Table A4 Transitions of ν_{4b} of ND_2H

	J'	K'_a	K'_c		J	K_a	K_c	$\tilde{\nu}_0^{\exp}/\mathrm{cm}^{-1}$	Δ	
s	0	0	0	s	1	0	1	1452.6953	−23	
s	1	0	1	s	0	0	0	1471.0355	8	
s	1	0	1	s	2	0	2	1444.3789	7	
s	1	1	0	s	1	1	1	1463.5292	−36	
s	1	1	0	s	2	1	1	1442.1298	−31	
s	1	1	1	s	1	1	0	1460.2442	−15	
s	1	1	1	s	2	1	2	1445.2601	−21	
s	1	1	1	s	2	1	2	1445.2601	−21	
s	2	0	2	s	1	0	1	1479.7166	17	
s	2	0	2	s	3	0	3	1436.9436	14	
s	2	1	1	s	3	1	2	1433.1272	123	*
s	2	1	1	s	1	1	0	1482.0945	120	*
s	2	1	1	s	3	1	2	1433.1272	123	*
s	2	1	2	s	3	1	3	1437.5438	308	*
s	2	1	2	s	1	1	1	1478.6690	309	*
s	2	1	2	s	2	1	1	1457.2691	308	*
s	2	2	0	s	3	2	1	1432.7496	−9	
s	2	2	0	s	2	2	1	1462.7296	−11	
s	2	2	1	s	2	2	0	1461.3921	−21	
s	2	2	1	s	3	2	2	1434.7413	−23	
s	3	0	3	s	2	0	2	1487.6056	−2	
s	3	0	3	s	4	0	4	1429.8394	10	
s	3	1	2	s	2	1	1	1491.9532	103	*
s	3	1	2	s	4	1	3	1425.0222	104	*
s	3	1	2	s	3	1	3	1472.2279	103	*
s	3	1	3	s	3	1	2	1452.5936	−2740	*
s	3	1	3	s	2	1	2	1486.5760	−2750	*
s	3	1	3	s	4	1	4	1429.7851	−2750	*
s	3	2	1	s	4	2	2	1423.3489	2790	*
s	3	2	1	s	3	2	2	1465.6637	2780	*
s	3	2	1	s	2	2	0	1492.3144	2780	*
s	3	2	2	s	2	2	1	1489.3991	−3020	*
s	3	2	2	s	3	2	1	1459.4191	−3020	*
s	3	2	2	s	4	2	3	1426.2603	−3020	*
s	3	3	0	a	3	3	0	1462.0927	−25	
s	3	3	0	s	3	3	1	1462.4176	−29	
s	3	3	0	s	4	3	1	1424.0751	−22	
s	3	3	1	s	3	3	0	1462.1126	16	
s	3	3	1	a	3	3	1	1462.0486	17	
s	3	3	1	s	4	3	2	1424.9667	15	
s	4	0	4	s	5	0	5	1422.7362	19	
s	4	0	4	s	3	0	3	1495.2213	19	
s	4	1	3	s	5	1	4	1417.8431	−76	
s	4	1	3	s	3	1	2	1501.0252	−77	
s	4	1	4	s	5	1	5	1422.7944	−16	
s	4	1	4	s	3	1	3	1494.8762	−15	
s	4	1	4	s	3	1	3	1494.8762	−15	
s	4	2	2	s	3	2	1	1503.2076	1250	*
s	4	2	2	s	4	2	3	1470.0490	1250	*
s	4	2	2	s	5	2	3	1414.3187	1250	*
s	4	2	3	s	4	2	2	1456.2087	−2280	*
s	4	2	3	s	3	2	2	1498.5236	−2280	*
s	4	2	3	s	5	2	4	1418.6116	−2280	*
s	4	3	1	s	4	3	2	1464.0197	1560	*
s	4	3	1	s	5	3	2	1414.1575	1560	*
s	4	3	2	s	5	3	3	1416.3584	−12	
s	4	3	2	s	3	3	1	1500.0497	−10	
s	4	3	2	a	5	3	2	1412.7632	−5	
s	4	3	2	a	4	3	2	1462.6249	−9	
s	4	3	2	s	4	3	1	1461.7066	−9	
s	4	4	0	s	5	4	1	1415.3828	14	
s	4	4	0	s	4	4	1	1462.5368	14	
s	4	4	1	s	4	4	0	1462.4623	8	
s	4	4	1	s	5	4	2	1415.6650	8	
s	5	0	5	s	6	0	6	1415.6225	19	
s	5	0	5	s	4	0	4	1502.9156	19	
s	5	1	4	s	6	1	5	1411.0784	−150	*
s	5	1	4	s	4	1	3	1509.1330	−134	*
s	5	1	5	s	4	1	4	1502.7973	56	
s	5	1	5	s	6	1	6	1415.6390	58	
s	5	2	3	s	5	2	4	1476.0433	297	*
s	5	2	3	s	4	2	2	1513.6403	297	*
s	5	2	3	s	6	2	4	1406.3808	298	*
s	5	2	4	s	4	2	3	1507.4426	−477	*
s	5	2	4	s	6	2	5	1411.4540	−477	*
s	5	3	2	s	4	3	1	1512.7381	−2630	*
s	5	3	2	s	5	3	3	1467.3901	−2630	*
s	5	3	2	s	6	3	3	1404.5464	−2630	*
s	5	3	3	s	6	3	4	1408.2198	−391	*
s	5	3	3	s	5	3	2	1459.9764	−388	*
s	5	3	3	s	4	3	2	1509.8382	−390	*
s	5	4	1	s	6	4	2	1406.1240	4370	*
s	5	4	1	s	4	4	0	1510.6066	4360	*
s	5	4	1	s	5	4	2	1463.8101	4370	*
s	5	5	0	s	6	5	1	1406.5511	−248	*
s	5	5	0	s	5	5	1	1462.7926	−248	*
s	5	5	1	s	6	5	2	1406.6017	−240	*
s	5	5	1	s	5	5	0	1462.7786	−236	*
s	6	0	6	s	7	0	7	1408.5233	13	
s	6	0	6	s	5	0	5	1510.6953	−14	
s	6	1	5	s	7	1	6	1404.3051	−35	
s	6	1	5	s	5	1	4	1516.7927	−37	
s	6	1	6	s	6	1	5	1437.4824	17	
s	6	1	6	s	7	1	7	1408.5233	2	
s	6	1	6	s	5	1	5	1510.6593	15	
s	6	2	4	s	6	2	5	1482.8317	−712	*
s	6	2	4	s	5	2	3	1523.0880	−728	*
s	6	2	4	s	7	2	5	1399.4274	−711	*
s	6	2	5	s	6	2	4	1446.2911	235	*
s	6	2	5	s	7	2	6	1404.4434	234	*
s	6	2	5	s	5	2	4	1515.9535	233	*
s	6	3	3	s	6	3	4	1473.1176	743	*
s	6	3	3	s	5	3	2	1524.8792	795	*
s	6	3	4	s	5	3	3	1519.4097	−590	*
s	6	3	4	s	7	3	5	1400.6263	−590	*
s	6	3	4	s	6	3	3	1456.5658	−589	*
s	6	4	2	s	6	4	3	1465.2527	−685	*
s	6	4	2	s	5	4	1	1521.2499	−698	*
s	6	4	3	s	5	4	2	1520.1637	3	
s	6	4	3	s	6	4	2	1462.4729	−42	
s	6	4	3	s	7	4	4	1398.2235	−22	
s	6	5	2	a	7	5	2	1396.8861	421	*
s	6	5	2	a	6	5	2	1463.0922	449	*
s	6	6	0	s	6	6	1	1463.3018	577	*
s	6	6	0	s	7	6	1	1397.8268	598	*
s	6	6	1	s	7	6	2	1397.8369	582	*
s	6	6	1	s	6	6	0	1463.3018	594	*
s	7	0	7	s	8	0	8	1401.4370	−39	
s	7	0	7	s	6	0	6	1518.5108	−46	
s	7	1	6	s	6	1	5	1524.4918	−303	*
s	7	1	6	s	8	1	7	1397.4383	−278	*
s	7	1	7	s	7	1	6	1432.7962	−30	
s	7	1	7	s	8	1	8	1401.4370	−33	
s	7	2	5	s	8	2	6	1392.9722	−1290	*
s	7	2	5	s	7	2	6	1489.5499	−1290	*
s	7	2	5	s	6	2	4	1531.3970	−1290	*
s	7	3	4	s	6	3	3	1536.0822	−1	
s	7	3	4	s	8	3	5	1388.5882	1	
s	7	3	4	s	7	3	5	1480.1424	−5	
s	7	3	5	s	6	3	4	1528.6942	−256	*

Table A4(continued): Transitions of ν_{4b} of ND_2H

	J'	K'_a	K'_c		J	K_a	K_c	$\tilde{\nu}_0^{\rm exp}/{\rm cm}^{-1}$	Δ	
s	7	3	5	s	7	3	4	1451.7440	−252	*
s	7	3	5	s	8	3	6	1393.5427	−252	*
s	7	4	3	s	6	4	2	1533.6928	4650	*
s	7	4	3	s	8	4	4	1386.4495	4660	*
s	7	5	2	s	6	5	1	1530.0244	−692	*
s	7	5	2	s	8	5	3	1387.3177	−688	*
s	7	7	0	s	8	7	1	1389.0855	31	
s	7	7	0	s	7	7	1	1463.8101	9	
s	7	7	1	s	8	7	2	1389.0855	10	
s	7	7	1	s	7	7	0	1463.8101	12	
s	8	0	8	s	9	0	9	1394.3702	16	
s	8	0	8	s	7	0	7	1526.3335	−10	
s	8	1	7	s	7	1	6	1532.4147	4	
s	8	1	7	s	9	1	8	1390.6247	15	
s	8	1	8	s	7	1	7	1526.3335	25	
s	8	1	8	s	9	1	9	1394.3702	22	
s	8	2	6	s	9	2	7	1386.5299	−1600	*
s	8	2	6	s	7	2	5	1539.0846	−1610	*
s	8	2	7	s	9	2	8	1390.6357	188	*
s	8	2	7	s	7	2	6	1532.2988	188	*
s	8	3	5	s	7	3	4	1545.8505	−4000	*
s	8	3	5	s	9	3	6	1381.7492	−4000	*
s	8	3	6	s	9	3	7	1386.7485	−345	*
s	8	3	6	s	7	3	5	1537.5994	−335	*
s	8	4	5	s	7	4	4	1540.7860	6	
s	8	4	5	s	9	4	6	1383.1681	7	
s	8	4	5	s	8	4	4	1457.7931	5	
s	8	5	3	s	8	5	4	1466.7187	20	
s	8	5	3	s	7	5	2	1541.6905	−4	
s	8	8	0	s	9	8	1	1380.6056	8	
s	8	8	0	s	8	8	1	1464.5748	−26	
s	8	8	1	s	9	8	2	1380.6056	5	
s	8	8	1	s	8	8	0	1464.5748	−26	
a	0	0	0	a	1	0	1	1452.7409	170	*
a	1	0	1	a	0	0	0	1471.1562	−33	
a	1	0	1	a	2	0	2	1444.5010	−22	
a	1	1	0	a	2	1	1	1442.2422	−410	*
a	1	1	0	a	1	1	1	1463.6396	−420	*
a	1	1	1	a	1	1	0	1460.2665	602	*
a	1	1	1	a	2	1	2	1445.2814	597	*
a	2	0	2	a	3	0	3	1437.1459	692	*
a	2	0	2	a	1	0	1	1479.9186	694	*
a	2	1	1	a	1	1	0	1482.4934	−1380	*
a	2	1	1	a	3	1	2	1433.5281	−1380	*
a	2	1	1	a	2	1	2	1467.5081	−1390	*
a	2	1	2	a	1	1	1	1478.8903	2280	*
a	2	1	2	a	1	1	1	1478.8903	2280	*
a	2	1	2	a	3	1	3	1437.7640	2280	*
a	2	2	0	a	3	2	1	1432.9002	−718	*
a	2	2	0	a	2	2	1	1462.8800	−721	*
a	2	2	1	a	3	2	2	1434.8141	23	
a	2	2	1	a	2	2	0	1461.4649	23	
a	3	0	3	a	2	0	2	1487.8978	2520	*
a	3	0	3	a	4	0	4	1430.1295	2510	*
a	3	1	2	a	3	1	3	1472.9396	−1630	*
a	3	1	2	a	2	1	1	1492.6675	−1630	*
a	3	1	2	a	4	1	3	1425.7395	−1630	*
a	3	1	3	a	4	1	4	1430.8109	7260	*
a	3	1	3	a	2	1	2	1487.6056	7280	*
a	3	1	3	a	3	1	2	1453.6232	7270	*
a	3	2	1	a	4	2	2	1424.3833	2770	*
a	3	2	1	a	2	2	0	1493.3478	2770	*
a	3	2	1	a	3	2	2	1466.6966	2760	*
a	3	2	2	a	2	2	1	1489.3991	−9330	*
a	3	2	2	a	4	2	3	1426.2603	−9340	*

	J'	K'_a	K'_c		J	K_a	K_c	$\tilde{\nu}_0^{\rm exp}/{\rm cm}^{-1}$	Δ	
a	3	2	2	a	3	2	1	1459.4191	−9330	*
a	3	3	0	s	3	3	0	1462.6249	−545	*
a	3	3	0	a	3	3	1	1462.5608	−546	*
a	3	3	0	a	4	3	1	1424.2636	−543	*
a	3	3	1	a	3	3	0	1462.2196	−229	*
a	3	3	1	a	4	3	2	1425.1201	−228	*
a	4	0	4	a	5	0	5	1423.5612	8570	*
a	4	0	4	a	3	0	3	1496.0482	8570	*
a	4	1	3	a	3	1	2	1502.0181	−1060	*
a	4	1	3	a	5	1	4	1418.8400	−1060	*
a	4	1	3	a	4	1	4	1479.2066	−1060	*
a	4	1	4	a	5	1	5	1422.7944	34	
a	4	1	4	a	3	1	3	1494.8762	11	
a	4	2	2	a	4	2	3	1471.5913	37	
a	4	2	2	a	5	2	3	1415.8641	41	
a	4	2	2	a	3	2	1	1504.7498	40	
a	4	3	1	a	4	3	2	1465.6945	168	*
a	4	3	1	a	3	3	0	1502.7973	200	*
a	4	4	0	a	5	4	1	1415.5698	−18	
a	4	4	0	a	4	4	1	1462.6978	−24	
a	4	4	1	a	5	4	2	1415.8409	14	
a	4	4	1	a	4	4	0	1462.6123	14	
a	5	0	5	a	4	0	4	1502.9156	194	*
a	5	0	5	a	6	0	6	1415.6225	225	*
a	5	1	4	a	4	1	3	1510.5496	−31	
a	5	1	4	a	6	1	5	1412.4999	−34	
a	5	1	5	a	6	1	6	1415.6390	11	
a	5	1	5	a	5	1	4	1442.4216	−117	*
a	5	1	5	a	4	1	4	1502.7973	−24	
a	5	2	3	a	4	2	2	1515.5918	−41	
a	5	2	3	a	6	2	4	1408.3369	−47	
a	5	2	3	a	5	2	4	1477.9930	−53	
a	5	3	2	a	5	3	3	1469.4432	−6340	*
a	5	3	2	a	6	3	3	1406.6017	−6320	*
a	5	4	1	a	6	4	2	1407.6404	−8370	*
a	5	4	1	a	5	4	2	1465.3331	−8340	*
a	5	4	2	a	6	4	3	1408.8147	−6780	*
a	5	4	2	a	4	4	1	1511.9487	−6740	*
a	5	4	2	s	5	4	2	1465.9036	−446	*
a	5	4	2	s	6	4	2	1408.2198	−424	*
a	5	5	1	a	6	5	2	1406.7641	1450	*
a	5	5	1	a	5	5	0	1462.9481	1450	*
a	6	1	6	a	7	1	7	1408.5233	−1230	*
a	6	1	6	a	5	1	5	1510.6593	−1260	*
a	6	2	4	a	7	2	5	1401.7632	22	
a	6	2	4	a	5	2	3	1525.4186	25	
a	6	2	4	a	6	2	5	1485.1582	23	
a	6	3	4	a	5	3	3	1523.0880	20	
a	6	3	4	a	6	3	3	1460.2442	17	
a	6	3	4	a	7	3	5	1404.3051	2	
a	6	4	3	a	5	4	2	1525.2199	−15	
a	6	4	3	a	6	4	2	1467.5313	4	
a	6	6	0	a	6	6	1	1462.7926	78	
a	6	6	0	a	7	6	1	1397.3127	44	
a	6	6	1	a	7	6	2	1397.3127	−76	
a	6	6	1	a	6	6	0	1462.7786	−47	
a	7	1	7	a	6	1	6	1519.4097	4870	*
a	7	1	7	a	8	1	8	1402.3381	4840	*
a	8	4	5	a	8	4	4	1464.4804	10	
a	8	4	5	a	9	4	6	1389.8562	−24	
a	8	8	0	a	9	8	1	1377.7311	−19	
a	8	8	0	a	8	8	1	1461.7066	22	
a	8	8	1	a	9	8	2	1377.7311	−24	
a	8	8	1	a	8	8	0	1461.7066	22	