

A supplementary material to the paper

Polarisation labelling spectroscopy of the $D^1\Pi$ state in NaLi molecule

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Figure 1

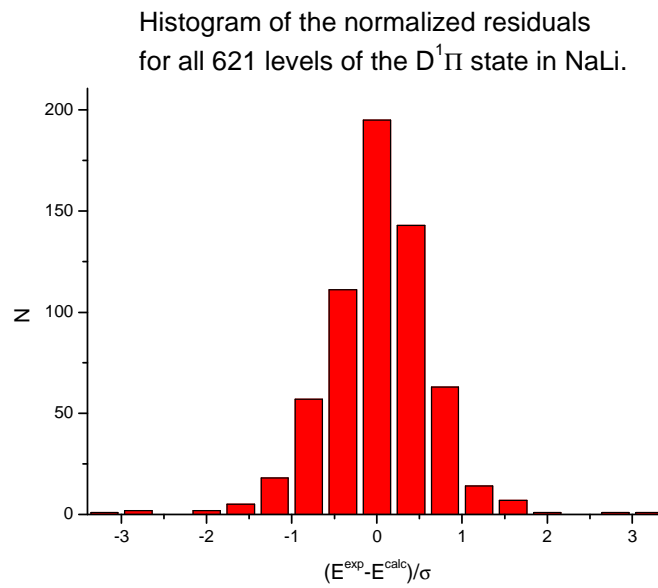


Figure 2

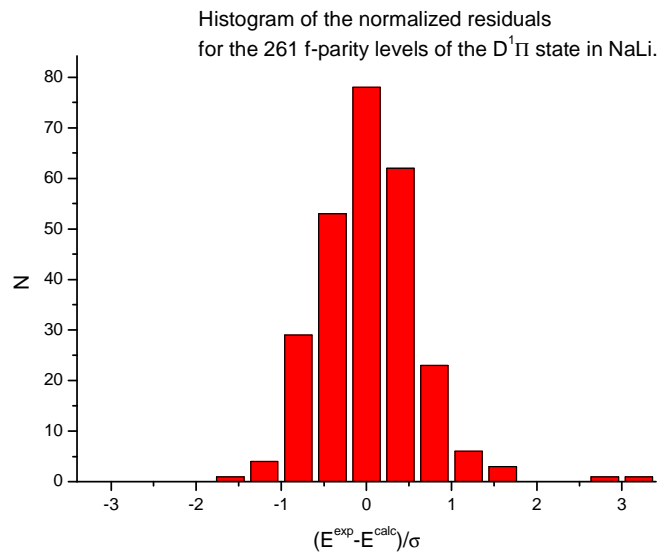


Figure 3

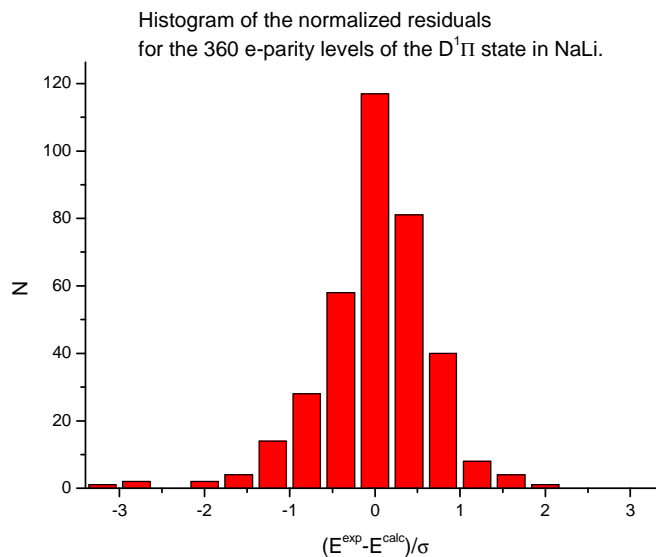


Table 1. Experimental lines frequencies (freq) of the X¹Σ⁺ (v'',J'') - D¹Π (v',J') band system in cm⁻¹. All transitions refer to the Na⁷Li isotopologue. Experimental uncertainty: 0.05 cm⁻¹.

n	v''	J''	v'	J'	freq
1	0	1	9	1	23423.96
2	0	1	9	2	23424.71
3	0	1	10	1	23526.45
4	0	1	10	2	23527.17
5	0	1	11	1	23621.16
6	0	1	11	2	23621.87
7	0	1	12	1	23707.31
8	0	1	12	2	23707.97
9	0	1	13	1	23783.74
10	0	1	13	2	23784.34
11	0	1	14	1	23849.26
12	0	1	14	2	23849.82
13	0	1	15	1	23901.88
14	0	3	14	2	23846.03
15	0	3	14	3	23846.88
16	0	3	14	4	23848.05
17	0	3	15	2	23898.56
18	0	3	15	3	23899.35
19	0	3	15	4	23900.35
20	0	3	16	3	23933.74
21	0	5	10	4	23519.21

22	0	5	10	5	23521.16
23	0	5	10	6	23523.35
24	0	5	11	4	23613.86
25	0	5	11	5	23615.63
26	0	5	11	6	23617.76
27	0	5	12	4	23699.81
28	0	5	12	5	23701.49
29	0	5	12	6	23703.49
30	0	5	13	4	23776.07
31	0	5	13	5	23777.68
32	0	5	13	6	23779.56
33	0	5	14	4	23841.35
34	0	5	14	5	23842.79
35	0	5	14	6	23844.51
36	0	5	15	4	23893.63
37	0	5	15	5	23894.92
38	0	5	15	6	23896.42
39	0	5	16	4	23927.68
40	0	5	16	5	23928.50
41	0	5	16	6	23929.44
42	0	7	10	7	23516.24
43	0	6	10	6	23518.85
44	0	9	11	9	23603.83
45	0	8	11	8	23607.38
46	0	7	11	7	23610.48
47	0	6	11	6	23613.28
48	0	5	12	5	23701.49
49	0	5	12	6	23703.49
50	0	11	12	11	23680.43
51	0	10	12	10	23684.98
52	0	9	12	9	23689.14
53	0	8	12	8	23692.81
54	0	7	12	7	23696.10
55	0	6	12	6	23699.03
56	0	1	12	1	23707.26
57	0	12	13	12	23750.31
58	0	11	13	11	23755.51
59	0	10	13	10	23760.31
60	0	9	13	9	23764.65
61	0	8	13	8	23768.56
62	0	7	13	7	23772.03
63	0	6	13	6	23775.05
64	0	14	14	14	23801.20
65	0	13	14	13	23807.70
66	0	12	14	12	23813.73
67	0	11	14	11	23819.31
68	0	10	14	10	23824.33
69	0	9	14	9	23828.97
70	0	8	14	8	23833.12
71	0	7	14	7	23836.82
72	0	6	14	6	23840.03
73	0	1	14	1	23849.25
74	0	5	9	4	23416.92
75	0	5	9	5	23418.85
76	0	5	9	6	23421.12
77	0	5	10	4	23519.29
78	0	5	10	5	23521.16

79	0	5	10	6	23523.35
80	0	5	11	4	23613.86
81	0	5	11	5	23615.63
82	0	5	11	6	23617.76
83	0	5	12	4	23699.83
84	0	5	12	5	23701.54
85	0	5	12	6	23703.49
86	0	5	13	4	23776.14
87	0	5	13	5	23777.72
88	0	5	13	6	23779.55
89	0	4	9	4	23420.68
90	0	4	10	4	23523.08
91	0	4	11	4	23617.65
92	0	4	12	3	23702.23
93	0	4	12	4	23703.58
94	0	4	12	5	23705.27
95	0	4	13	3	23778.62
96	0	4	13	4	23779.86
97	0	4	13	5	23781.49
98	0	4	14	4	23845.12
99	0	4	15	4	23897.43
100	0	7	14	6	23834.79
101	0	7	14	7	23836.81
102	0	7	14	8	23839.12
103	0	7	15	6	23886.69
104	0	7	15	7	23888.50
105	0	7	15	8	23890.49
106	0	7	16	7	23820.69
107	0	7	16	7	23921.34
108	0	3	9	2	23420.96
109	0	3	9	3	23422.12
110	0	3	9	4	23423.64
111	0	3	10	2	23523.44
112	0	3	10	3	23524.57
113	0	3	10	4	23526.01
114	0	3	11	2	23618.13
115	0	3	11	3	23619.21
116	0	3	11	4	23620.63
117	0	3	12	2	23704.19
118	0	3	12	3	23705.22
119	0	3	12	4	23706.56
120	0	3	13	2	23780.62
121	0	3	13	3	23781.57
122	0	3	13	4	23782.82
123	0	3	14	2	23846.07
124	0	3	14	3	23846.94
125	0	3	14	4	23848.07
126	0	3	15	2	23898.62
127	0	3	15	3	23899.40
128	0	3	15	4	23900.37
129	0	6	9	5	23414.34
130	0	6	9	6	23416.64
131	0	6	9	7	23419.34
132	0	6	10	5	23516.67
133	0	6	10	6	23518.90
134	0	6	10	7	23521.47
135	0	6	11	5	23611.16

136	0	6	11	6	23613.32
137	0	6	11	7	23615.77
138	0	6	12	5	23697.02
139	0	6	12	6	23699.05
140	0	6	12	7	23701.41
141	0	6	13	5	23773.20
142	0	6	13	6	23775.08
143	0	6	13	7	23777.26
144	0	6	14	5	23838.34
145	0	6	14	6	23840.06
146	0	6	14	7	23842.07
147	0	6	15	6	23891.98
148	0	6	15	7	23893.76
149	0	9	9	8	23404.44
150	0	9	9	9	23407.91
151	0	9	9	10	23411.72
152	0	9	10	8	23506.49
153	0	9	10	9	23509.81
154	0	9	10	10	23513.50
155	0	9	11	8	23600.68
156	0	9	11	9	23603.86
157	0	9	11	10	23607.40
158	0	9	12	8	23686.13
159	0	9	12	9	23689.17
160	0	9	12	10	23692.49
161	0	9	13	8	23761.85
162	0	9	13	9	23764.68
163	0	9	13	10	23767.80
164	0	9	14	8	23826.44
165	0	9	14	9	23829.01
166	0	9	14	10	23831.87
167	0	9	15	8	23877.83
168	0	9	15	9	23880.05
169	0	9	15	10	23882.57
170	1	10	2	9	22263.58
171	1	10	2	10	22268.02
172	1	10	2	11	22272.84
173	1	10	3	9	22404.70
174	1	10	3	10	22409.04
175	1	10	3	11	22413.84
176	1	10	4	9	22541.59
177	1	10	4	10	22545.86
178	1	10	4	11	22550.56
179	1	10	5	9	22673.85
180	1	10	5	10	22678.05
181	1	10	5	11	22682.70
182	1	10	6	9	22801.04
183	1	10	6	10	22805.18
184	1	10	6	11	22809.73
185	1	10	7	9	22922.72
186	1	10	7	10	22926.76
187	1	10	7	11	22931.20
188	1	10	8	9	23038.36
189	1	10	8	10	23042.31
190	1	10	8	11	23046.65
191	1	10	9	9	23147.48
192	1	10	9	10	23151.28

193	1	10	9	11	23155.48
194	1	10	10	9	23249.38
195	1	10	10	10	23253.06
196	1	10	10	11	23257.12
197	1	10	11	9	23343.41
198	1	10	11	10	23346.94
199	1	10	11	11	23350.83
200	1	10	12	9	23428.76
201	1	10	12	10	23432.09
202	1	10	12	11	23435.77
203	1	10	13	10	23507.37
204	1	10	14	10	23571.46
205	1	10	15	10	23622.16
206	0	12	9	11	23391.26
207	0	12	9	12	23395.83
208	0	12	9	13	23400.80
209	0	12	10	11	23492.90
210	0	12	10	12	23497.31
211	0	12	10	13	23502.09
212	0	12	11	11	23586.59
213	0	12	11	12	23590.82
214	0	12	11	13	23595.39
215	0	12	12	11	23671.52
216	0	12	12	12	23675.51
217	0	12	12	13	23679.84
218	0	12	13	11	23746.55
219	0	12	13	12	23750.30
220	0	12	13	13	23754.34
221	0	12	14	11	23810.33
222	0	12	14	12	23813.74
223	0	12	14	13	23817.43
224	0	12	15	11	23860.63
225	0	12	15	12	23863.58
226	0	12	15	13	23866.78
227	0	15	9	14	23374.79
228	0	15	9	15	23380.48
229	0	15	9	16	23386.57
230	0	15	10	14	23475.88
231	0	15	10	15	23481.38
232	0	15	10	16	23487.26
233	0	15	11	14	23568.97
234	0	15	11	15	23574.24
235	0	15	11	16	23579.84
236	0	15	12	14	23653.17
237	0	15	12	15	23658.14
238	0	15	12	16	23663.45
239	0	15	13	14	23727.37
240	0	15	13	15	23731.99
241	0	15	13	16	23736.93
242	0	15	14	14	23790.05
243	0	15	14	15	23794.27
244	0	15	14	16	23798.75
245	0	15	15	14	23838.87
246	0	15	15	15	23842.49
247	0	15	15	16	23846.33
248	0	17	3	17	22631.28
249	0	17	4	16	22760.31

250	0	17	4	17	22767.51
251	0	17	4	18	22775.22
252	0	17	5	16	22891.96
253	0	17	5	17	22899.06
254	0	17	5	18	22906.63
255	0	17	6	16	23018.43
256	0	17	6	17	23025.39
257	0	17	6	18	23032.82
258	0	17	7	16	23139.29
259	0	17	7	17	23146.10
260	0	17	7	18	23153.33
261	0	17	8	16	23253.99
262	0	17	8	17	23260.61
263	0	17	8	18	23267.69
264	0	17	9	16	23362.01
265	0	17	9	17	23368.42
266	0	17	9	18	23375.29
267	0	17	10	16	23462.69
268	0	17	10	17	23468.87
269	0	17	10	18	23475.47
270	0	17	11	16	23555.26
271	0	17	11	17	23561.18
272	0	17	11	18	23567.47
273	0	17	12	16	23638.91
274	0	17	12	17	23644.49
275	0	17	12	18	23650.44
276	0	17	13	16	23712.38
277	0	17	13	17	23717.59
278	0	17	13	18	23723.12
279	0	17	14	16	23774.19
280	0	17	14	17	23778.90
281	0	17	14	18	23783.92
282	0	17	15	16	23821.78
283	0	17	15	17	23825.79
284	0	17	15	18	23830.05
285	1	17	2	16	22231.01
286	1	17	2	17	22238.39
287	1	17	2	18	22246.27
288	1	17	3	16	22371.64
289	1	17	3	17	22378.96
290	1	17	3	18	22386.75
291	1	17	4	16	22507.99
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294	1	17	5	16	22639.64
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296	1	17	5	18	22654.32
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302	1	17	7	18	22901.03
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304	1	17	8	17	23008.30
305	1	17	8	18	23015.36
306	1	17	9	16	23109.69

307	1	17	9	17	23116.09
308	1	17	9	18	23122.92
309	2	17	2	16	21981.96
310	2	17	2	17	21989.36
311	2	17	2	18	21997.25
312	2	17	3	16	22122.65
313	2	17	3	17	22129.92
314	2	17	3	18	22137.76
315	2	17	4	16	22258.97
316	2	17	4	17	22266.19
317	2	17	4	18	22273.87
318	2	17	5	16	22390.61
319	2	17	5	17	22397.70
320	2	17	5	18	22405.31
321	2	17	6	16	22517.11
322	2	17	6	17	22524.04
323	2	17	6	18	22531.50
324	2	17	7	16	22637.92
325	2	17	7	17	22644.74
326	2	17	7	18	22651.97
327	2	17	8	16	22752.64
328	2	17	8	17	22759.26
329	2	17	8	18	22766.33
330	0	18	2	18	22485.13
331	0	18	3	17	22617.82
332	0	18	3	18	22625.59
333	0	18	4	17	22754.11
334	0	18	4	18	22761.75
335	0	18	4	19	22769.88
336	0	18	5	17	22885.67
337	0	18	5	18	22893.16
338	0	18	5	19	22901.15
339	0	18	6	17	23011.97
340	0	18	6	18	23019.39
341	0	18	6	19	23027.19
342	0	18	7	17	23132.68
343	0	18	7	18	23139.91
344	0	18	7	19	23147.54
345	0	18	8	17	23247.24
346	0	18	8	18	23254.23
347	0	18	8	19	23261.68
348	0	18	9	17	23355.04
349	0	18	9	18	23361.80
350	0	18	9	19	23369.04
351	0	18	10	17	23455.47
352	0	18	10	18	23462.00
353	0	18	10	19	23468.96
354	0	18	11	17	23547.77
355	0	18	11	18	23554.04
356	0	18	11	19	23560.67
357	0	18	12	17	23631.07
358	0	18	12	18	23636.99
359	0	18	12	19	23643.25
360	0	18	13	17	23704.18
361	0	18	13	18	23709.68
362	0	18	13	19	23715.51
363	0	18	14	17	23765.49

364	0	18	14	18	23770.46
365	0	18	14	19	23775.73
366	0	18	15	17	23812.38
367	0	18	15	18	23816.59
368	0	18	15	19	23820.99
369	0	19	11	18	23539.97
370	0	19	11	19	23546.55
371	0	19	11	20	23553.52
372	0	19	12	18	23622.91
373	0	19	12	19	23629.13
374	0	19	12	20	23635.71
375	0	19	13	18	23695.60
376	0	19	13	19	23701.39
377	0	19	13	20	23707.49
378	0	19	14	18	23756.37
379	0	19	14	19	23761.63
380	0	19	14	20	23767.12
381	0	19	15	18	23802.49
382	0	19	15	19	23806.89
383	0	19	15	20	23811.47
384	1	19	1	19	22082.96
385	1	19	2	18	22219.00
386	1	19	2	19	22227.25
387	1	19	2	20	22235.99
388	1	19	3	18	22359.48
389	1	19	3	19	22367.62
390	1	19	3	20	22376.28
391	1	19	4	18	22495.64
392	1	19	4	19	22503.68
393	1	19	4	20	22512.23
394	1	19	5	18	22627.06
395	1	19	5	19	22634.95
396	1	19	5	20	22643.36
397	1	19	6	18	22753.24
398	1	19	6	19	22761.01
399	1	19	6	20	22769.21
400	1	19	7	18	22873.76
401	1	19	7	19	22881.37
402	1	19	7	20	22889.40
403	1	19	8	19	22995.48
404	0	20	11	19	23531.69
405	0	20	11	20	23538.60
406	0	20	11	21	23545.90
407	0	20	12	19	23614.26
408	0	20	12	20	23620.80
409	0	20	12	21	23627.70
410	0	20	13	19	23686.50
411	0	20	13	20	23692.58
412	0	20	13	21	23698.97
413	0	20	14	19	23746.76
414	0	20	14	20	23752.20
415	0	20	14	21	23757.96
416	0	20	15	19	23792.01
417	0	20	15	20	23796.57
418	0	20	15	21	23801.28
419	0	21	3	20	22597.84
420	0	21	3	21	22606.82

421	0	21	4	20	22733.78
422	0	21	4	21	22742.66
423	0	21	4	22	22752.01
424	0	21	5	20	22864.91
425	0	21	5	21	22873.63
426	0	21	5	22	22882.87
427	0	21	6	20	22990.80
428	0	21	6	21	22999.36
429	0	21	6	22	23008.41
430	0	21	7	20	23110.98
431	0	21	7	21	23119.32
432	0	21	7	22	23128.17
433	0	21	8	20	23224.88
434	0	21	8	21	23233.02
435	0	21	8	22	23241.63
436	0	21	9	20	23332.00
437	0	21	9	21	23339.85
438	0	21	9	22	23348.19
439	0	21	10	20	23431.64
440	0	21	10	21	23439.20
441	0	21	10	22	23447.21
442	0	21	11	20	23523.02
443	0	21	11	21	23530.25
444	0	21	11	22	23537.90
445	0	21	12	20	23605.22
446	0	21	12	21	23612.04
447	0	21	12	22	23619.25
448	0	21	13	20	23676.99
449	0	21	13	21	23683.34
450	0	21	13	22	23690.03
451	0	21	14	20	23736.62
452	0	21	14	21	23742.33
453	0	21	14	22	23748.33
454	0	21	15	20	23780.96
455	0	21	15	21	23785.66
456	1	21	2	20	22205.75
457	1	21	2	21	22214.83
458	1	21	2	22	22224.45
459	1	21	3	20	22346.04
460	1	21	3	21	22355.03
461	1	21	3	22	22364.54
462	1	21	4	20	22481.97
463	1	21	4	21	22490.84
464	1	21	4	22	22500.22
465	1	21	5	20	22613.11
466	1	21	5	21	22621.81
467	1	21	5	22	22631.05
468	1	21	6	20	22738.97
469	1	21	6	21	22747.53
470	1	21	6	22	22756.59
471	1	21	7	20	22859.13
472	1	21	7	21	22867.50
473	1	21	7	22	22876.35
474	1	21	8	20	22973.05
475	1	21	8	21	22981.18
476	1	21	8	22	22989.78
477	1	21	9	20	23080.16

478	1	21	9	21	23088.02
479	1	21	9	22	23096.35
480	1	21	10	20	23179.81
481	1	21	10	21	23187.36
482	0	22	11	21	23513.97
483	0	22	11	22	23521.55
484	0	22	11	23	23529.51
485	0	22	12	21	23595.76
486	0	22	12	22	23602.92
487	0	22	12	23	23610.39
488	0	22	13	21	23667.05
489	0	22	13	22	23673.67
490	0	22	13	23	23680.60
491	0	22	14	21	23726.05
492	0	22	14	22	23731.98
493	0	22	14	23	23738.19
494	0	22	15	21	23769.38
495	0	22	15	22	23774.16
496	0	23	11	22	23504.50
497	0	23	11	23	23512.39
498	0	23	11	24	23520.69
499	0	23	12	22	23585.86
500	0	23	12	23	23593.31
501	0	23	12	24	23601.11
502	0	23	13	22	23656.61
503	0	23	13	23	23663.49
504	0	23	13	24	23670.70
505	0	23	14	22	23714.93
506	0	23	14	23	23721.09
507	0	23	14	24	23727.51
508	0	23	15	22	23757.08
509	0	23	15	23	23761.94
510	0	24	11	23	23494.64
511	0	24	11	24	23502.85
512	0	24	11	25	23511.48
513	0	24	12	23	23575.54
514	0	24	12	24	23583.27
515	0	24	12	25	23591.38
516	0	24	13	23	23645.75
517	0	24	13	24	23652.89
518	0	24	13	25	23660.34
519	0	24	14	23	23703.34
520	0	24	14	24	23709.70
521	0	24	14	25	23716.32
522	0	24	15	23	23749.14
523	0	25	2	24	22426.96
524	0	25	2	25	22437.75
525	0	25	2	26	22449.08
526	0	25	3	24	22566.85
527	0	25	3	25	22577.49
528	0	25	3	26	22588.69
529	0	25	4	24	22702.26
530	0	25	4	25	22712.76
531	0	25	4	26	22723.84
532	0	25	5	24	22832.77
533	0	25	5	25	22843.08
534	0	25	5	26	22853.94

535	0	25	6	24	22957.89
536	0	25	6	25	22968.02
537	0	25	6	26	22978.66
538	0	25	7	24	23077.22
539	0	25	7	25	23087.09
540	0	25	7	26	23097.48
541	0	25	8	24	23190.15
542	0	25	8	25	23199.77
543	0	25	8	26	23209.86
544	0	25	9	24	23296.13
545	0	25	9	25	23305.41
546	0	25	9	26	23315.19
547	0	25	10	24	23394.49
548	0	25	10	25	23403.43
549	0	25	10	26	23412.81
550	0	25	11	24	23484.36
551	0	25	11	25	23492.90
552	0	25	11	26	23501.84
553	0	25	12	24	23564.79
554	0	25	12	25	23572.81
555	0	25	12	26	23581.22
556	0	25	13	24	23634.39
557	0	25	13	25	23641.79
558	0	25	13	26	23649.53
559	0	25	14	24	23691.21
560	0	25	14	25	23697.78
561	0	25	14	26	23704.62
562	1	25	1	25	22042.74
563	1	25	2	24	22175.77
564	1	25	2	25	22186.54
565	1	25	2	26	22197.87
566	1	25	3	24	22315.63
567	1	25	3	25	22326.29
568	1	25	3	26	22337.51
569	1	25	4	24	22451.05
570	1	25	4	25	22461.54
571	1	25	4	26	22472.59
572	1	25	5	24	22581.54
573	1	25	5	25	22591.86
574	1	25	5	26	22602.75
575	1	25	6	24	22706.69
576	1	25	6	25	22716.80
577	1	25	6	26	22727.44
578	1	25	7	24	22825.99
579	1	25	7	25	22835.86
580	1	25	7	26	22846.26
581	1	25	8	24	22938.93
582	1	25	8	25	22948.53
583	1	25	8	26	22958.65
584	1	25	9	24	23044.95
585	1	25	9	25	23054.22
586	1	25	9	26	23064.00
587	1	25	10	24	23143.29
588	1	25	10	25	23152.20
589	1	25	10	26	23161.56
590	0	29	4	28	22665.75
591	0	29	4	29	22677.83

592	0	29	4	30	22690.52
593	0	29	5	28	22795.47
594	0	29	5	29	22807.37
595	0	29	5	30	22819.86
596	0	29	6	28	22919.73
597	0	29	6	29	22931.38
598	0	29	6	30	22943.61
599	0	29	7	28	23037.99
600	0	29	7	29	23049.37
601	0	29	7	30	23061.30
602	0	29	8	28	23149.76
603	0	29	8	29	23160.82
604	0	29	8	30	23172.40
605	0	29	9	28	23254.39
606	0	29	9	29	23265.09
607	0	29	9	30	23276.26
608	0	29	10	28	23351.18
609	0	29	10	29	23361.42
610	0	29	10	30	23372.14
611	0	29	11	28	23439.26
612	0	29	11	29	23449.00
613	0	29	11	30	23459.19
614	0	29	12	28	23517.49
615	0	29	12	29	23526.62
616	0	29	12	30	23536.15
617	0	29	13	28	23584.39
618	0	29	13	29	23592.75
619	0	29	13	30	23601.45
620	0	29	14	28	23637.52
621	0	29	14	29	23644.81
622	0	29	14	30	23652.36
623	0	30	2	29	22381.99
624	0	30	2	31	22408.29
625	0	30	3	29	22521.20
626	0	30	3	30	22533.87
627	0	30	3	31	22547.20
628	0	30	4	29	22655.80
629	0	30	4	30	22668.33
630	0	30	4	31	22681.41
631	0	30	5	29	22785.35
632	0	30	5	30	22797.63
633	0	30	5	31	22810.50
634	0	30	6	29	22909.33
635	0	30	6	30	22921.38
636	0	30	6	31	22933.99
637	0	30	7	29	23027.33
638	0	30	7	30	23039.09
639	0	30	7	31	23051.36
640	0	30	8	29	23138.78
641	0	30	8	30	23150.18
642	0	30	8	31	23162.11
643	0	30	9	29	23243.04
644	0	30	9	30	23254.05
645	0	30	9	31	23265.58
646	0	30	10	29	23339.37
647	0	30	10	30	23349.94
648	0	30	10	31	23360.98

649	0	30	11	29	23426.92
650	0	30	11	30	23436.97
651	0	30	11	31	23447.42
652	0	30	12	29	23504.49
653	0	30	12	30	23513.93
654	0	30	12	31	23523.63
655	2	30	1	30	21754.28
656	2	30	2	29	21884.72
657	2	30	2	30	21897.55
658	2	30	2	31	21911.00
659	2	30	3	29	22023.94
660	2	30	3	30	22036.62
661	2	30	3	31	22049.89
662	2	30	4	29	22158.53
663	2	30	4	30	22171.03
664	2	30	4	31	22184.12
665	2	30	5	29	22288.07
666	2	30	5	30	22300.33
667	2	30	5	31	22313.22
668	2	30	6	29	22412.06
669	2	30	6	30	22424.08
670	2	30	6	31	22436.70
671	2	30	7	29	22530.06
672	2	30	7	30	22541.78
673	2	30	7	31	22554.08
674	2	30	8	29	22641.43
675	2	30	8	30	22652.88
676	2	30	8	31	22664.81
677	2	30	9	29	22745.73
678	2	30	9	30	22756.74
679	2	30	9	31	22768.28
680	2	30	10	30	22852.63
681	2	33	1	32	21712.40
682	2	33	1	33	21726.59
683	2	33	1	34	21741.42
684	2	33	2	32	21855.40
685	2	33	2	33	21869.47
686	2	33	2	34	21884.19
687	2	33	3	32	21994.18
688	2	33	3	33	22008.06
689	2	33	3	34	22022.59
690	2	33	4	32	22128.17
691	2	33	4	33	22141.87
692	2	33	4	34	22156.24
693	2	33	5	32	22257.03
694	2	33	5	33	22270.48
695	2	33	5	34	22284.51
696	2	33	6	32	22380.25
697	2	33	6	33	22393.41
698	2	33	6	34	22407.18
699	2	33	7	32	22497.34
700	2	33	7	33	22510.16
701	2	33	7	34	22523.56
702	2	33	8	32	22607.70
703	2	33	8	33	22620.15
704	2	33	8	34	22633.16
705	2	33	9	32	22710.73

706	2	33	9	33	22722.75
707	2	33	9	34	22735.30
708	2	33	10	33	22817.14
709	1	36	2	35	22069.22
710	1	36	2	36	22084.52
711	1	36	2	37	22100.44
712	1	36	3	35	22207.49
713	1	36	3	36	22222.56
714	1	36	3	37	22238.31
715	1	36	4	35	22340.87
716	1	36	4	36	22355.71
717	1	36	4	37	22371.22
718	1	36	5	35	22468.93
719	1	36	5	36	22483.51
720	1	36	5	37	22498.73
721	1	36	6	35	22591.25
722	1	36	6	36	22605.49
723	1	36	6	37	22620.39
724	1	36	7	35	22707.29
725	1	36	7	36	22721.18
726	1	36	7	37	22735.68
727	1	36	8	35	22816.47
728	1	36	8	36	22829.94
729	1	36	8	37	22843.99
730	1	36	9	35	22918.14
731	1	36	9	36	22931.11
732	1	36	9	37	22944.65
733	1	36	10	35	23011.43
734	1	36	10	36	23023.85
735	1	36	10	37	23036.77
736	0	40	3	40	22423.95
737	0	40	4	39	22539.73
738	0	40	4	40	22556.09
739	0	40	5	39	22666.70
740	0	40	5	40	22682.71
741	0	40	5	41	22699.45
742	0	40	6	39	22787.64
743	0	40	6	40	22803.34
744	0	40	6	41	22819.69
745	0	40	7	39	22902.13
746	0	40	7	40	22917.39
747	0	40	7	41	22933.30
748	0	40	8	39	23009.50
749	0	40	8	40	23024.29
750	0	40	8	41	23039.68
751	0	40	9	39	23109.06
752	0	40	9	40	23123.29
753	0	40	9	41	23138.10
754	0	45	3	45	22357.72
755	0	45	4	44	22470.24
756	0	45	4	45	22488.40
757	0	45	4	46	22507.34
758	0	45	5	44	22595.49
759	0	45	5	45	22613.29
760	0	45	5	46	22631.90
761	0	45	6	44	22714.50
762	0	45	6	45	22731.88

763	0	45	6	46	22750.02
764	0	45	7	44	22826.70
765	0	45	7	45	22843.58
766	0	45	7	46	22861.21
767	0	45	8	44	22931.44
768	0	45	8	45	22947.77
769	0	45	8	46	22964.75
770	0	45	9	44	23027.91
771	0	45	9	45	23043.56
772	0	45	9	46	23059.83
773	0	45	10	44	23115.09
774	0	45	10	45	23129.94
775	0	45	10	46	23145.32
776	0	45	11	44	23191.61
777	0	45	11	45	23205.45
778	0	45	11	46	23219.75
779	0	45	12	44	23255.32
780	0	45	12	45	23267.82
781	0	45	12	46	23280.62
782	1	46	3	45	22078.39
783	1	46	3	46	22097.25
784	1	46	3	47	22117.00
785	1	46	4	45	22209.10
786	1	46	4	46	22227.63
787	1	46	4	47	22246.98
788	1	46	5	45	22333.98
789	1	46	5	46	22352.14
790	1	46	5	47	22371.10
791	1	46	6	45	22452.57
792	1	46	6	46	22470.28
793	1	46	6	47	22488.77
794	1	46	7	45	22564.25
795	1	46	7	46	22581.47
796	1	46	7	47	22599.47
797	1	46	8	45	22668.43
798	1	46	8	46	22685.05
799	1	46	8	47	22702.34
800	1	46	9	45	22764.20
801	1	46	9	46	22780.13
802	1	46	9	47	22796.67
803	1	46	10	45	22850.56
804	1	46	10	46	22865.66
805	1	46	11	45	22926.04
806	1	46	11	46	22940.11
807	0	47	6	46	22682.96
808	0	47	6	47	22701.03
809	0	47	6	48	22719.84
810	0	47	7	46	22794.15
811	0	47	7	47	22811.69
812	0	47	7	48	22829.93
813	0	47	8	46	22897.69
814	0	47	8	47	22914.62
815	0	47	8	48	22932.22
816	0	47	9	46	22992.75
817	0	47	9	47	23008.96
818	0	47	9	48	23025.79
819	0	47	10	46	23078.27

820	0	47	10	47	23093.57
821	0	47	10	48	23109.46
822	0	47	11	46	23152.68
823	0	47	11	47	23166.89
824	0	47	11	48	23181.54
825	0	47	12	46	23213.53
826	0	47	12	47	23226.18
827	0	47	12	48	23239.10
828	1	56	3	55	21920.87
829	1	56	3	56	21943.26
830	1	56	3	57	21966.63
831	1	56	4	55	22047.86
832	1	56	4	56	22069.80
833	1	56	4	57	22092.70
834	1	56	5	56	22189.77
835	1	56	5	57	22212.12
836	1	56	6	55	22281.76
837	1	56	6	56	22302.59
838	1	56	6	57	22324.31
839	1	56	7	55	22387.42
840	1	56	7	56	22407.59
841	1	56	7	57	22428.51
842	1	56	8	55	22484.48
843	1	56	8	56	22503.79
844	1	56	8	57	22523.83
845	1	56	9	55	22571.79
846	1	56	9	56	22590.08
847	1	56	9	57	22609.01
848	1	56	10	55	22647.66
849	1	56	10	56	22664.64
850	1	56	10	57	22682.12
851	1	56	11	55	22709.20
852	1	56	11	56	22724.21
853	1	56	11	57	22739.42

Table 2. Experimental energies of (v, J, par) rovibrational levels in the $D^1\Pi$ state (E_{exp}) compared with the eigenvalues calculated from the IPA potential energy curve (E_{calc}). Par denotes parity of the level: e or f parity. Energies are given in cm^{-1} above the minimum of the ground state potential. All levels refer to the Na^7Li isotopologue.

N	v	J	par	E_{exp}	E_{calc}	Diff
1	9	1	f	23552.541	23552.514	0.027
2	10	1	f	23655.030	23655.048	-0.018
3	11	1	f	23749.741	23749.776	-0.035
4	12	1	f	23835.866	23835.857	0.009
5	13	1	f	23912.321	23912.323	-0.003
6	14	1	f	23977.835	23977.778	0.058
7	15	1	f	24030.461	24030.439	0.022
7	16	1	f	24065.140	24065.124	0.016
8	9	2	e	23553.287	23553.282	0.006
9	10	2	e	23655.756	23655.788	-0.032
10	11	2	e	23750.452	23750.485	-0.034
11	12	2	e	23836.532	23836.531	0.001
12	13	2	e	23912.931	23912.954	-0.023
13	14	2	e	23978.382	23978.357	0.025
14	15	2	e	24030.912	24030.950	-0.037
7	16	2	f	24065.449	24065.485	-0.036
15	9	3	f	23554.442	23554.431	0.011
16	10	3	f	23656.893	23656.897	-0.004
17	11	3	f	23751.534	23751.548	-0.014
18	12	3	f	23837.543	23837.539	0.004
19	12	3	e	23837.546	23837.540	0.006
20	13	3	f	23913.893	23913.900	-0.007
21	13	3	e	23913.935	23913.901	0.034
22	14	3	f	23979.233	23979.223	0.009
23	15	3	f	24031.698	24031.714	-0.016
24	16	3	f	24066.063	24066.024	0.039
25	9	4	f	23555.996	23555.964	0.032
26	9	4	e	23555.970	23555.965	0.005
27	10	4	f	23658.396	23658.376	0.020
28	10	4	e	23658.315	23658.377	-0.062
29	11	4	f	23752.966	23752.965	0.002
30	11	4	e	23752.929	23752.966	-0.038
31	12	4	f	23838.896	23838.885	0.011
32	12	4	e	23838.879	23838.886	-0.007
33	13	4	f	23915.175	23915.160	0.015
34	13	4	e	23915.156	23915.162	-0.006
35	14	4	f	23980.435	23980.379	0.056
36	14	4	e	23980.391	23980.380	0.010
37	15	4	f	24032.746	24032.732	0.014
38	15	4	e	24032.684	24032.733	-0.049
39	16	4	e	24066.737	24066.736	0.001
40	9	5	f	23557.906	23557.879	0.028
41	9	5	e	23557.885	23557.881	0.004
42	10	5	f	23660.217	23660.223	-0.006
43	10	5	e	23660.215	23660.226	-0.011
44	11	5	f	23754.688	23754.735	-0.047
45	11	5	e	23754.705	23754.737	-0.032
46	12	5	f	23840.564	23840.565	-0.001

47	12	5	e	23840.575	23840.568	0.007
48	13	5	f	23916.757	23916.734	0.023
49	13	5	e	23916.775	23916.737	0.039
50	14	5	f	23981.846	23981.821	0.025
51	14	5	e	23981.885	23981.824	0.061
52	15	5	f	24033.977	24034.001	-0.025
53	16	5	f	24067.557	24067.611	-0.054
54	9	6	f	23560.186	23560.176	0.010
55	9	6	e	23560.176	23560.180	-0.004
56	10	6	f	23662.420	23662.439	-0.019
57	10	6	e	23662.406	23662.443	-0.036
58	11	6	f	23756.845	23756.858	-0.013
59	11	6	e	23756.817	23756.861	-0.045
60	12	6	f	23842.585	23842.580	0.005
61	12	6	e	23842.547	23842.584	-0.037
62	13	6	f	23918.611	23918.621	-0.010
63	13	6	e	23918.613	23918.625	-0.012
64	14	6	f	23983.590	23983.550	0.040
65	14	6	e	23983.568	23983.554	0.014
66	15	6	f	24035.526	24035.522	0.004
67	15	6	e	24035.473	24035.525	-0.052
68	16	6	e	24068.496	24068.655	-0.159
69	9	7	e	23562.885	23562.860	0.025
70	10	7	f	23665.021	23665.023	-0.003
71	10	7	e	23665.016	23665.028	-0.012
72	11	7	f	23759.261	23759.333	-0.072
73	11	7	e	23759.315	23759.338	-0.023
74	12	7	f	23844.880	23844.929	-0.049
75	12	7	e	23844.955	23844.934	0.021
76	13	7	f	23920.810	23920.820	-0.011
77	13	7	e	23920.805	23920.825	-0.020
78	14	7	f	23985.596	23985.564	0.032
79	14	7	e	23985.616	23985.569	0.047
80	15	7	f	24037.280	24037.290	-0.010
81	15	7	e	24037.305	24037.295	0.010
83	9	8	e	23565.929	23565.921	0.008
84	10	8	e	23667.980	23667.980	-0.001
85	11	8	f	23762.143	23762.160	-0.017
86	11	8	e	23762.169	23762.166	0.004
87	12	8	f	23847.573	23847.611	-0.039
88	12	8	e	23847.620	23847.617	0.003
89	13	8	f	23923.323	23923.330	-0.008
90	13	8	e	23923.339	23923.336	0.003
91	14	8	f	23987.881	23987.861	0.020
92	14	8	e	23987.914	23987.867	0.047
93	15	8	e	24039.295	24039.311	-0.016
94	2	9	e	22685.453	22685.518	-0.065
95	3	9	e	22826.572	22826.587	-0.015
96	4	9	e	22963.462	22963.464	-0.001
97	5	9	e	23095.722	23095.727	-0.005
98	6	9	e	23222.912	23222.929	-0.018
99	7	9	e	23344.593	23344.609	-0.016
100	8	9	e	23460.232	23460.258	-0.026
101	9	9	f	23569.399	23569.355	0.045
102	9	9	e	23569.353	23569.362	-0.009
103	10	9	f	23671.300	23671.292	0.008
104	10	9	e	23671.253	23671.300	-0.046

105	11	9	f	23765.334	23765.336	-0.002
106	11	9	e	23765.283	23765.344	-0.061
107	12	9	f	23850.645	23850.625	0.019
108	12	9	e	23850.632	23850.633	0.000
109	13	9	f	23926.154	23926.150	0.004
110	14	9	f	23990.480	23990.440	0.039
111	15	9	f	24041.540	24041.562	-0.022
112	2	10	f	22689.892	22689.891	0.001
113	3	10	f	22830.912	22830.915	-0.003
114	4	10	f	22967.732	22967.736	-0.004
115	5	10	f	23099.923	23099.931	-0.008
116	6	10	f	23227.052	23227.055	-0.003
117	7	10	f	23348.632	23348.644	-0.012
118	8	10	f	23464.183	23464.189	-0.006
119	9	10	f	23573.152	23573.174	-0.023
120	9	10	e	23573.210	23573.183	0.027
121	10	10	f	23674.933	23674.975	-0.042
122	10	10	e	23674.989	23674.984	0.005
123	11	10	f	23768.812	23768.863	-0.051
124	11	10	e	23768.890	23768.872	0.018
125	12	10	f	23853.952	23853.970	-0.018
126	12	10	e	23853.980	23853.979	0.001
127	13	10	f	23929.257	23929.278	-0.021
128	13	10	e	23929.290	23929.287	0.003
129	14	10	f	23993.313	23993.299	0.014
130	14	10	e	23993.358	23993.308	0.050
131	15	10	f	24044.033	24044.059	-0.027
132	15	10	e	24044.060	24044.069	-0.009
133	2	11	e	22694.712	22694.720	-0.007
134	3	11	e	22835.712	22835.693	0.019
135	4	11	e	22972.433	22972.452	-0.019
136	5	11	e	23104.572	23104.573	-0.001
137	6	11	e	23231.603	23231.610	-0.007
138	7	11	e	23353.072	23353.099	-0.027
139	8	11	e	23468.523	23468.529	-0.006
140	9	11	e	23577.376	23577.383	-0.008
141	10	11	e	23679.015	23679.034	-0.018
142	11	11	e	23772.715	23772.748	-0.033
143	12	11	f	23857.608	23857.644	-0.036
144	12	11	e	23857.650	23857.655	-0.005
145	13	11	f	23932.688	23932.712	-0.024
146	13	11	e	23932.689	23932.723	-0.034
147	14	11	f	23996.489	23996.435	0.054
148	14	11	e	23996.468	23996.446	0.022
149	15	11	e	24046.769	24046.803	-0.034
150	9	12	f	23581.968	23581.948	0.020
151	10	12	f	23683.449	23683.434	0.015
152	11	12	f	23776.959	23776.959	0.000
153	12	12	f	23861.648	23861.645	0.003
154	13	12	f	23936.444	23936.451	-0.007
155	14	12	f	23999.874	23999.847	0.027
156	15	12	f	24049.718	24049.757	-0.039
157	9	13	e	23586.939	23586.915	0.024
158	10	13	e	23688.228	23688.222	0.006
159	11	13	e	23781.529	23781.541	-0.012
160	12	13	e	23865.978	23865.988	-0.010
161	13	13	e	23940.478	23940.507	-0.029

162	14	13	f	24003.540	24003.530	0.010
163	14	13	e	24003.568	24003.546	0.022
164	15	13	e	24052.918	24052.963	-0.046
165	9	14	e	23592.259	23592.245	0.014
166	10	14	e	23693.350	23693.358	-0.008
167	11	14	e	23786.440	23786.455	-0.015
168	12	14	e	23870.639	23870.643	-0.004
169	13	14	e	23944.839	23944.851	-0.013
170	14	14	f	24007.484	24007.484	0.000
171	14	14	e	24007.520	24007.501	0.019
172	15	14	e	24056.339	24056.377	-0.039
173	9	15	f	23597.950	23597.929	0.021
174	10	15	f	23698.850	23698.835	0.016
175	11	15	f	23791.710	23791.692	0.018
176	12	15	f	23875.610	23875.601	0.009
177	13	15	f	23949.460	23949.473	-0.014
178	14	15	f	24011.739	24011.703	0.036
179	15	15	f	24059.960	24059.985	-0.026
180	2	16	e	22725.341	22725.336	0.005
181	3	16	e	22866.001	22865.986	0.014
182	4	16	e	23002.346	23002.348	-0.003
183	5	16	e	23133.992	23133.991	0.001
184	6	16	e	23260.475	23260.471	0.003
185	7	16	e	23381.315	23381.320	-0.005
186	8	16	e	23496.022	23496.015	0.008
187	9	16	e	23604.048	23604.026	0.022
188	10	16	e	23704.737	23704.709	0.028
189	11	16	e	23797.312	23797.309	0.003
190	12	16	e	23880.942	23880.919	0.023
191	13	16	e	23954.418	23954.430	-0.013
192	14	16	e	24016.232	24016.207	0.025
193	15	16	e	24063.817	24063.839	-0.022
194	2	17	f	22732.730	22732.733	-0.002
195	3	17	f	22873.309	22873.304	0.004
196	3	17	e	22873.274	22873.330	-0.056
197	4	17	f	23009.565	23009.569	-0.004
198	4	17	e	23009.563	23009.594	-0.031
199	5	17	f	23141.089	23141.094	-0.006
200	5	17	e	23141.124	23141.120	0.004
201	6	17	f	23267.428	23267.439	-0.010
202	6	17	e	23267.424	23267.464	-0.039
203	7	17	f	23388.128	23388.130	-0.002
204	7	17	e	23388.133	23388.155	-0.022
205	8	17	f	23502.645	23502.645	0.001
206	8	17	e	23502.694	23502.670	0.024
207	9	17	f	23610.457	23610.449	0.008
208	9	17	e	23610.493	23610.474	0.019
209	10	17	f	23710.924	23710.894	0.030
210	10	17	e	23710.924	23710.920	0.005
211	11	17	f	23803.235	23803.220	0.015
212	11	17	e	23803.223	23803.245	-0.022
213	12	17	f	23886.545	23886.510	0.036
214	12	17	e	23886.524	23886.535	-0.011
215	13	17	f	23959.645	23959.635	0.010
216	13	17	e	23959.633	23959.660	-0.027
217	14	17	f	24020.956	24020.925	0.030
218	14	17	e	24020.944	24020.951	-0.007

219	15	17	f	24067.844	24067.845	-0.001
220	15	17	e	24067.835	24067.870	-0.036
221	2	18	f	22740.585	22740.583	0.002
222	2	18	e	22740.626	22740.611	0.015
223	3	18	f	22881.044	22881.070	-0.027
224	3	18	e	22881.117	22881.099	0.018
225	4	18	f	23017.204	23017.232	-0.028
226	4	18	e	23017.269	23017.260	0.009
227	5	18	f	23148.614	23148.633	-0.019
228	5	18	e	23148.684	23148.661	0.023
229	6	18	f	23274.844	23274.832	0.012
230	6	18	e	23274.871	23274.860	0.011
231	7	18	f	23395.364	23395.357	0.007
232	7	18	e	23395.376	23395.385	-0.009
233	8	18	f	23509.684	23509.680	0.004
234	8	18	e	23509.715	23509.708	0.007
235	9	18	f	23617.255	23617.264	-0.010
236	9	18	e	23617.307	23617.293	0.014
237	10	18	f	23717.454	23717.457	-0.003
238	10	18	e	23717.526	23717.485	0.041
239	11	18	f	23809.493	23809.490	0.002
240	11	18	e	23809.542	23809.519	0.023
241	12	18	f	23892.444	23892.439	0.005
242	12	18	e	23892.496	23892.467	0.029
243	13	18	f	23965.133	23965.151	-0.018
244	13	18	e	23965.181	23965.180	0.001
245	14	18	f	24025.915	24025.920	-0.005
246	14	18	e	24025.966	24025.948	0.018
247	15	18	f	24072.044	24072.058	-0.015
248	15	18	e	24072.092	24072.087	0.005
249	1	19	f	22604.610	22604.584	0.026
250	2	19	f	22748.899	22748.863	0.036
251	3	19	f	22889.268	22889.261	0.007
252	4	19	f	23025.329	23025.313	0.016
253	4	19	e	23025.335	23025.344	-0.010
254	5	19	f	23156.598	23156.582	0.016
255	5	19	e	23156.604	23156.614	-0.010
256	6	19	f	23282.659	23282.628	0.031
257	6	19	e	23282.643	23282.659	-0.016
258	7	19	f	23403.018	23402.976	0.042
259	7	19	e	23402.993	23403.008	-0.015
260	8	19	f	23517.129	23517.096	0.033
261	8	19	e	23517.133	23517.128	0.006
262	9	19	e	23624.493	23624.479	0.013
263	10	19	e	23724.415	23724.404	0.011
264	11	19	f	23816.139	23816.096	0.043
265	11	19	e	23816.134	23816.127	0.007
266	12	19	f	23898.719	23898.682	0.037
267	12	19	e	23898.710	23898.713	-0.003
268	13	19	f	23970.978	23970.954	0.025
269	13	19	e	23970.960	23970.985	-0.025
270	14	19	f	24031.219	24031.164	0.054
271	14	19	e	24031.200	24031.196	0.004
272	15	19	f	24076.478	24076.443	0.035
273	15	19	e	24076.455	24076.474	-0.020
274	2	20	e	22757.624	22757.607	0.017
275	3	20	e	22897.907	22897.911	-0.004

276	4	20	e	23033.848	23033.846	0.001
277	5	20	e	23164.981	23164.977	0.004
278	6	20	e	23290.849	23290.860	-0.012
279	7	20	e	23411.025	23411.022	0.003
280	8	20	e	23524.923	23524.927	-0.004
281	9	20	e	23632.037	23632.033	0.005
282	10	20	e	23731.683	23731.673	0.009
283	11	20	f	23823.055	23823.033	0.022
284	11	20	e	23823.091	23823.068	0.023
285	12	20	f	23905.257	23905.235	0.022
286	12	20	e	23905.288	23905.269	0.018
287	13	20	f	23977.036	23977.038	-0.003
288	13	20	e	23977.062	23977.073	-0.011
289	14	20	f	24036.655	24036.653	0.002
290	14	20	e	24036.691	24036.688	0.004
291	15	20	f	24081.026	24080.980	0.046
292	15	20	e	24081.038	24081.015	0.023
293	2	21	f	22766.688	22766.709	-0.021
294	3	21	f	22906.882	22906.913	-0.032
295	4	21	f	23042.707	23042.727	-0.020
296	5	21	f	23173.678	23173.710	-0.033
297	6	21	f	23299.401	23299.423	-0.022
298	7	21	f	23419.367	23419.387	-0.020
299	8	21	f	23533.057	23533.067	-0.010
300	9	21	f	23639.892	23639.913	-0.021
301	10	21	f	23739.236	23739.254	-0.018
302	11	21	f	23830.306	23830.301	0.005
303	11	21	e	23830.357	23830.339	0.018
304	12	21	f	23912.095	23912.095	0.000
305	12	21	e	23912.151	23912.133	0.018
306	13	21	f	23983.396	23983.402	-0.006
307	13	21	e	23983.432	23983.440	-0.008
308	14	21	f	24042.386	24042.380	0.006
309	14	21	e	24042.427	24042.418	0.009
310	15	21	f	24085.716	24085.643	0.073
311	15	21	e	24085.752	24085.681	0.070
312	2	22	e	22776.307	22776.314	-0.007
313	3	22	e	22916.397	22916.414	-0.017
314	4	22	e	23052.072	23052.099	-0.027
315	5	22	e	23182.917	23182.928	-0.011
316	6	22	e	23308.457	23308.461	-0.004
317	7	22	e	23428.217	23428.218	-0.001
318	8	22	e	23541.662	23541.660	0.003
319	9	22	e	23648.227	23648.232	-0.005
320	10	22	e	23747.267	23747.257	0.010
321	11	22	f	23837.938	23837.896	0.042
322	11	22	e	23837.952	23837.938	0.014
323	12	22	f	23919.307	23919.260	0.047
324	12	22	e	23919.307	23919.302	0.005
325	13	22	f	23990.057	23990.039	0.018
326	13	22	e	23990.071	23990.081	-0.010
327	14	22	f	24048.368	24048.340	0.028
328	14	22	e	24048.382	24048.382	0.000
329	15	22	f	24090.547	24090.402	0.145
330	15	22	e	24090.528	24090.444	0.084
331	11	23	f	23845.838	23845.816	0.022
332	11	23	e	23845.887	23845.862	0.024

333	12	23	f	23926.758	23926.726	0.032
334	12	23	e	23926.776	23926.772	0.004
335	13	23	f	23996.938	23996.947	-0.009
336	13	23	e	23996.986	23996.993	-0.006
337	14	23	f	24054.538	24054.526	0.012
338	14	23	e	24054.576	24054.571	0.005
339	15	23	f	24095.387	24095.233	0.154
341	2	24	e	22796.717	22796.725	-0.008
342	3	24	e	22936.592	22936.599	-0.007
343	4	24	e	23072.007	23072.007	0.000
344	5	24	e	23202.509	23202.504	0.005
345	6	24	e	23327.642	23327.650	-0.008
346	7	24	e	23446.957	23446.961	-0.004
347	8	24	e	23559.892	23559.891	0.001
348	9	24	e	23665.892	23665.874	0.018
349	10	24	e	23764.242	23764.219	0.022
350	11	24	f	23854.085	23854.059	0.026
351	11	24	e	23854.123	23854.108	0.015
352	12	24	f	23934.505	23934.490	0.015
353	12	24	e	23934.547	23934.540	0.008
354	13	24	f	24004.126	24004.120	0.006
355	13	24	e	24004.143	24004.170	-0.026
356	14	24	f	24060.935	24060.929	0.005
357	14	24	e	24060.959	24060.979	-0.020
358	1	25	f	22663.695	22663.724	-0.029
359	2	25	f	22807.496	22807.512	-0.016
360	3	25	f	22947.242	22947.265	-0.024
361	4	25	f	23082.501	23082.525	-0.024
362	5	25	f	23212.822	23212.844	-0.022
363	6	25	f	23337.762	23337.782	-0.020
364	7	25	f	23456.826	23456.855	-0.028
365	8	25	f	23569.501	23569.510	-0.009
366	9	25	f	23675.167	23675.177	-0.009
367	10	25	f	23773.166	23773.157	0.010
368	11	25	f	23862.649	23862.620	0.030
369	11	25	e	23862.716	23862.673	0.043
370	12	25	f	23942.559	23942.548	0.012
371	12	25	e	23942.616	23942.601	0.015
372	13	25	f	24011.538	24011.553	-0.016
373	13	25	e	24011.575	24011.607	-0.032
374	14	25	f	24067.528	24067.543	-0.015
375	14	25	e	24067.556	24067.596	-0.041
376	2	26	e	22818.827	22818.829	-0.002
377	3	26	e	22958.451	22958.455	-0.003
378	4	26	e	23093.567	23093.560	0.007
379	5	26	e	23223.697	23223.693	0.004
380	6	26	e	23348.402	23348.414	-0.013
381	7	26	e	23467.222	23467.237	-0.015
382	8	26	e	23579.607	23579.605	0.002
383	9	26	e	23684.947	23684.941	0.005
384	10	26	e	23782.537	23782.538	-0.001
385	11	26	e	23871.589	23871.554	0.034
386	12	26	e	23950.970	23950.953	0.016
387	13	26	e	24019.278	24019.299	-0.021
388	14	26	e	24074.368	24074.414	-0.046
389	4	28	e	23116.769	23116.744	0.025
390	5	28	e	23246.490	23246.480	0.010

391	6	28	e	23370.750	23370.740	0.010
392	7	28	e	23489.010	23489.029	-0.020
393	8	28	e	23600.779	23600.785	-0.006
394	9	28	e	23705.410	23705.415	-0.005
395	10	28	e	23802.199	23802.193	0.006
396	11	28	e	23890.279	23890.251	0.029
397	12	28	e	23968.510	23968.509	0.000
398	13	28	e	24035.410	24035.425	-0.015
399	14	28	e	24088.539	24088.604	-0.065
400	2	29	e	22855.139	22855.136	0.003
401	3	29	e	22994.352	22994.347	0.006
402	4	29	f	23128.849	23128.873	-0.023
403	4	29	e	23128.948	23128.945	0.004
404	5	29	f	23258.389	23258.398	-0.010
405	5	29	e	23258.493	23258.470	0.023
406	6	29	f	23382.400	23382.412	-0.012
407	6	29	e	23382.478	23382.484	-0.005
408	7	29	f	23500.389	23500.417	-0.029
409	7	29	e	23500.478	23500.489	-0.011
410	8	29	f	23611.840	23611.848	-0.008
411	8	29	e	23611.888	23611.920	-0.032
412	9	29	f	23716.109	23716.101	0.008
413	9	29	e	23716.168	23716.173	-0.005
414	10	29	f	23812.439	23812.443	-0.003
415	10	29	e	23812.500	23812.514	-0.014
416	11	29	f	23900.019	23899.987	0.032
417	11	29	e	23900.051	23900.059	-0.008
418	12	29	f	23977.639	23977.633	0.005
419	12	29	e	23977.621	23977.705	-0.084
420	13	29	f	24043.769	24043.774	-0.005
421	14	29	f	24095.830	24095.877	-0.047
422	1	30	f	22724.715	22724.739	-0.025
423	2	30	f	22867.986	22867.996	-0.010
424	3	30	f	23007.027	23007.056	-0.029
425	4	30	f	23141.463	23141.471	-0.008
426	4	30	e	23141.539	23141.548	-0.009
427	5	30	f	23270.764	23270.777	-0.013
428	5	30	e	23270.879	23270.854	0.025
429	6	30	f	23394.514	23394.535	-0.022
430	6	30	e	23394.629	23394.612	0.017
431	7	30	f	23512.218	23512.245	-0.028
432	7	30	e	23512.320	23512.322	-0.002
433	8	30	f	23623.313	23623.336	-0.023
434	8	30	e	23623.420	23623.413	0.007
435	9	30	f	23727.179	23727.197	-0.019
436	9	30	e	23727.279	23727.274	0.005
437	10	30	f	23823.068	23823.083	-0.015
438	10	30	e	23823.160	23823.160	0.000
439	11	30	f	23910.102	23910.091	0.010
440	11	30	e	23910.209	23910.168	0.041
441	12	30	f	23987.061	23987.095	-0.034
442	12	30	e	23987.170	23987.172	-0.002
443	13	30	e	24052.469	24052.495	-0.026
444	14	30	e	24103.379	24103.435	-0.056
445	2	31	e	22881.428	22881.424	0.004
446	3	31	e	23020.328	23020.328	0.000
447	4	31	e	23154.548	23154.552	-0.004

448	5	31	e	23283.643	23283.630	0.014
449	6	31	e	23407.128	23407.122	0.006
450	7	31	e	23524.503	23524.525	-0.022
451	8	31	e	23635.243	23635.263	-0.020
452	9	31	e	23738.713	23738.716	-0.003
453	10	31	e	23834.111	23834.127	-0.015
454	11	31	e	23920.551	23920.575	-0.024
455	12	31	e	23996.762	23996.905	-0.143
456	1	32	e	22752.200	22752.179	0.021
457	2	32	e	22895.200	22895.189	0.011
458	3	32	e	23033.979	23033.930	0.049
459	4	32	e	23167.969	23167.956	0.013
460	5	32	e	23296.829	23296.797	0.032
461	6	32	e	23420.049	23420.013	0.037
462	7	32	e	23537.139	23537.096	0.043
463	8	32	e	23647.499	23647.468	0.031
464	9	32	e	23750.530	23750.496	0.034
465	1	33	f	22766.389	22766.393	-0.004
466	2	33	f	22909.270	22909.272	-0.002
467	3	33	f	23047.860	23047.845	0.015
468	4	33	f	23181.669	23181.664	0.004
469	5	33	f	23310.280	23310.259	0.021
470	6	33	f	23433.210	23433.189	0.021
471	7	33	f	23549.960	23549.941	0.019
472	8	33	f	23659.950	23659.931	0.019
473	9	33	f	23762.549	23762.517	0.033
474	10	33	f	23856.940	23856.917	0.023
475	1	34	e	22781.219	22781.208	0.012
476	2	34	e	22923.989	22923.950	0.039
477	3	34	e	23062.389	23062.347	0.042
478	4	34	e	23196.040	23195.953	0.086
479	5	34	e	23324.309	23324.293	0.016
480	6	34	e	23446.979	23446.925	0.054
481	7	34	e	23563.360	23563.333	0.027
482	8	34	e	23672.960	23672.928	0.032
483	9	34	e	23775.100	23775.054	0.046
484	2	35	e	22938.940	22938.944	-0.004
485	3	35	e	23077.210	23077.159	0.051
486	4	35	e	23210.588	23210.543	0.045
487	5	35	e	23338.649	23338.619	0.030
488	6	35	e	23460.969	23460.942	0.027
489	7	35	e	23577.008	23576.993	0.015
490	8	35	e	23686.190	23686.177	0.013
491	9	35	e	23787.860	23787.827	0.033
492	10	35	e	23881.149	23881.132	0.017
493	2	36	f	22954.239	22954.234	0.005
494	3	36	f	23092.280	23092.260	0.020
495	4	36	f	23225.430	23225.415	0.016
496	5	36	f	23353.229	23353.216	0.013
497	6	36	f	23475.210	23475.220	-0.010
498	7	36	f	23590.899	23590.901	-0.002
499	8	36	f	23699.659	23699.659	0.000
500	9	36	f	23800.829	23800.813	0.015
501	10	36	f	23893.569	23893.538	0.031
502	2	37	e	22970.159	22970.148	0.011
503	3	37	e	23108.030	23107.978	0.052
504	4	37	e	23240.940	23240.895	0.045

505	5	37	e	23368.450	23368.413	0.037
506	6	37	e	23490.110	23490.086	0.024
507	7	37	e	23605.399	23605.383	0.016
508	8	37	e	23713.710	23713.699	0.010
509	9	37	e	23814.370	23814.340	0.030
510	10	37	e	23906.489	23906.461	0.028
511	4	39	e	23272.797	23272.793	0.003
512	5	39	e	23399.765	23399.715	0.051
513	6	39	e	23520.707	23520.691	0.016
514	7	39	e	23635.197	23635.180	0.017
515	8	39	e	23742.566	23742.564	0.002
516	9	39	e	23842.127	23842.119	0.008
517	3	40	f	23157.015	23157.031	-0.016
518	4	40	f	23289.156	23289.182	-0.026
519	5	40	f	23415.777	23415.789	-0.012
520	6	40	f	23536.406	23536.399	0.007
521	7	40	f	23650.457	23650.463	-0.006
522	8	40	f	23757.355	23757.356	-0.001
523	9	40	f	23856.355	23856.337	0.019
524	5	41	e	23432.515	23432.504	0.011
525	6	41	e	23552.756	23552.735	0.021
526	7	41	e	23666.367	23666.359	0.008
527	8	41	e	23772.746	23772.743	0.002
528	9	41	e	23871.166	23871.129	0.037
529	4	44	e	23359.203	23359.186	0.017
530	5	44	e	23484.453	23484.431	0.022
531	6	44	e	23603.463	23603.447	0.016
532	7	44	e	23715.662	23715.660	0.002
533	8	44	e	23820.402	23820.408	-0.006
534	9	44	e	23916.873	23916.875	-0.002
535	10	44	e	24004.053	24004.047	0.006
536	11	44	e	24080.572	24080.577	-0.005
537	12	44	e	24144.283	24144.337	-0.054
538	3	45	f	23246.684	23246.722	-0.039
539	3	45	e	23246.906	23246.893	0.013
540	4	45	f	23377.363	23377.413	-0.049
541	4	45	e	23377.615	23377.583	0.031
542	5	45	f	23502.252	23502.289	-0.037
543	5	45	e	23502.496	23502.459	0.036
544	6	45	f	23620.844	23620.874	-0.030
545	6	45	e	23621.085	23621.044	0.041
546	7	45	f	23732.543	23732.583	-0.041
547	7	45	e	23732.765	23732.754	0.011
548	8	45	f	23836.732	23836.748	-0.016
549	8	45	e	23836.945	23836.919	0.026
550	9	45	f	23932.523	23932.528	-0.004
551	9	45	e	23932.714	23932.698	0.016
552	10	45	f	24018.902	24018.876	0.027
553	10	45	e	24019.076	24019.046	0.029
554	11	45	f	24094.412	24094.385	0.027
555	11	45	e	24094.554	24094.556	-0.002
556	12	45	f	24156.783	24156.757	0.026
557	3	46	f	23265.765	23265.800	-0.035
558	4	46	f	23396.146	23396.169	-0.023
559	4	46	e	23396.303	23396.348	-0.045
560	5	46	f	23520.656	23520.665	-0.009
561	5	46	e	23520.863	23520.843	0.020

562	6	46	f	23638.794	23638.804	-0.010
563	6	46	e	23638.993	23638.983	0.010
564	7	46	f	23749.986	23749.995	-0.009
565	7	46	e	23750.184	23750.173	0.010
566	8	46	f	23853.566	23853.556	0.010
567	8	46	e	23853.723	23853.734	-0.011
568	9	46	f	23948.646	23948.622	0.024
569	9	46	e	23948.793	23948.800	-0.008
570	10	46	f	24034.175	24034.113	0.062
571	10	46	e	24034.298	24034.291	0.007
572	11	46	f	24108.624	24108.553	0.072
573	11	46	e	24108.718	24108.731	-0.013
574	12	46	e	24169.577	24169.621	-0.044
575	3	47	e	23285.515	23285.439	0.076
576	4	47	e	23415.496	23415.476	0.020
577	5	47	e	23539.615	23539.579	0.036
578	6	47	f	23657.072	23657.072	0.000
579	6	47	e	23657.285	23657.258	0.026
580	7	47	f	23767.732	23767.727	0.006
581	7	47	e	23767.986	23767.913	0.073
582	8	47	f	23870.662	23870.662	0.000
583	8	47	e	23870.855	23870.848	0.007
584	9	47	f	23965.004	23964.989	0.015
585	9	47	e	23965.185	23965.175	0.010
586	10	47	f	24049.613	24049.587	0.026
587	11	47	f	24122.934	24122.904	0.029
588	12	47	f	24182.223	24182.203	0.020
589	6	48	e	23675.883	23675.868	0.015
590	7	48	e	23785.973	23785.968	0.004
591	8	48	e	23888.264	23888.257	0.007
592	9	48	e	23981.832	23981.817	0.015
593	10	48	e	24065.504	24065.486	0.018
594	11	48	e	24137.582	24137.622	-0.040
595	12	48	e	24195.143	24195.198	-0.055
596	3	55	e	23454.270	23454.277	-0.007
597	4	55	e	23581.260	23581.246	0.015
598	6	55	e	23815.161	23815.162	-0.001
599	7	55	e	23920.821	23920.840	-0.019
600	8	55	e	24017.882	24017.912	-0.030
601	9	55	e	24105.190	24105.212	-0.022
602	10	55	e	24181.061	24181.105	-0.044
603	11	55	e	24242.600	24242.707	-0.107
604	3	56	f	23476.661	23476.720	-0.059
605	4	56	f	23603.202	23603.249	-0.047
606	5	56	f	23723.171	23723.216	-0.046
607	6	56	f	23835.991	23836.038	-0.047
608	7	56	f	23940.991	23940.998	-0.007
609	8	56	f	24037.190	24037.213	-0.023
610	9	56	f	24123.481	24123.469	0.012
611	10	56	f	24198.042	24198.024	0.017
612	11	56	f	24257.612	24257.621	-0.009
613	3	57	e	23500.032	23500.035	-0.003
614	4	57	e	23626.100	23626.111	-0.011
615	5	57	e	23745.520	23745.545	-0.025
616	6	57	e	23857.712	23857.737	-0.025
617	7	57	e	23961.911	23961.955	-0.044
618	8	57	e	24057.231	24057.282	-0.051

619	9	57	e	24142.411	24142.449	-0.038
620	10	57	e	24215.520	24215.592	-0.072
621	11	57	e	24272.821	24272.970	-0.149

Table 3.

Parameters defining the IPA potential energy curve of the D¹Π state of NaLi.

Reduced mass for Na⁷Li 5.37550870 a.m.u.

Lambda doubling constant (see eq.(2) for the definition) q= 0.8252E-04 cm⁻¹

R _i , Å	U _i , cm ⁻¹
2.0	34823.8882
2.1	33119.5763
2.2	31371.8651
2.3	29719.2695
2.4	28348.6429
2.5	27167.4940
2.6	26176.3919
2.7	25347.6186
2.8	24655.4021
2.9	24111.3227
3.0	23650.2503
3.1	23266.4208
3.2	22965.2520
3.3	22729.4579
3.4	22552.3012
3.5	22426.0730
3.6	22346.0999
3.7	22306.4918
3.8	22302.8516
3.9	22333.1360
4.0	22395.1989
4.1	22483.6399
4.2	22590.8287
4.4	22834.8481
4.6	23084.1882
4.8	23311.9381
5.0	23505.3076
5.2	23661.1771
5.4	23781.7714
5.6	23872.6004
5.8	23938.3475
6.2	24018.6258
7.1	24065.9534
8.6	24068.1703
10.1	24065.9715
12.4	24062.9823
16.0	24061.1800

R _{out}	=	11.92928 Å
U _∞	=	24069.6 cm ⁻¹
C ₆	=	-2.538e+7 cm ⁻¹ Å ⁶
C ₈	=	1.902E+9 cm ⁻¹ Å ⁸
C ₁₀	=	1.566E+10 cm ⁻¹ Å ¹⁰

Table 4

The Dunham coefficients that describe the $D^1\Pi$ state of Na^7Li in the range of vibrational and rotational levels denoted by full circles in Figure 2 of the main publication. The number in parentheses that follows a quantity is the exponent of 10 that multiplies the quantity. The quoted error σ of a constant is one standard deviation. All numbers are in cm^{-1} .

constant	value	σ
T_e	22299.66	0.17
Y_{10}	148.867	0.127
Y_{20}	-0.46817	0.0354
Y_{30}	-0.21451	0.00447
Y_{40}	0.11278(-1)	0.263(-3)
Y_{50}	-0.35380(-3)	0.580(-5)
Y_{01}	0.221655	0.186(-3)
Y_{11}	0.792(-3)	0.150(-3)
Y_{21}	-0.87031(-3)	0.439(-4)
Y_{31}	0.95619(-4)	0.584(-5)
Y_{41}	-0.59496(-5)	0.3603(-6)
Y_{51}	0.10231(-6)	0.846(-8)
Y_{02}	-0.2399(-5)	0.34(-7)
Y_{12}	0.230(-6)	0.10(-7)
Y_{22}	-0.4056(-7)	0.74(-9)
Y_{03}	-0.622(-10)	0.47(-11)
q	0.94(-4)	0.5(-5)