12	9-	5462.1 <sup>b</sup> 14	(15 <sup>-</sup> )	7939.5 <sup>f</sup> 18	21 <sup>(-)</sup>	10809.8 17	(26 <sup>+</sup> )
3148.0 <sup><i>f</i></sup> 13	9(-)	5465.8 <sup>a</sup> 14	16 <sup>(+)</sup>	8070.7 <sup>1</sup> 15	(20+)	10836 <sup>‡</sup> <i>3</i>	
3171.4 <sup>&amp;</sup> <i>12</i>	$10^{+}$	5518.3 <i>13</i>	14	8083.0 <sup>1</sup> 15	(20 <sup>+</sup> )	10896.1 <sup>g</sup> 19	$26^{(-)}$
3273.6 <sup>e</sup> 14	9(-)	5551.2 <sup>j</sup> 13	$14^{(+)}$	8093.5 <sup>c</sup> 20	(20 <sup>-</sup> )	10929.2 17	(26 <sup>+</sup> )
3343.7 <sup>h</sup> 14	(9 <sup>+</sup> )	5590.7 <sup>h</sup> 20	$(15^{+})$	8100.0 16		11054.1 <i>19</i>	(26)
3461.9 <sup>c</sup> 13	$10^{(-)}$	5658.8 <mark>°</mark> 15	(15 <sup>-</sup> )	8355.6 <sup>e</sup> 19	(21 <sup>-</sup> )	11239.5 <sup>a</sup> 23	(26 <sup>+</sup> )
3502.5 13	$(10^{+})$	5826.9 <sup>k</sup> 13	$15^{(+)}$	8364.8 <sup>k</sup> 15	$21^{(+)}$	11258.2 <sup>#</sup> 23	
3557.0 15		5937.2 <sup>d</sup> 16	$(16^{+})$	8483.4 17		11265 <sup>°</sup> 3	(26 <sup>-</sup> )
3668.9 <sup>i</sup> 15	$(10^{+})$	5973.7 <mark>8</mark> 16	$16^{(-)}$	8522.2 <sup>8</sup> 18	$22^{(-)}$	11384.9 <sup>d</sup> 24	(26 <sup>+</sup> )
3717.4 <mark>8</mark> <i>13</i>	$10^{(-)}$	6011.3 <sup>c</sup> 18	(16 <sup>-</sup> )	8564 <sup>h</sup> 3	(21+)	11473.0 17	(27)
3786.6 <sup>b</sup> 13	$11^{(-)}$	6134.7 <sup><i>f</i></sup> 17	$17^{(-)}$	8569.8 <sup>b</sup> 22	(21 <sup>-</sup> )	11553.9 <sup>ƒ</sup> 19	$27^{(-)}$
3823.0 <sup>f</sup> 13	$11^{(-)}$	6153.2 <sup>j</sup> 14	$16^{(+)}$	8722.4 <sup>a</sup> 18	22 <sup>(+)</sup>	11623.9 20	(27)
3882.9 <sup>a</sup> 13	$12^{(+)}$	6255.3 <sup>1</sup> 14	$(16^{+})$	8859.7 <sup>1</sup> 15	(22 <sup>+</sup> )	11738.5 <i>19</i>	(27 <sup>-</sup> )
3955.5 <mark>°</mark> 14	$(11^{-})$	6304.7 16	$(16^{+})$	8899.0 <sup>d</sup> 19	(22+)	11781.0 22	
4002.6 <sup>h</sup> 14	$(11^{+})$	6437.7 <sup>b</sup> 17	(17 <sup>-</sup> )	8911.3 <sup>j</sup> 16	$22^{(+)}$	11821.5 18	(28 <sup>+</sup> )
4018.1 13	(10+)	6438.9 <sup>a</sup> 15	$18^{(+)}$	9047.4 17		11869.0 <i>19</i>	(28)
4215.5 <sup>c</sup> 13	12(-)	6534.9 <sup>e</sup> 15	(17-)	9083.6 <sup>c</sup> 23	(22 <sup>-</sup> )	12169.0 18	(28)
				Continued of	on next p	age (footnotes at	t end of table)

#### <sup>124</sup>Xe Levels

<sup>82</sup> Se( <sup>48</sup> Ca,6nγ)	2008Al12,2007Al37	(continued)
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#### <sup>124</sup>Xe Levels (continued)

E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @	E(level) <sup>†</sup>	J <sup>π</sup> @
12197.1 <sup>g</sup> 20 12333.0 20	(28 <sup>-</sup> )	12593.9 20 12721.3 <i>19</i>	(29) (29)	13577.2 <sup><i>f</i></sup> 22 13638.1 21	(31 <sup>-</sup> ) (31)	15036.1 22 15177.9 21	(33) (34)
12359.5 <sup><i>f</i></sup> 20 12463.6 <sup><i>a</i></sup> 25 12491.6 18 12517 <sup><i>c</i></sup> 3	(29 <sup>-</sup> ) (28 <sup>+</sup> ) (29) (28 <sup>-</sup> )	12772.6 20 12992.8 21 13304.6 19 13317.0 21	(30) (30) (30)	13856.6 <i>19</i> 14049.6 <i>19</i> 14777.7 <i>21</i> 14813.0 <i>21</i>	(31) (32) (33) (32)	16384.5 24 16512.1 23 16528.7 24	

<sup>†</sup> From least-squares fit to  $E\gamma$ 's (by the compiler).

<sup>‡</sup> Extension of quasi-gamma band.

<sup>#</sup> Fork structure of band based on  $12^{(+)}$ .

<sup>@</sup> From Adopted Levels.

& Band(A): The g.s. band.

<sup>a</sup> Band(B): Band based on 12<sup>+</sup>. Continuation of g.s. band.

<sup>b</sup> Band(C): Band based on 5<sup>-</sup>,  $\alpha$ =1.

<sup>c</sup> Band(c): Band based on 8<sup>-</sup>,  $\alpha$ =0.

<sup>d</sup> Band(D): Band based on  $12^+$ .

<sup>*e*</sup> Band(E): Band based on  $9^-$ .

<sup>*f*</sup> Band(F): Band based on 7<sup>-</sup>,  $\alpha$ =1.

<sup>g</sup> Band(f): Band based on  $6^-$ ,  $\alpha = 0$ .

<sup>*h*</sup> Band(G): Quasi  $\gamma$ -band,  $\alpha$ =1.

<sup>*i*</sup> Band(g): Quasi  $\gamma$ -band,  $\alpha$ =0.

<sup>*j*</sup> Band(H): Band based on  $12^+$ ,  $\alpha=0$ .

<sup>*k*</sup> Band(h): Band based on  $12^{+}$ ,  $\alpha = 1$ .

<sup>*l*</sup> Band(I): Band based on 14<sup>+</sup>.

#### $\gamma(^{124}\text{Xe})$

The DCO ratios correspond to gates on  $\Delta J=2$ , quadrupole transitions and expected DCO=1.0 for  $\Delta J=2$ , quadrupole and 0.55 for  $\Delta J=1$ , dipole transitions.

$E_{\gamma}$	$I_{\gamma}$	$E_i(level)$	$\mathbf{J}_i^{\pi}$	$\mathbf{E}_f \qquad \mathbf{J}_f^{\pi}$	Mult. <sup>†</sup>	Comments
130.4	1.24	11869.0	(28)	11738.5 (27-)	D	DCO=0.61 17
161.1		6134.7	$17^{(-)}$	5973.7 16 <sup>(-)</sup>		
178.2		4599.3	$13^{(-)}$	4421.1 12 <sup>(-)</sup>		
184.0		2809.3	8-	2625.2 7-		
193.0	2.05	14049.6	(32)	13856.6 (31)	D	DCO=0.57 5
216.7		5025.8		4809.1		
223.1	0.57	15036.1	(33)	14813.0 (32)	D	DCO=0.76 29
228.3		5518.3	14	5289.8 13 <sup>(+)</sup>		
240 <sup>‡</sup>		5048.8	$(12^{+})$	4809.1		
240.6		5289.8	$13^{(+)}$	5048.8 (12 <sup>+</sup> )		
244.8	0.99	11869.0	(28)	11623.9 (27)	D	DCO=0.62 14
251.3		5434.0	$15^{(-)}$	5181.9 14 <sup>(-)</sup>		
261.7		5551.2	$14^{(+)}$	5289.8 13 <sup>(+)</sup>		
264.3		5289.8	$13^{(+)}$	5025.8		
275.9		5826.9	$15^{(+)}$	5551.2 14 <sup>(+)</sup>		

# $\gamma(^{124}$ Xe) (continued)

Eγ	Iγ	E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$\mathbf{E}_f = \mathbf{J}_f^{\pi}$	Mult. <sup>†</sup>	Comments
281		12772.6		12491.6 (29)		
290.8		7031.4	$19^{(-)}$	6740.6 18 <sup>(-)</sup>		
302.3		3111.5	9-	2809.3 8-		
308.8		5826.9	$15^{(+)}$	5518.3 14		
313.0		7939.5	$21^{(-)}$	7626.1 20 <sup>(-)</sup>		
315.0		11869.0	(28)	11553.9 27 <sup>(-)</sup>	D	DCO=0.42 10
321.1	2.95	13638.1	(31)	13317.0 (30)	D	DCO=0.41 8
322.6	1.59	12491.6	(29)	12169.0 (28)	D	DCO=0.66 12
324.8		3786.6	$11^{(-)}$	3461.9 10 <sup>(-)</sup>		
326.6		6153.2	$16^{(+)}$	5826.9 15(+)		
331.2		3502.5	$(10^{+})$	3171.4 10+		
344.6		2676.0	$7^{(-)}$	2331.4 8+		
350.3		3461.9	$10^{(-)}$	3111.5 9-		
354.0		354.2	2+	$0.0 \ 0^+$		
358.3		4573.6	$13^{(-)}$	4215.5 12 <sup>(-)</sup>		
368.5		1247.7	3+	879.2 4+		
380.4		3882.9	$12^{(+)}$	3502.5 (10 <sup>+</sup> )		
381.8		10809.8	$(26^+)$	10428.0 (25)	D	DCO=0.50 17
398.5		2625.2	7-	2226.9 $5^{(-)}$		
399		12992.8	(30)	12593.9 (29)		
399.9		6553.0	$17^{(+)}$	6153.2 16 <sup>(+)</sup>		
400.1		1836.9	5+	1437.4 4+		
400.2		15177.9	(34)	14777.7 (33)		
401.4		1247.7	3*	846.3 2+		
415.8		4298.5	$(12^+)$	$3882.9 12^{(+)}$		
419.7		3095.8	8(-)	$2676.0 7^{(-)}$		
429.3		4215.5	$12^{(-)}$	3786.6 11(-)		
430.6		2574.5	·/+ 10(+)	$2143.1 6^+$		
430.9		6984.3	$18^{(+)}$	$6553.0 \ 17^{(+)}$		
436.0		8364.8	$21^{(+)}$	7928.4 20(+)		
443.7		9926.8	$24^{(+)}$	9483.1 23(+)		
448.6		7432.7	$19^{(+)}$	6984.3 18(+)		
449		2676.0	$7^{(-)}$	$2226.9 5^{(-)}$		
452.8		5289.8	13(+)	4837.2		
472.0		3148.0	9(-)	2676.0 7(-)		
478.0		2809.3	8-	2331.4 8+		
486.1		3111.5	9	2625.2 /		
490.2		12559.5 846.3	(29)	11809.0 (28) $354.2 2^+$		
492.0		5067.3	$\frac{2}{14(-)}$	1573 6 13 <sup>(-)</sup>		
494.0		2007.5	$(22^+)$	$4373.0 13^{\circ}$		
495.2		7028 /	(22)	7422.7 10(+)		
490.5		1920.4	$20^{(-)}$	1452.7 19		
499.0		5112.6	$(14^{+})$	11034.1 (20)		
501.5		10428.0	(14)	$4012.3  14^{(+)}$		
502.6		1042ð.U	(23) $14^{(+)}$	5040 0 (10 <sup>+</sup> )		
517.0		2005 0	(-)	$3040.0 (12^{\circ})$ $2570 \circ c(-)$		
52/ 0	100.0	2092.8 870 7	0`´´ /+	25/0.0 0		
524.9 537 1	100.0	5826.0	+ 15 <sup>(+)</sup>	534.2 2 5280 8 12(+)		
530.5		5072 7	$16^{(-)}$	$5207.0  15^{(-)}$		
539.5 543.0		11473 0	(27)	10929 2 (26+)		
546 0		8911 3	(27) 22(+)	8364.8 21(+)		
553.7		10896.1	${26^{(-)}}$	$10342.4 \ 25^{(-)}$		

# $\gamma(^{124}$ Xe) (continued)

Eγ	Iγ	E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$E_f \qquad J_f^{\pi}$	Mult. <sup>†</sup>	Comments
555.0		8483.4		7928.4 20 <sup>(+)</sup>		
558.3		1437.4	4+	879.2 4+		
558.8		8083.0	$(20^{+})$	7524.2 20 <sup>(+)</sup>		
564.0		9047.4		8483.4		
569.2		9675.1	24(-)	9105.9 23 <sup>(-)</sup>		
569.4		3717.4	$10^{(-)}$	3148.0 9 <sup>(-)</sup>		
572.0		9483.1	23(+)	8911.3 22 <sup>(+)</sup>		
582.4		5181.9	$14^{(-)}$	4599.3 13 <sup>(-)</sup>		
582.6		8522.2	$22^{(-)}$	7939.5 21 <sup>(-)</sup>		
583.2		13304.6	(30)	12721.3 (29)	D	DCO=0.71 9
583.7		9105.9	$23^{(-)}$	8522.2 22 <sup>(-)</sup>		
589.2		1836.9	5+	1247.7 3+		
591.2		1437.4	4+ <+	846.3 2+		
594.2		2143.1	6' • • • ()	1548.7 6		
594.6		7626.1	$20^{(-)}$	7031.4 19 <sup>(-)</sup>		
598.1		4421.1	$12^{(-)}$	$3823.0 11^{(-)}$		
602.3		6153.2	$16^{(+)}$	5551.2 14(+)		
605.8		6740.6	18(-)	6134.7 17(-)		
615		3786.6	11(-)	3171.4 10+		
621.6		3717.4	$10^{(-)}$	3095.8 8(-)		
633.2	4.17	12992.8	(30)	12359.5 (29)	D	DCO=0.77 11
638.2		8070.7	$(20^{+})$	7432.7 19(+)		
643.2		12197.1	(28 <sup>-</sup> )	11553.9 27(-)		
643.5	0.00	5518.3	14	48/4.8		
043.3	0.90	13038.1	(31)	12992.8 (30) 7422.7 10(+)		
030.0		8083.0	$(20^{-1})$	7432.7 19 <sup>(1)</sup>		
001.0		3823.0 2461.0	$11^{(-)}$	$31/1.4 \ 10^{-1}$		
052.5		3401.9	$10^{(-)}$	2809.3 8		
657.8		11553.9	(11+)	$10896.1 \ 26^{(+)}$		
663.2	12.0	4002.0	$(11^{+})$ (27)	10800.8 (26 <sup>+</sup> )	D	DCO = 0.53 4
667.3	12.9	10342 4	(27) 25(-)	$0675 1 24^{(-)}$	D	DCO-0.55 4
667 A		8100 0	23	$7/327 10^{(+)}$		
669 5		1548 7	6+	879.2 4+		
675.0		3823.0	11(-)	$3148.0 9^{(-)}$		
675.2		3786.6	11(-)	3111.5 9-		
679.1		7118.0	$(18^{+})$	6438 9 18 <sup>(+)</sup>		
681.9		3955.5	$(10^{-})$	$3273.6 q^{(-)}$		
691.0		6153.2	$16^{(+)}$	$5462 1 (15^{-})$		
696.0		12169.0	(28)	11473.0 (27)		
700.6		6134.7	$17^{(-)}$	5434.0 15 <sup>(-)</sup>		
703.7		4421.1	$12^{(-)}$	$3717.4 \ 10^{(-)}$		
705.4		2143.1	$6^{+}$	$1437.4 4^+$		
711.6		3882.9	$12^{(+)}$	3171.4 10+		
723	7.71	13317.0	(30)	12593.9 (29)	D	DCO=0.41 10
725	7.71	12593.9	(29)	11869.0 (28)	D	Iγ and DCO combined for 723+725. DCO=0.41 <i>10</i>
726.4		6553.0	17 <sup>(+)</sup>	5826.9 15 <sup>(+)</sup>		I $\gamma$ and DCO combined for 723+725.
727.4		5025.8		4298.5 (12+)		
727.8		11623.9	(27)	$10896.1 \ 26^{(-)}$	D	DCO=0.75 32
729.6		4612.5	$14^{(+)}$	3882.9 12(+)		
/36		12359.5	(29 <sup>-</sup> )	11623.9 (27)		

# $\gamma(^{124}$ Xe) (continued)

738       62553       (16 <sup>+</sup> )       5818.3       14       Q       DCO=1.16       14         739       4741.6       (13 <sup>+</sup> )       4002.6       (11 <sup>+</sup> )       4002.6       (11 <sup>+</sup> )         741.9       2578.8       (6 <sup>+</sup> )       1830.9       9       +         730.3       S048.8       (12 <sup>+</sup> )       4208.5       (12 <sup>+</sup> )       -         731.2       4215.5       [2 <sup>+</sup> )       340.9       (0 <sup>+</sup> )       -         735.3       S058.9       (10 <sup>+</sup> )       2911.2       Q       DCO=1.01       D         760.6       5181.9       14 <sup>+0</sup> 4421.1       12 <sup>+</sup> -       -         770.9       1.29       10428.0       (25)       957.0       (24 <sup>+</sup> )       D       DCO=0.70       21         776.3       4593.3       13 <sup>+0</sup> 382.0       11 <sup>+0</sup> -       -       DCO=1.07       8         780.1       3111.5       9 <sup>+</sup> 231.4       8 <sup>+</sup> -       -       -       DCO=1.07       8         781.1       3115.5       9 <sup>+</sup> 334.6       11 <sup>+0</sup> -       -       -       -       -       DCO=1.07       8       -       -       -       <	Eγ	Iγ	E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$\mathbf{E}_f = \mathbf{J}_f^{\pi}$	Mult. <sup>†</sup>	Comments
738       237.4       74       1836.9       5         741.9       237.8       6 <sup>-7</sup> 1836.9       5         741.9       237.8       6 <sup>-7</sup> 1836.9       5         753.2       441.5       12 <sup>-7</sup> 366.19       10 <sup>-7</sup> 757.9       366.8       10 <sup>-7</sup> 2911.2       8 <sup>+</sup> 757.9       366.8       10 <sup>-7</sup> 2911.2       8 <sup>+</sup> 758.4       2911.2       8 <sup>+</sup> 297.3       16 <sup>-7</sup> 766.6       5181.9       14 <sup>-7</sup> 4421.1       12 <sup>-7</sup> 7         766.6       6340.6       18 <sup>-5</sup> 397.7       16 <sup>-7</sup> 7         770.9       1.2       0428.0       (22 <sup>+</sup> )       803.0       DCO=0.70 21         776.3       4599.3       3 <sup>2-5</sup> 382.30       11 <sup>-7</sup> 7         781.1       3111.5       9       2334.7       6 <sup>+</sup> 7       DCO=1.07 8         782.7       2331.4       8 <sup>+</sup> 1548.7       6 <sup>+</sup> 7       7       9       123.0       1137.4       8 <sup>+</sup> 782.7       2331.4       8 <sup>+</sup> 368.5       10 <sup>-7</sup> 378.6       11 <sup>-7</sup> 17.1       <	736.8		6255.3	$(16^{+})$	5518.3 14	0	DCO=1.16 14
739471.6(13*)4002.6(11*)741.92578.86'1836.95'750.35048.8(12*)4298.5(12*)751.2421.512128'757.93668.9(10*)22*810.0QDCO=1.01 10760.6518.1.914*4421.112*7763.42911.28*2*243.16*764.615*573.716*7770.91.2910428.0(25)965.0(24*)D776.34599.313*383.010*7776.44599.7(22*)8083.0(20*)QDCO=1.07.87791.233.01155.392*7*7780.1311.59*233.4.88*784.13055.5(11*)317.410*786.84573.613*366.611*787.118.19657.0(22*)807.720*797123.2625.316*518.1.914*787.118.19657.0(22*)0DCO=1.13.10177.118.19657.0(24*)8859.712*79.118.19657.0(24*)8859.712*79.118.19657.0(24*)8859.712*79.118.19657.0(24*)8859.712*805.61259.5(11*)544.013*814.613*14*9 <td>738</td> <td></td> <td>2574.5</td> <td>7+</td> <td>1836.9 5+</td> <td>C C</td> <td></td>	738		2574.5	7+	1836.9 5+	C C	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	739		4741.6	$(13^{+})$	4002.6 (11+)		
745.014040.6(32)13304.6(30)753.35048.8(12)4208.5(12)753.2421.5 $12^{(-)}$ 3461.9 $10^{(-)}$ 757.93663.9(10)221.28'759.88859.7(22)8100.0QDCO=1.01 10760.65181.9 $14^{(-)}$ 5973.7 $16^{(-)}$ 7763.42911.28'243.16'7770.91.291042.0(25)9657.0(24)D776.64859.7(22)803.0(20)QDCO=1.07.8776.13111.59''233.48''7780.13111.59''233.48''782.7233.48'1545.76''784.13055.5(11)'317.410''785.68559.7(22)'807.7(20)'QDCO=1.13.10780.43668559.7(22)'807.7(20)'QDCO=1.13.10791233.016''546.116''Y and DCO combined for 789.0+789.6.792.2597.316''546.116''Y and DCO combined for 789.0+789.6.793.118.19655.0(12)'855.7(12)''803.44758.8(13)3955.5(11)''814.9511.6.014''4298.512'''815.5625.3(16'')513.6(14)'''814.613'''384.615'''45''''815.1 </td <td>741.9</td> <td></td> <td>2578.8</td> <td>6(-)</td> <td>1836.9 5+</td> <td></td> <td></td>	741.9		2578.8	6(-)	1836.9 5+		
750.3       504.8. $(12^{+})$ 4298.5 $(12^{+})$ 757.9       3668.9 $(10^{+})$ 2911.2       8'         757.8       8859.7 $(2^{+})$ 810.00       Q       DCO=1.01 $10^{-}$ 766.4       2911.2       8'       243.1 $6^{+}$ 768.4       2911.2       8'       243.1 $6^{+}$ 769.1       3343.7 $(9^{+})$ 2574.5 $7^{+}$ 709.1       2333.3 $(1^{+})$ 252.9 $(2^{+})$ D       DCO=0.70 $21$ 776.6       8859.7 $(2^{+})$ 803.0 $(2^{+})$ D       DCO=1.07 $8$ 789.1       3111.5 $7^{-}$ 333.0 $(1^{-})$ $7^{-}$ $7^{-}$ $7^{-}$ $7^{-}$ $7^{-}$ $7^{-}$ $7^{-}$ $8^{-}$ $2^{-}$ $8^{-}$ $7^{-}$	745.0		14049.6	(32)	13304.6 (30)		
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	750.3		5048.8	$(12^{+})$	4298.5 (12+)		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	753.2		4215.5	$12^{(-)}$	3461.9 10 <sup>(-)</sup>		
759.8889.7 $(22^+)$ 810.0QDCO=1.01 10766.65181.9 $14^{(-)}$ 421.1 $12^{(-)}$ DCO=0.70 21768.42911.2 $8^+$ 2143.1 $6^+$ DCO=0.70 21770.91.291042.80 $(25)$ 9657.0 $(2^+)$ D776.34599.3 $11^{(-)}$ 323.0 $(1-)^+$ D776.68859.7 $(22^+)$ 8083.0 $(20^+)$ QDCO=0.70 21776.68859.7 $(22^+)$ 8083.0 $(20^+)$ QDCO=1.07 8780.13111.592331.4 $8^+$ 1548.7 $6^+$ 784.13955.5 $(17^-)$ 3171.4 $10^+$ T786.6455.3 $(16^+)$ 5465.8 $16^{(-)}$ QDCO=1.13 1079.03.66859.7 $(22^+)$ 8070.7 $(20^+)$ QDCO=1.13 1079.118.19657.0 $(24^+)$ 889.7 $(22^+)$ QDCO=1.13 1079.118.49657.0 $(24^+)$ 889.7 $(22^+)$ QDCO=1.14 10805.612359.5 $(17^-)$ 2331.4 $8^+$ $(14^+)$ QDCO=1.28 25813.36943.3 $16^{(+)}$ 4592.3 $16^{(+)}$ $(14^+)$ 825.57118.0 $(14^+)$ $(13^+)$ $(14^+)$ $(14^+)$ 840.47395.3 $(16^+)$ $(13^+)$ $(14^+)$ 851.55067.3 $16^{(+)}$ $(15^+)$ $(14^+)$ 851.55067.3 $16^{(+)}$ $(15$	757.9		3668.9	$(10^{+})$	2911.2 8+		
760.9       5181.9 $14^{(-)}$ $4421.1$ $12^{(-)}$ 768.4       2911.2 $8^{(-)}$ $2374.5$ $7^{(-)}$ 709.9       1.29       10428.0       (25)       955.70 $24^{+}$ D         770.9       1.233.0       13^{(-)}       3823.0       11^{(-)}       D       DCO=0.70 $21$ 776.6       8859.7       (22)       805.0 $20^{(-)}$ Q       DCO=1.07 $8$ 780.1       3111.5       9       27^{(-)}       Q       DCO=1.07 $8$ 784.1       3955.5       (117)       3171.4       10^{+} $786.6$ $4573.6$ $15^{(-)}$ $786.6$ $16^{(-)}$ $793.0^{-}$ $19^{-}$ and DCO combined for 789.0+789.6.         792.2       5973.7 $16^{(-)}$ 546.5 $16^{(-)}$ $19^{-}$ and DCO combined for 789.0+789.6.         793.2       625.3 $(16^{+})$ 546.2 $14^{(-)}$ $19^{-}$ and DCO combined for 789.0+789.6.         793.2       625.3 $(16^{+})$ 546.2 $14^{(-)}$ $19^{-}$ and DCO combined for 789.0+789.6.         793.2       625.3 $(16^{+})$ 543.1 $14^{(-)}$ $1$	759.8		8859.7	$(22^{+})$	8100.0	Q	DCO=1.01 10
766.9       6740.6 $18^{(-)}$ 597.3.7 $16^{(-)}$ 768.4       2911.2       24       2143.1 $6^+$ 770.9       1.29       10428.0       (25)       9657.0 $(24^+)$ D       DCO=0.70 $21$ 776.3       4589.3 $13^{(-)}$ 382.0 $11^{(-)}$ D       DCO=1.70 $21$ 776.6       8589.7 $(22^+)$ 808.3.0 $20^+$ Q       DCO=1.07 $8$ 776.1       3111.5       9       2331.4 $8^+$ $7$ $78^ 780.0^-$ <td>760.6</td> <td></td> <td>5181.9</td> <td><math>14^{(-)}</math></td> <td><math>4421.1 \ 12^{(-)}</math></td> <td></td> <td></td>	760.6		5181.9	$14^{(-)}$	$4421.1 \ 12^{(-)}$		
768.4       2911.2       8 <sup>+</sup> 2143.1       6 <sup>+</sup> 770.9       1.3343.7       9'       2574.5       7'         770.9       1.29       10428.0       (25)       9657.0       (24 <sup>+</sup> )       D       DCO=0.70 21         776.3       4599.3       13 <sup>(-)</sup> 3823.0       (20 <sup>+</sup> )       Q       DCO=1.07 8         779.1       12333.0       1155.9       27 <sup>(-)</sup> Q       DCO=1.07 8         782.7       2331.4       8 <sup>+</sup> 1548.7       6 <sup>+</sup> 784.1       3955.5       (11 <sup>-)</sup> 3786.6       11 <sup>(-)</sup> 789.0       3.66       859.7       (22 <sup>+)</sup> 807.0       (2 <sup>+)</sup> Q       DCO=1.13 10         797.1       18.1       967.0       (24 <sup>+)</sup> 8859.7       (22 <sup>+)</sup> Q       DCO=1.13 10         793.2       6255.3       (16 <sup>+</sup> )       546.8       16 <sup>(+)</sup> Q       DCO=1.13 10         797.1       18.1       967.0       (24 <sup>+)</sup> 8859.7       (22 <sup>+)</sup> Q       DCO=1.13 10         793.2       6255.3       (16 <sup>+</sup> )       543.1.8       14 <sup>(-)</sup> 709.1       18.1.6       967.0       (24 <sup>+)</sup> 816.6       1348.0 <td>766.9</td> <td></td> <td>6740.6</td> <td><math>18^{(-)}</math></td> <td>5973.7 16<sup>(-)</sup></td> <td></td> <td></td>	766.9		6740.6	$18^{(-)}$	5973.7 16 <sup>(-)</sup>		
760.1       3343.7       (9 <sup>4</sup> )       257.4.5       7 <sup>4</sup> 770.9       1.29       10428.0       (25)       9657.0       (24)       D       DCO=0.70       21         776.3       4599.3       13 <sup>(-)</sup> 3823.0       11 <sup>(-)</sup> D       DCO=0.70       21         776.6       8859.7       (22)       8083.0       (20 <sup>+</sup> )       Q       DCO=1.07       8         780.1       3111.5       9       2331.4       8 <sup>+</sup> *       7       7         781.1       3955.5       (11 <sup>-</sup> )       3171.4       10 <sup>+</sup> 7       10       17       17       10       17       17       10       17       10       17       10       19       10       19       10       10       19       30       10       19       30       16       15<	768.4		2911.2	8+	2143.1 6+		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	769.1		3343.7	(9 <sup>+</sup> )	2574.5 7+		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	770.9	1.29	10428.0	(25)	9657.0 (24+)	D	DCO=0.70 21
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	776.3		4599.3	$13^{(-)}$	3823.0 11 <sup>(-)</sup>		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	776.6		8859.7	$(22^{+})$	8083.0 (20+)	Q	DCO=1.07 8
780.1       3111.5       9 <sup>-</sup> 231.4       8 <sup>+</sup> 782.7       2331.4       8 <sup>+</sup> 154.7       6 <sup>+</sup> 784.1       3955.5       (11 <sup>-</sup> )       3171.4       10 <sup>+</sup> 786.8       4573.6       13 <sup>-(-)</sup> 378.6.6       11 <sup>-(-)</sup> 789.0       3.66       8859.7       (22 <sup>+</sup> )       8070.7       (20 <sup>+</sup> )       Q       DCO=1.13 10         1y and DCO combined for 789.0+789.6.       1y and DCO combined for 789.0+789.6.         792.2       5973.7       16 <sup>(-)</sup> 518.19       14 <sup>(-)</sup> 793.1       18.1       9657.0       (24 <sup>+</sup> )       8859.7       (22 <sup>+</sup> )       Q       DCO=1.13 10         1y and DCO combined for 789.0+789.6.       170.7       11.53.9       27 <sup>(-)</sup> Q       DCO=1.14 10         803.4       4758.8       (13 <sup>-</sup> )       3955.5       (11 <sup>+</sup> )       4298.5       112 <sup>+</sup> 816.6       3148.0       9 <sup>(-)</sup> 2331.4       8 <sup>+</sup> 845.3       645.3       16 <sup>+</sup> 4215.5         823.5       5057.3       (16 <sup>+</sup> )       5431.8       (14 <sup>+</sup> )       Q       DCO=1.28 25         813.1       6984.3       18 <sup>(+)</sup> 6153.2       16 <sup>+</sup> )       534.9	779		12333.0		11553.9 27 <sup>(-)</sup>		
782.7       231.4       8*       1548.7       6*         784.1       3955.5       (117)       3171.4       10*         786.8       4573.6       13''       3786.6       11''         789.0       3.66       8859.7       (22*)       8070.7       (20*)       Q       DCO=1.13       10         789.6       3.66       6255.3       (16*)       5465.8       16'+       Q       DCO=1.13       10         792.2       5973.7       16'-       5463.8       16'+       Q       DCO=1.13       10         792.2       5973.7       16'-       5462.1       (15*)       Q       DCO=1.13       10         797.1       18.1       967.0       (24*)       8859.7       (22*)       Q       DCO=1.14       10         803.4       4758.8       (13*)       3955.5       (17*)       816.6       3148.0       9'''       2331.4       8*         823.6       6255.3       (16*)       5431.8       (14*)       Q       DCO=1.28       25         831.3       6984.3       18(*)       6153.2       16(+)       429.3       13(+)       429.4       531.4       440.1       55.4       634.9	780.1		3111.5	9-	2331.4 8+		
784.1       3955.5       (11)       3171.4       10 <sup>+</sup> 786.8       4573.6       13 <sup>(-)</sup> 3786.6       11 <sup>(-)</sup> 789.0       3.66       859.7       (22 <sup>+</sup> )       Q       DCO=1.13 <i>I0</i> 789.0       3.66       6255.3       (16 <sup>+</sup> )       5181.9       14 <sup>(-)</sup> 792.2       5973.7       16 <sup>(-)</sup> 5181.9       14 <sup>(-)</sup> 797.1       18.1       9657.0       (24 <sup>+</sup> )       8859.7       (22 <sup>+</sup> )       Q       DCO=1.13 <i>I0</i> 797.1       18.1       9657.0       (24 <sup>+</sup> )       8859.7       (22 <sup>+</sup> )       Q       DCO=1.14 <i>I0</i> 803.4       4758.8       (13 <sup>-</sup> )       3955.5       (11 <sup>-</sup> )       153.9       27 <sup>(-)</sup> Q       DCO=1.14 <i>I0</i> 814.9       5113.6       (14 <sup>+</sup> )       4298.5       (12 <sup>+</sup> )       Q       DCO=1.28 <i>25</i> 823.5       6255.3       (16 <sup>+</sup> )       513.6       (14 <sup>+</sup> )       Q       DCO=1.28 <i>25</i> 833.1       543.40       15 <sup>(-)</sup> 534.14       8 <sup>+</sup> 457.5       457.5         840.1       3171.4       10 <sup>+</sup> 231.4       8 <sup>+</sup> 457.5       457.5       457.5         853.5	782.7		2331.4	8+	1548.7 6+		
786.84573.613 <sup>(-)</sup> (22 <sup>+)</sup> 3786.6 (11 <sup>(-)</sup> )700 (20 <sup>+)</sup> (22 <sup>+)</sup> DCO=1.13 10 Iy and DCO combined for 789.0+789.6.789.63.666255.3(16 <sup>+)</sup> )5465.816 <sup>(-)</sup> DCO=1.13 10 Iy and DCO combined for 789.0+789.6.792.25973.716 <sup>(-)</sup> 5181.914 <sup>(-)</sup> (24 <sup>+)</sup> Iy and DCO combined for 789.0+789.6.792.25973.716 <sup>(-)</sup> 5181.914 <sup>(-)</sup> (24 <sup>+)</sup> Iy and DCO combined for 789.0+789.6.792.25973.716 <sup>(-)</sup> 5181.914 <sup>(-)</sup> (24 <sup>+)</sup> Iy and DCO combined for 789.0+789.6.797.118.19657.0(24 <sup>+</sup> )8859.7(22 <sup>+</sup> ) (22 <sup>+</sup> )DCO=1.14 10803.44758.8(13 <sup>-</sup> )3955.5(11 <sup>-</sup> )805.612359.5(29 <sup>-</sup> )1153.927 <sup>(-)</sup> 814.95113.6(14 <sup>+</sup> )4298.5(12 <sup>+</sup> )816.63148.09 <sup>(-)</sup> 2331.48 <sup>+</sup> 823.56255.3(16 <sup>+</sup> )5431.8(14 <sup>+</sup> )QDCO=1.28 25823.65937.2(16 <sup>+</sup> )513.5(16 <sup>+</sup> )459.3840.13171.410 <sup>+</sup> 2331.48 <sup>+</sup> 44853.1543.4015 <sup>(-)</sup> 459.93( <sup>-)</sup> 844.518 <sup>+</sup> 6255.3(16 <sup>+</sup> )414.514 <sup>+</sup> 853.25465.816 <sup>+</sup> 412.512 <sup>+</sup> 861.4808.0(20 <sup>+</sup> )718.9(18 <sup>+</sup> )875.94758.8(13 <sup>-</sup> )3882.912 <sup>++</sup> 875.94758.8(13 <sup>-</sup> )3882.9 <td>784.1</td> <td></td> <td>3955.5</td> <td><math>(11^{-})</math></td> <td>3171.4 10+</td> <td></td> <td></td>	784.1		3955.5	$(11^{-})$	3171.4 10+		
789.0 $3.66$ $8859.7$ $(22^+)$ $807.7$ $(20^+)$ $Q$ $DCO=1.13$ $10$ $789.6$ $3.66$ $6255.3$ $(16^+)$ $5465.8$ $16^{(+)}$ $Q$ $DCO=1.13$ $10$ $792.2$ $5973.7$ $16^{(-)}$ $5181.9$ $14^{(-)}$ $DCO=1.13$ $10$ $792.2$ $6255.3$ $(16^+)$ $5462.1$ $(15^-)$ $DCO=1.13$ $10$ $797.1$ $18.1$ $9657.0$ $(24^+)$ $8859.7$ $(22^+)$ $Q$ $DCO=1.14$ $803.4$ $4758.8$ $(13^-)$ $3955.5$ $(17^-)$ $DCO=1.28$ $DCO=1.28$ $814.9$ $5113.6$ $(14^+)$ $4298.5$ $(12^+)$ $Q$ $DCO=1.28$ $823.5$ $6255.3$ $(16^+)$ $5431.8$ $(14^+)$ $Q$ $DCO=1.28$ $823.5$ $6255.3$ $(16^+)$ $5431.8$ $(14^+)$ $Q$ $DCO=1.28$ $840.1$ $3171.4$ $10^+$ $2331.4$ $8^+$ $845.5$ $846.3$ $2^+$ $0.0$ $0^+$ $849.1$ $5590.7$ $(15^+)$ $4741.6$ $(13^+)$ $853.2$ $5465.8$ $16^+$ $4612.5$ $14^+$ $864.4$ $883.0$ $(20^+)$ $721.89$ $(18^+)$ $875.9$ $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ $875.9$ $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24^{(+)}$ $884.4$ $7626.1$ $20^{(-)}$ $764.6$ $18^{(-)}$ $883$	786.8		4573.6	$13^{(-)}$	3786.6 11 <sup>(-)</sup>		
Ty and DCO combined for 789.0+789.6.789.63.666255.3 $(16^+)$ 5465.8 $16^{(+)}$ QDCO=1.13 10792.25973.7 $16^{(-)}$ 5181.9 $14^{(-)}$ Ty and DCO combined for 789.0+789.6.793.26255.3 $(16^+)$ 5462.1 $(15^-)$ Ty and DCO combined for 789.0+789.6.793.44758.8 $(13^-)$ 3955.5 $(11^-)$ Ty and DCO combined for 789.0+789.6.803.44758.8 $(13^-)$ 3955.5 $(11^-)$ DCO=1.14 10805.612359.5 $(29^-)$ 11553.9 $27^{(-)}$ 816.63148.0 $9^{(-)}$ 2331.4 $8^+$ 823.56255.3 $(16^+)$ 5431.8 $(14^+)$ QDCO=1.28 25831.36984.3 $18^{(+)}$ 6153.2 $16^{(+)}$ 2331.4 $8^+$ 840.13171.4 $10^+$ 2331.4 $8^+$ Hermitian840.13171.4 $10^+$ 2331.4 $8^+$ 845.5846.3 $2^+$ $0.0$ $0^+$ 849.15590.7 $(15^+)$ $4741.6$ $(13^+)$ 853.25465.8 $16^+$ $4612.5$ $14^{(+)}$ 860.47395.3 $(19^-)$ $6334.9$ $(7^-)$ 862.57118.0 $(13^-)$ $3882.9$ $12^{(+)}$ 875.9 $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ 88310809.8 $(26^+)$ 926.8 $24^{(+)}$ 884.3 $10809.8$ $(26^+)$ $923.^-$ 88310809.8 $(26^+)$ </td <td>789.0</td> <td>3.66</td> <td>8859.7</td> <td><math>(22^{+})</math></td> <td><math>8070.7 (20^+)</math></td> <td>Q</td> <td>DCO=1.13 10</td>	789.0	3.66	8859.7	$(22^{+})$	$8070.7 (20^+)$	Q	DCO=1.13 10
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If and DCO combined for 789.0+789.6.792.2 $5973.7$ $16^{(-)}$ $5181.9$ $14^{(-)}$ 793.2 $6255.3$ $(16^+)$ $5462.1$ $(15^-)$ $DCO=1.14$ 797.1 $18.1$ $9657.0$ $(24^+)$ $8859.7$ $(22^+)$ $Q$ $DCO=1.14$ $803.4$ $4758.8$ $(13^-)$ $3955.5$ $(11^-)$ $DCO=1.14$ $10$ $805.6$ $21359.5$ $(29^-)$ $1155.3$ $27^{(-)}$ $DCO=1.28$ $25$ $814.9$ $5113.6$ $(14^+)$ $4298.5$ $(12^+)$ $DCO=1.28$ $25$ $823.5$ $6255.3$ $(16^+)$ $5431.8$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $5113.6$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $5131.3$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $4599.3$ $13^{(-)}$ $840.1$ $3171.4$ $10^+$ $2331.4$ $8^+$ $840.1$ $3171.4$ $10^+$ $2331.4$ $8^+$ $846.5$ $846.3$ $2^+$ $0.0$ $0^+$ $849.1$ $5590.7$ $(15^+)$ $4741.6$ $(13^+)$ $853.2$ $16^+$ $4612.5$ $14^+$ $853.2$ $5465.8$ $16^+$ $4612.5$ $14^+$ $Q$ $DCO=1.09$ $9$ $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ $921.4^+$ $853.4^+$ $1080.8$ $(26^+)$ $926.8$ $24^+$ $883$ $1$	789.6	3.66	6255.3	$(16^{+})$	5465.8 16 <sup>(+)</sup>	Q	DCO=1.13 10
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793.2 $625.3$ $(16^+)$ $5462.1$ $(15^-)$ $797.1$ $18.1$ $9657.0$ $(24^+)$ $8859.7$ $(22^+)$ $Q$ $DCO=1.14$ $10$ 803.4 $4758.8$ $(13^-)$ $3955.5$ $(11^-)$ $1553.9$ $27(^-)$ $814.9$ $5113.6$ $(14^+)$ $4298.5$ $(12^+)$ $816.6$ $3148.0$ $9(^-)$ $2331.4$ $8^+$ $823.5$ $6255.3$ $(16^+)$ $5431.8$ $(14^+)$ $823.6$ $5937.2$ $(16^+)$ $5113.6$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $5113.6$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $5113.6$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $823.6$ $5937.2$ $(16^+)$ $543.1.8$ $(14^+)$ $Q$ $DCO=1.28$ $25$ $840.1$ $3171.4$ $10^+$ $2331.4$ $8^+$ $846.5$ $846.3$ $2^+$ $0.0$ $0^+$ $849.1$ $5590.7$ $(15^+)$ $4741.6$ $(13^+)$ $853.2$ $5465.8$ $16(^+)$ $4215.5$ $12(^-)$ $853.2$ $5465.8$ $16(^+)$ $4215.5$ $12(^+)$ $Q$ $DCO=1.09$ $9$ $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24(^+)$ $876.1$ $6534.9$ $(17^-)$ $5658.8$ $(15^-)$ $888.3$ $994.0$ $9105.9$ $23(^-)$ $888.3$ $5462.1$ $(15^-)$ $4573.6$	792.2		5973.7	$16^{(-)}$	5181.9 $14^{(-)}$		
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803.4 4/58.8 (13 <sup>-</sup> ) 3955.5 (11 <sup>-</sup> ) 805.6 12359.5 (29 <sup>-</sup> ) 11553.9 27 <sup>(-)</sup> 814.9 5113.6 (14 <sup>+</sup> ) 4298.5 (12 <sup>+</sup> ) 816.6 3148.0 9 <sup>(-)</sup> 2331.4 8 <sup>+</sup> 823.5 6255.3 (16 <sup>+</sup> ) 5431.8 (14 <sup>+</sup> ) Q DCO=1.28 25 823.6 5937.2 (16 <sup>+</sup> ) 5113.6 (14 <sup>+</sup> ) 831.3 6984.3 18 <sup>(+)</sup> 6153.2 16 <sup>(+)</sup> 835.1 5434.0 15 <sup>(-)</sup> 4599.3 13 <sup>(-)</sup> 840.1 3171.4 10 <sup>+</sup> 2331.4 8 <sup>+</sup> 846.5 846.3 2 <sup>+</sup> 0.0 0 <sup>+</sup> 849.1 5590.7 (15 <sup>+</sup> ) 4741.6 (13 <sup>+</sup> ) 851.5 5067.3 14 <sup>(-)</sup> 4215.5 12 <sup>(-)</sup> 853.2 5465.8 16 <sup>(+)</sup> 4612.5 14 <sup>(+)</sup> 860.4 7395.3 (19 <sup>-</sup> ) 6534.9 (17 <sup>-</sup> ) 862.5 7118.0 (18 <sup>+</sup> ) 6255.3 (16 <sup>+</sup> ) Q DCO=1.09 9 864 8003.0 (20 <sup>+</sup> ) 7218.9 (18 <sup>+</sup> ) 875.9 4758.8 (13 <sup>-</sup> ) 3882.9 12 <sup>(+)</sup> 876.1 6534.9 (17 <sup>-</sup> ) 5658.8 (15 <sup>-</sup> ) 880.3 7432.7 19 <sup>(+)</sup> 6553.0 17 <sup>(+)</sup> 883 10809.8 (26 <sup>+</sup> ) 9926.8 24 <sup>(+)</sup> 885.4 7626.1 20 <sup>(-)</sup> 674.06 18 <sup>(-)</sup> 888 9994.0 9105.9 23 <sup>(-)</sup> 888.3 5462.1 (15 <sup>-</sup> ) 4573.6 13 <sup>(-)</sup> 889.9 (6828.2 (18 <sup>+</sup> ) 5937.2 (16 <sup>+</sup> ) 890.9 6828.2 (18 <sup>+</sup> ) 5937.2 (16 <sup>+</sup> ) 892.4 118215 (28 <sup>+</sup> ) 10920 (26 <sup>+</sup> ) O DCO=1.22.26	797.1	18.1	9657.0	$(24^{+})$	8859.7 (22+)	Q	DCO=1.14 10
	803.4		4758.8	$(13^{-})$	3955.5 (11 <sup>-</sup> )		
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	805.6		12359.5	$(29^{-})$	$11553.9 \ 27^{(-)}$		
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823.5 $6255.3$ $(16^+)$ $5431.8$ $(14^+)$ $Q$ $DCO=1.2825$ 823.6 $5937.2$ $(16^+)$ $5113.6$ $(14^+)$ 831.3 $6984.3$ $18^{(+)}$ $6153.2$ $16^{(+)}$ 835.1 $5434.0$ $15^{(-)}$ $4599.3$ $13^{(-)}$ 840.1 $3171.4$ $10^+$ $2331.4$ $8^+$ 846.5 $846.3$ $2^+$ $0.0$ $0^+$ 849.1 $5590.7$ $(15^+)$ $4741.6$ $(13^+)$ 851.5 $5067.3$ $14^{(-)}$ $4215.5$ $12^{(-)}$ 853.2 $5465.8$ $16^{(+)}$ $4612.5$ $14^{(+)}$ 860.4 $7395.3$ $(19^-)$ $6534.9$ $(17^-)$ 862.5 $7118.0$ $(18^+)$ $6255.3$ $(16^+)$ $Q$ $875.9$ $4758.8$ $(13^-)$ $382.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^-)$ $5658.8$ $(15^-)$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $8^{(-)}$ $888.3$ $5462.1$ $(15^-)$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $892.4$ $11821.5$ $(28^+)$ $9929.2$ $(26^+)$ $0$	816.6		3148.0	9(-)	2331.4 8+	0	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	823.6		5937.2	$(10^{\circ})$	$5113.6 (14^{+})$		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	831.3		6984.3	$18^{(+)}$	$6153.2  16^{(+)}$		
840.1 $3171.4$ $10^{-1}$ $2331.4$ $8^{-1}$ 846.5 $846.3$ $2^{+}$ $0.0$ $0^{+}$ 849.1 $5590.7$ $(15^{+})$ $4741.6$ $(13^{+})$ $851.5$ $5067.3$ $14^{(-)}$ $4215.5$ $12^{(-)}$ $853.2$ $5465.8$ $16^{(+)}$ $4612.5$ $14^{(+)}$ $860.4$ $7395.3$ $(19^{-})$ $6534.9$ $(17^{-})$ $862.5$ $7118.0$ $(18^{+})$ $6255.3$ $(16^{+})$ Q       DCO=1.09 9 $864$ $8083.0$ $(20^{+})$ $7218.9$ $(18^{+})$ PCO=1.09 9 $864$ $8083.0$ $(20^{+})$ $7218.9$ $(18^{+})$ PCO=1.09 9 $864$ $8083.0$ $(20^{+})$ $7218.9$ $(18^{+})$ PCO=1.09 9 $876.1$ $6534.9$ $(17^{-})$ $5658.8$ $(15^{-})$ $880.3$ $7432.7$ $9926.8$ $24^{(+)}$ $888.3$ $10809.8$ $(26^{+})$ $9926.8$ $24^{(+)}$ $888.3$ $5462.1$ $(15^{-})$ $4573.6$ $13^{(-)}$ $888.3$	835.1		5434.0	15	4599.3 13		
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$851.5$ $5007.5$ $14^{4/7}$ $4215.5$ $12^{4/7}$ $853.2$ $5465.8$ $16^{(+)}$ $4612.5$ $14^{(+)}$ $860.4$ $7395.3$ $(19^-)$ $6534.9$ $(17^-)$ $862.5$ $7118.0$ $(18^+)$ $6255.3$ $(16^+)$ Q       DCO=1.09 9 $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ $875.9$ $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^-)$ $5658.8$ $(15^-)$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888.3$ $5462.1$ $(15^-)$ $4573.6$ $13^{(-)}$ $90.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $890.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $900-122.26$ $900-122.26$	049.1		5067.2	(13) 14(-)	4/41.0 (15) 4215.5 $12(-)$		
$853.2$ $5463.8$ $16^{(*)}$ $4612.5$ $14^{(*)}$ $860.4$ $7395.3$ $(19^-)$ $6534.9$ $(17^-)$ $862.5$ $7118.0$ $(18^+)$ $6255.3$ $(16^+)$ Q       DCO=1.09 9 $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ PCO=1.09 9 $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ PCO=1.09 9 $875.9$ $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^-)$ $5658.8$ $(15^-)$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888.3$ $5462.1$ $(15^-)$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $890.9$ $6828.2$ $(18^+)$ $1902.9$ $(26^+)$ $0$ $DCO=122.26$	851.5		5067.5	$14^{(+)}$	$4215.5 \ 12^{(+)}$		
$860.4$ $7395$ $(19^{\circ})$ $6334.9$ $(17^{\circ})$ $862.5$ $7118.0$ $(18^{+})$ $6255.3$ $(16^{+})$ Q       DCO=1.09 9 $864$ $8083.0$ $(20^{+})$ $7218.9$ $(18^{+})$ Q       DCO=1.09 9 $875.9$ $4758.8$ $(13^{-})$ $3882.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^{-})$ $5658.8$ $(15^{-})$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^{+})$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888.3$ $5462.1$ $(15^{-})$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^{+})$ $5937.2$ $(16^{+})$ $890.4$ $11821.5$ $(28^{+})$ $1092.9$ $(26^{+})$ $0$ $DCO=122.26$	853.2		5465.8	$10^{(1)}$	$4612.5 \ 14^{(1)}$		
$302.3$ $7118.0$ $(18^+)$ $0233.3$ $(10^+)$ $Q$ $DCO=1.09^+9^+$ $864$ $8083.0$ $(20^+)$ $7218.9$ $(18^+)$ $875.9$ $4758.8$ $(13^-)$ $3882.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^-)$ $5658.8$ $(15^-)$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^+)$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888$ $9994.0$ $9105.9$ $23^{(-)}$ $888.3$ $5462.1$ $(15^-)$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $892.4$ $11821.5$ $(28^+)$ $1092.9$ $(26^+)$ $O$ $DCO=122.26$	862.5		7393.3	(19)	(0.00000000000000000000000000000000000	0	DCO = 1.00.0
$804$ $805.0$ $(20^{\circ})$ $7216.9$ $(18^{\circ})$ $875.9$ $4758.8$ $(13^{-})$ $3882.9$ $12^{(+)}$ $876.1$ $6534.9$ $(17^{-})$ $5658.8$ $(15^{-})$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^{+})$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888$ $9994.0$ $9105.9$ $23^{(-)}$ $888.3$ $5462.1$ $(15^{-})$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^{+})$ $5937.2$ $(16^{+})$ $892.4$ $11821.5$ $(28^{+})$ $1092.9$ $(26^{+})$ $O$ $DCO=122.26$	864 864		8083.0	(10) $(20^{+})$	$0233.3 (10^{-})$ 7218.0 (18 <sup>+</sup> )	Q	DCO=1.09 9
$373.7$ $473.3$ $(13^{-})$ $5882.9$ $12^{-7}$ $876.1$ $6534.9$ $(17^{-})$ $5658.8$ $(15^{-})$ $880.3$ $7432.7$ $19^{(+)}$ $6553.0$ $17^{(+)}$ $883$ $10809.8$ $(26^{+})$ $9926.8$ $24^{(+)}$ $885.4$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888$ $9994.0$ $9105.9$ $23^{(-)}$ $888.3$ $5462.1$ $(15^{-})$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^{+})$ $5937.2$ $(16^{+})$ $892.4$ $11821.5$ $(28^{+})$ $1092.9$ $(26^{+})$ $0$ $DCO=122.26$	875.0		4758.8	$(20^{-})$	7210.9 (10) 3882 0 12(+)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	876.1		6534.0	$(13^{-})$	$5658.8 (15^{-})$		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	880.3		74227	10(+)	$6553.0 \ 17^{(+)}$		
$835$ $7626.1$ $20^{(-)}$ $6740.6$ $18^{(-)}$ $888$ $9994.0$ $9105.9$ $23^{(-)}$ $888.3$ $5462.1$ $(15^{-})$ $4573.6$ $13^{(-)}$ $890.9$ $6828.2$ $(18^+)$ $5937.2$ $(16^+)$ $892.4$ $11821.5$ $(28^+)$ $10929.2$ $(26^+)$ $O$ $DCO=122.26$	882		10800 8	$(26^{+})$	0006.8 24(+)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	005		7626 1	(20)	6740 6 19(-)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	003.4		/020.1	200	$0/40.0  18^{(-)}$		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	000 C		9994.0 5462.1	$(1 E^{-})$	$9105.9 \ 23^{(-)}$		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	888.5		5462.1	(15)	$43/3.0  13^{(1)}$		
	890.9 802 4		0828.2	$(18^{\circ})$	$3937.2 (10^{\circ})$ 10020 2 (26 <sup>+</sup> )	0	DCO = 1.22.26
$893.4$ 1247.7 $3^+$ 354.2 $2^+$	893.4		1247 7	(20) 3 <sup>+</sup>	354.2 2+	Q	DCO-1.22 20

# $\gamma$ <sup>(124</sup>Xe) (continued)</sup>

Eγ	$I_{\gamma}$	E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$\mathbf{E}_f = \mathbf{J}_f^{\pi}$	Mult. <sup>†</sup>	Comments
896.3		8522.2	$22^{(-)}$	7626.1 20 <sup>(-)</sup>		
896.6		7031.4	$19^{(-)}$	6134.7 17 <sup>(-)</sup>		
899.8	8.25	12721.3	(29)	11821.5 (28+)	D	DCO=0.63 11
900.0		5658.8	$(15^{-})$	4758.8 (13-)		
908.4		7939.5	$21^{(-)}$	7031.4 19 <sup>(-)</sup>		
914		7218.9	$(18^{+})$	6304.7 (16 <sup>+</sup> )		
921.1	5.43	14777.7	(33)	13856.6 (31)	Q	DCO=1.17 21
931.0		8859.7	$(22^{+})$	7928.4 20 <sup>(+)</sup>	-	
931.9		8364.8	21(+)	7432.7 19 <sup>(+)</sup>		$E_{v}$ : from figure 1 of 2008Al12, 931.0 in authors' table 1.
942.3		3273.6	<b>9</b> (-)	2331.4 8+	D	DCO=0.72.9
943 7		7928.4	$20^{(+)}$	6984 3 18 <sup>(+)</sup>	2	
944.0		6011.3	$(16^{-})$	5067.3 14 <sup>(-)</sup>		
044.7		5518.3	14	$4573.6 \ 13^{(-)}$		
044.7		10428.0	(25)	$4373.0  13^{(+)}$		
944.7		6541.7	(23) $(17^+)$	5500.7 (15 <sup>+</sup> )		
951.0		8070.7	(17) $(20^{+})$	$71180(18^+)$	0	DCO = 1.03.7
952.5		1836.0	(20) 5 <sup>+</sup>	870.2 4+	Q	DCO-1.03 /
960.3		8355.6	$(21^{-})$	$7305.3 (10^{-})$		
964.9		8083.0	$(21^{-})$ $(20^{+})$	7373.3(17) 71180(18 <sup>+</sup> )	0	DCO=1.18.8
073.0		6438.0	$(20^{-})$ 18 <sup>(+)</sup>	5465.8 16 <sup>(+)</sup>	X	000-1.100
073		11860.0	(28)	$10806 1 26^{(-)}$		
975 075 6		6437.7	(20) $(17^{-})$	$5462.1 (15^{-})$		
077.5		5551.2	(17) 14(+)	$4573.6 \ 13^{(-)}$		
977.5		3557.0	14	4373.0 13		
982.5		7810.7	$(20^{+})$	$6878.2 (18^+)$		
08/11		8011.3	(20) $22^{(+)}$	7028420(+)		E : somewhat poor fit level energy difference-082.0
904.1		9083.6	$(22^{-})$	$8093.5(20^{-1})$		$E_{\gamma}$ . somewhat poor int, level-energy unreference=982.9.
1002.6		10020.2	$(22^{-})$	$0075.5(20^{\circ})$		
1002.0		5025.8	(20)	$40181(10^{+})$		
1007.0		7019 5	$(18^{-})$	$6011.3 (16^{-})$		
1011		7552.7	$(10^{+})$	$6541.7 (17^+)$		
1011		8564	$(21^+)$	7552.7 (19 <sup>+</sup> )		
1011.7	8.11	11821.5	$(28^+)$	10809.8 (26 <sup>+</sup> )	0	DCO=0.89 8
1015.9		9926.8	$24^{(+)}$	8911.3 22 <sup>(+)</sup>	×.	
1018.6	8.00	12491.6	(29)	11473.0 (27)	0	DCO=1.07 //
1019.4	0.00	9374.9	$(23^{-})$	8355.6 (21 <sup>-</sup> )	×	
1026.2		2574.5	7+	1548.7 6+		
1030.1		2578.8	$6^{(-)}$	1548.7 6+		
1030.7		5048.8	$(12^{+})$	4018.1 (10 <sup>+</sup> )		
1039.0		7050.4	(18 <sup>-</sup> )	6011.3 (16 <sup>-</sup> )		
1039.4		10123.0	$(24^{-})$	9083.6 (22-)		
1042.9		7480.6	(19 <sup>-</sup> )	6437.7 (17-)		
1043.0		8093.5	$(20^{-})$	7050.4 (18 <sup>-</sup> )		
1044.2	3.12	13638.1	(31)	12593.9 (29)		
1045.0		11473.0	(27)	10428.0 (25)		
1046.1		5048.8	$(12^{+})$	4002.6 (11+)		
1046.2		5658.8	$(15^{-})$	4612.5 14 <sup>(+)</sup>		
1049.0		8859.7	$(22^{+})$	7810.7 (20 <sup>+</sup> )		
1060		11054.1	(26)	9994.0		
1069.2		6534.9	(17 <sup>-</sup> )	5465.8 16 <sup>(+)</sup>		
1074.0		8093.5	(20-)	7019.5 (18-)		
1074.3		5289.8	$13^{(+)}$	4215.5 12 <sup>(-)</sup>		
1076.1		2625.2	7-	1548.7 6+		
1083.2		1437.4	4+	354.2 2+		

# $\gamma(^{124}$ Xe) (continued)

Eγ	$I_{\gamma}$	$E_i$ (level)	$\mathbf{J}_i^{\pi}$	$E_f$ J	$\int_{f}^{\pi}$ N	Ault. <sup>†</sup>	Comments
1083.8		9648		8564 (21	1+)		
1084		13856.6	(31)	12772.6			
1085.2		7524.2	$20^{(+)}$	6438.9 18	(+)		
1088.3		4874.8		3786.6 11	(-)		
1088.3		8899.0	$(22^{+})$	7810.7 (20	0+)		
1089.2		8569.8	(21 <sup>-</sup> )	7480.6 (19	9-)		
1104.0		9668		8564 (21	1+)		
1107		4018.1	$(10^{+})$	2911.2 8+			
1117.8		9483.1	$23^{(+)}$	8364.8 21	(+)		
1119.0		9047.4		7928.4 20	(+)		
1127.2		4298.5	$(12^+)$	3171.4 10	+		
1127.4		2676.0	7(-)	1548.7 6+			
1128.3		15177.9	(34)	14049.6 (32	2) (	2	DCO=1.13 27
1133.3		5431.8	$(14^{+})$	4298.5 (12	2 <sup>+</sup> )		
1142.5	22.0	11265	(26)	10123.0(24)	4) 4+) (		
1152.7	22.0	10809.8	$(20^{\circ})$	9037.0 (24	+) (	Į	DCO=1.10 0
1152.0		0675 1	24(-)	9040 9500 0 00	(-)		
1152.9		9075.1 10537 9	$(25^{-})$	9374 9 (23	3-)		
1166.3		9105.9	$23^{(-)}$	7939 5 21	(-)		
1168.4		4837.2	23	3668.9 (10	(+C		
1168.5		10836		9668	~ )		
1171		3502.5	$(10^{+})$	2331.4 8+			
1174.8		14813.0	(32)	13638.1 (31	1)		
1189.3		10088.3	$(24^{+})$	8899.0 (22	2+)		
1191		9760.8	(23 <sup>-</sup> )	8569.8 (21	1-)		
1198.2		8722.4	$22^{(+)}$	7524.2 20	(+)		
1200.6		11738.5	(27 <sup>-</sup> )	10537.9 (25	5-)		
1211.6		11553.9	$27^{(-)}$	10342.4 25	(-)		
1217.7		13577.2	(31 <sup>-</sup> )	12359.5 (29	9 <sup>-</sup> ) 2+)		
1220.0		3318.3	14	4298.5 (12	2 · ) (-)		
1221.0		10890.1	$(28^+)$	96/5.1 24	<+)		
1224		5112.6	(20)	2892.0 12	(+)		
1230.4		10342 4	(14) 25(-)	0105 0 23	(-)		
1230.4		11230.5	$(26^{+})$	0006.8 24	(+)		
1242.7		11239.3	(20)	10537 9 (25	5-)		
1252.0		12517	$(28^{-})$	11265 (26	5 <sup>-</sup> )		
1261.4		11258.2	(==)	9996.8 24	(+)		
1262.1		5048.8	$(12^{+})$	3786.6 11	(-)		
1263.7		2143.1	6+	879.2 4+			
1272.0	6.04	10929.2	$(26^{+})$	9657.0 (24	4 <sup>+</sup> ) (	2	DCO=1.03 20
1274.4		9996.8	$24^{(+)}$	8722.4 22	(+)	-	
1279		12333.0		11054.1 (26	5)		
1281.5	1.10	11623.9	(27)	10342.4 25	(-)		
1296.6		11384.9	$(26^+)$	10088.3 (24	4+)		
1301		12197.1	(28 <sup>-</sup> )	10896.1 26	(-)		
1334.2	1.64	16512.1		15177.9 (34	4)		
1335.4		8859.7	$(22^{+})$	7524.2 20	(+)		
1347.7		2226.9	$5^{(-)}$	879.2 4+			
1348.4		16384.5	(85)	15036.1 (33	3)		
1359.2	<b>7</b> 00	12169.0	(28)	10809.8 (26	5 <sup>+</sup> )		
1364.9	7.89	13856.6	(31)	12491.6 (29	y) (	Z	DCO=1.00 16
1366.0		10088.4		8722.4 22			

				<sup>82</sup> S	e( <sup>48</sup> Ca,6	δnγ) <mark>2</mark> (	008A112,2007A137 (continued)
						$\gamma(^{124})$	Xe) (continued)
Eγ	$I_{\gamma}$	$E_i$ (level)	$\mathbf{J}_i^{\pi}$	$E_f$	$\mathbf{J}_f^\pi$	Mult. <sup>†</sup>	Comments
1379		11054.1	(26)	9675.1	24 <sup>(-)</sup>		
1396	5.99	11738.5	(27 <sup>-</sup> )	10342.4	25(-)	Q	DCO=1.25 30 I $\gamma$ and DCO combined for 1396+1398.
1398	5.99	15036.1	(33)	13638.1	(31)	Q	DCO=1.25 30 Iy and DCO combined for 1396+1398.
1448		13317.0	(30)	11869.0	(28)		
1483.0		13304.6	(30)	11821.5	$(28^{+})$		
1492.6		16528.7		15036.1	(33)		
1496		14813.0	(32)	13317.0	(30)		
1546.2		5048.8	$(12^{+})$	3502.5	$(10^{+})$		
1548.9		5431.8	$(14^{+})$	3882.9	$12^{(+)}$		
1692		6304.7	$(16^{+})$	4612.5	$14^{(+)}$		

1703.7‡

<sup>†</sup> From DCO ratios.
 <sup>‡</sup> Placement of transition in the level scheme is uncertain.

3171.4 10+

4874.8

8

Level Scheme

Intensities: Relative  $I_{\boldsymbol{\gamma}}$ 



	16528.7
	16384 5
$\underbrace{(34)}_{(34)} \qquad \downarrow \qquad \underbrace{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{1$	15177.9
(33)	15036.1
	14912.0
$(32) \qquad \qquad$	14813.0
	14049.6
$(31) \qquad \qquad$	13856.6
	13638.1
	13577.2
	13317.0
	13304.6
	12992.8
	12772.6
$(29) \qquad \qquad$	12721.3
	12593.9
(29)	12491.6
	<u>کې 12463.6</u>
	12359.5
	12169.0
	11869.0
(28+)	11821.5
	11623.9
27(-)	11553.9
(27)	11473.0
(26 <sup>-</sup> )	11265
(26 <sup>+</sup> )	11239.5
$0^+$	0.0







<sup>124</sup><sub>54</sub>Xe<sub>70</sub>



<sup>124</sup><sub>54</sub>Xe<sub>70</sub>

#### Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$ 



<sup>124</sup><sub>54</sub>Xe<sub>70</sub>

Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$ 







#### Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$ 





#### Level Scheme (continued)

Intensities: Relative  $I_{\boldsymbol{\gamma}}$ 



<sup>124</sup><sub>54</sub>Xe<sub>70</sub>

#### Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$ 



<sup>&</sup>lt;sup>124</sup><sub>54</sub>Xe<sub>70</sub>



<sup>124</sup><sub>54</sub>Xe<sub>70</sub>







