

Vibrational Analysis, NNKDI TCTT Conformer, CCSD/6-31G*

NORMAL COORDINATE ANALYSIS IN THE HARMONIC APPROXIMATION

ATOMIC WEIGHTS (AMU)

1	N	14.00307
2	C	12.00000
3	C	12.00000
4	C	12.00000
5	C	12.00000
6	C	12.00000
7	C	12.00000
8	C	12.00000
9	C	12.00000
10	O	15.99491
11	C	12.00000
12	N	14.00307
13	N	14.00307
14	H	1.00782
15	H	1.00782
16	H	1.00782
17	H	1.00782
18	H	1.00782
19	H	1.00782
20	H	1.00782
21	H	1.00782
22	H	1.00782
23	H	1.00782

MODES 1 TO 6 ARE TAKEN AS ROTATIONS AND TRANSLATIONS.

ANALYZING SYMMETRY OF NORMAL MODES...

--- SYMMETRY FOR NORMAL MODES ---

INCLUDING TRANSLATION AND ROTATION

43*A' 26*A''

EXCLUDING TRANSLATION AND ROTATION (SAYVETZ < 0.01)

32*A' 11*A''

FREQUENCIES IN CM**-1, IR INTENSITIES IN DEBYE**2/AMU-ANGSTROM**2,
REDUCED MASSES IN AMU.

			1	2	3	4	5
	FREQUENCY:		21.10	15.52	10.80	10.31	10.10
	SYMMETRY:		A''	A'	A''	A'	A''
	REDUCED MASS:		4.87169	7.93016	7.26470	7.43857	6.61369
1	N	X	0.00000000	0.04292050	-0.00000000	-0.02909884	-0.00000000
		Y	0.00000000	0.01710785	0.00000000	0.10538180	0.00000000
		Z	-0.04625219	0.00000000	0.00285359	-0.00000000	0.15178819
2	C	X	0.00000000	0.04750707	-0.00000000	-0.02377143	-0.00000000
		Y	-0.00000000	0.00182409	0.00000000	0.08757116	0.00000000
		Z	-0.03608648	0.00000000	0.03014416	-0.00000000	0.11854594
3	C	X	0.00000000	0.06341598	-0.00000000	-0.00518128	-0.00000000
		Y	-0.00000000	-0.00310388	0.00000000	0.08182804	0.00000000
		Z	0.05100219	0.00000000	0.03153450	-0.00000000	0.06170792
4	C	X	0.00000000	0.07532896	-0.00000000	0.00870174	0.00000000

		Y	-0.00000000	0.00861716	0.00000000	0.09548053	0.00000000
		Z	0.13205217	-0.00000000	0.00298614	-0.00000000	0.03833582
5	C	X	0.00000000	0.07076083	-0.00000000	0.00335812	0.00000000
		Y	0.00000000	0.02452515	0.00000000	0.11402430	0.00000000
		Z	0.12206221	-0.00000000	-0.02579190	-0.00000000	0.07221852
6	C	X	0.00000000	0.05447997	-0.00000000	-0.01562242	-0.00000000
		Y	0.00000000	0.02813689	0.00000000	0.11823668	0.00000000
		Z	0.03214245	-0.00000000	-0.02471704	-0.00000000	0.12839668
7	C	X	0.00000000	0.06813888	-0.00000000	0.00040137	-0.00000000
		Y	-0.00000000	-0.01986249	0.00000000	0.06201239	0.00000000
		Z	0.06161985	0.00000000	0.06089478	-0.00000000	0.02546278
8	C	X	0.00000000	0.05568174	-0.00000000	-0.01466614	-0.00000000
		Y	-0.00000000	-0.03228877	0.00000000	0.04710257	0.00000000
		Z	-0.01691913	0.00000000	0.08088528	-0.00000000	0.05162058
9	C	X	0.00000000	0.06327214	-0.00000000	-0.00546862	-0.00000000
		Y	-0.00000000	-0.04794408	0.00000000	0.02798864	0.00000000
		Z	0.01787762	0.00000000	0.09660031	-0.00000000	0.00105967
10	O	X	0.00000000	0.08163455	0.00000000	0.01661725	0.00000000
		Y	-0.00000000	-0.02387803	0.00000000	0.05717802	0.00000000
		Z	0.13152125	-0.00000000	0.06799698	0.00000000	-0.02417498
11	C	X	0.00000000	0.05138313	-0.00000000	-0.02053364	-0.00000000
		Y	-0.00000000	-0.05959966	0.00000000	0.01329220	0.00000000
		Z	-0.06013502	0.00000000	0.11198287	-0.00000000	0.03366580
12	N	X	0.00000000	0.05841634	-0.00000000	-0.01160522	-0.00000000
		Y	-0.00000000	-0.07424159	0.00000000	-0.00519767	-0.00000000
		Z	-0.02483880	0.00000000	0.12157788	-0.00000000	-0.01553790
13	N	X	0.00000000	0.06412528	-0.00000000	-0.00468132	-0.00000000
		Y	-0.00000000	-0.08493997	0.00000000	-0.01817300	-0.00000000
		Z	0.00391803	0.00000000	0.12761832	0.00000000	-0.05292136
14	H	X	0.00000000	0.03777333	-0.00000000	-0.03514018	-0.00000000
		Y	-0.00000000	-0.00674142	0.00000000	0.07758207	0.00000000
		Z	-0.10208920	0.00000000	0.05223756	-0.00000000	0.13927434
15	H	X	0.00000000	0.08783507	0.00000000	0.02322745	0.00000000
		Y	-0.00000000	0.00507051	0.00000000	0.09137017	0.00000000
		Z	0.20126447	-0.00000000	0.00344072	0.00000000	-0.00561447
16	H	X	0.00000000	0.07956991	-0.00000000	0.01360739	0.00000000
		Y	0.00000000	0.03404010	0.00000000	0.12514101	0.00000000
		Z	0.18310472	-0.00000000	-0.04905421	-0.00000000	0.05588208
17	H	X	0.00000000	0.05046259	-0.00000000	-0.02028568	-0.00000000
		Y	0.00000000	0.04055223	0.00000000	0.13263549	0.00000000
		Z	0.02269645	-0.00000000	-0.04713683	-0.00000000	0.15616994
18	H	X	-0.00576047	0.04836588	0.01216932	-0.02355762	-0.01466681
		Y	0.05810786	-0.03078791	-0.00412061	0.04896986	-0.03639843
		Z	-0.05820531	0.00000652	0.08207151	-0.00000513	0.08027210
19	H	X	0.00576047	0.04836588	-0.01216932	-0.02355762	0.01466681
		Y	-0.05810786	-0.03078791	0.00412061	0.04896986	0.03639843
		Z	-0.05820531	-0.00000652	0.08207151	0.00000513	0.08027210
20	H	X	0.00555965	0.07041803	-0.01073222	0.00332377	0.01324951
		Y	-0.05785377	-0.04909333	0.00217621	0.02651412	0.03932793
		Z	0.05893006	-0.00004156	0.09630492	0.00000680	-0.02891766
21	H	X	-0.00555965	0.07041803	0.01073222	0.00332377	-0.01324951
		Y	0.05785377	-0.04909333	-0.00217621	0.02651412	-0.03932793
		Z	0.05893006	0.00004156	0.09630492	-0.00000680	-0.02891766
22	H	X	-0.00518229	0.04484053	0.00855069	-0.02902645	-0.01327190
		Y	0.05935931	-0.05987424	-0.00418721	0.01297014	-0.04013985
		Z	-0.10133124	0.00000633	0.11511119	-0.00000934	0.06105926
23	H	X	0.00518229	0.04484053	-0.00855069	-0.02902645	0.01327190
		Y	-0.05935931	-0.05987424	0.00418721	0.01297014	0.04013985
		Z	-0.10133124	-0.00000633	0.11511119	0.00000934	0.06105926

TRANS. SAYVETZ	X	0.00000000	10.80978999	-0.00000000	-1.36115886	-0.00000000
	Y	-0.00000000	-3.77594810	0.00000000	10.44176332	0.00000000
	Z	4.91100860	0.00000000	9.54204418	-0.00000000	7.72735245
	TOTAL	4.91100860	11.45029885	9.54204418	10.53010801	7.72735245

ROT. SAYVETZ	X	21.28837828	-0.00000000	-0.48091910	0.00000000	-12.68252441
	Y	27.71764412	-0.00000000	-54.30170717	-0.00000000	50.66625671
	Z	-0.00000000	-42.14297816	-0.00000000	-50.75369828	-0.00000000
	TOTAL	34.94943269	42.14297816	54.30383674	50.75369828	52.22945524

		6	7	8	9	10
FREQUENCY:		1.26	28.22	45.98	67.40	78.69
SYMMETRY:		A'	A''	A''	A'	A''
REDUCED MASS:		7.53492	6.94393	3.25041	7.35988	2.70389

1	N	X	0.06521521	-0.00000000	0.00000000	-0.05495176	0.00000000
		Y	-0.00552890	-0.00000000	-0.00000000	0.03203789	-0.00000000
		Z	0.00000000	0.00079933	-0.08720939	0.00000000	-0.01835634
2	C	X	0.05967001	-0.00000000	0.00000000	-0.04068739	0.00000000
		Y	0.01297166	-0.00000000	-0.00000000	-0.01408234	0.00000000
		Z	0.00000000	-0.04951613	-0.07747277	0.00000000	-0.01833034
3	C	X	0.04041466	0.00000000	-0.00000000	0.00475850	-0.00000000
		Y	0.01892920	-0.00000000	-0.00000000	-0.02866701	0.00000000
		Z	0.00000000	-0.02914742	-0.00509942	0.00000000	-0.00291499
4	C	X	0.02603174	0.00000000	-0.00000000	0.03959341	-0.00000000
		Y	0.00476882	-0.00000000	-0.00000000	0.00602603	-0.00000000
		Z	0.00000000	0.04477899	0.06157145	0.00000000	0.01106940
5	C	X	0.03156024	0.00000000	-0.00000000	0.02639736	-0.00000000
		Y	-0.01447949	-0.00000000	-0.00000000	0.05397647	-0.00000000
		Z	0.00000000	0.09987122	0.05801834	0.00000000	0.01747326
6	C	X	0.05125406	0.00000000	0.00000000	-0.02101683	0.00000000
		Y	-0.01884040	-0.00000000	-0.00000000	0.06448261	-0.00000000
		Z	0.00000000	0.07633171	-0.01865144	0.00000000	0.00191885
7	C	X	0.03464637	0.00000000	-0.00000000	0.01477601	-0.00000000
		Y	0.03940509	-0.00000000	-0.00000000	-0.06729165	0.00000000
		Z	-0.00000000	-0.07569957	-0.00511714	0.00000000	-0.01600835
8	C	X	0.04999816	0.00000000	-0.00000000	0.00347651	-0.00000000
		Y	0.05467235	-0.00000000	0.00000000	-0.08068000	0.00000000
		Z	-0.00000000	-0.06477637	0.06219901	0.00000000	0.08366160
9	C	X	0.04076381	0.00000000	-0.00000000	-0.00271604	-0.00000000
		Y	0.07383162	-0.00000000	0.00000000	-0.06719919	0.00000000
		Z	-0.00000000	-0.03187225	0.00166579	0.00000000	0.17052550
10	O	X	0.01799308	0.00000000	-0.00000000	0.03656692	-0.00000000
		Y	0.04436097	-0.00000000	0.00000000	-0.07324936	0.00000000
		Z	-0.00000000	-0.11018262	-0.04509644	-0.00000000	-0.10484353
11	C	X	0.05521032	0.00000000	0.00000000	0.03898468	-0.00000000
		Y	0.08796871	-0.00000000	0.00000000	-0.02604400	0.00000000
		Z	-0.00000000	0.00982796	0.13651604	-0.00000000	-0.05164600
12	N	X	0.04696074	0.00000000	-0.00000000	-0.00124611	-0.00000000
		Y	0.10528863	-0.00000000	0.00000000	0.06076873	0.00000000
		Z	-0.00000000	0.07974881	0.00195606	-0.00000000	-0.03422110
13	N	X	0.04068735	0.00000000	-0.00000000	-0.04917368	0.00000000
		Y	0.11704859	-0.00000000	0.00000000	0.15075015	-0.00000000
		Z	-0.00000000	0.13501845	-0.11237867	-0.00000000	-0.02091851
14	H	X	0.07146130	-0.00000000	0.00000000	-0.06785546	0.00000000
		Y	0.02335108	-0.00000000	-0.00000000	-0.03847050	0.00000000
		Z	0.00000000	-0.11246979	-0.13413969	0.00000000	-0.03641480
15	H	X	0.01101065	0.00000000	-0.00000000	0.07695366	-0.00000000
		Y	0.00902562	-0.00000000	-0.00000000	-0.00472679	-0.00000000
		Z	0.00000000	0.06001938	0.11583304	0.00000000	0.01812363

16	H	X	0.02091055	0.00000000	-0.00000000	0.05252398	-0.00000000
		Y	-0.02599204	-0.00000000	-0.00000000	0.08221557	-0.00000000
		Z	0.00000000	0.16085446	0.11192449	0.00000000	0.03237313
17	H	X	0.05608044	-0.00000000	0.00000000	-0.03271266	0.00000000
		Y	-0.03369517	-0.00000000	-0.00000000	0.10053264	-0.00000000
		Z	0.00000000	0.11988618	-0.02517393	0.00000000	0.00518250
18	H	X	0.05900876	0.01700407	-0.00161746	0.00282760	0.05789286
		Y	0.05276340	0.00718526	-0.06499572	-0.07971112	-0.00596761
		Z	0.00001167	-0.07275848	0.11022975	-0.00051751	0.07771362
19	H	X	0.05900876	-0.01700407	0.00161746	0.00282760	-0.05789286
		Y	0.05276340	-0.00718526	0.06499572	-0.07971112	0.00596761
		Z	-0.00001167	-0.07275848	0.11022975	0.00051751	0.07771362
20	H	X	0.03211777	-0.02658928	-0.00732507	-0.01739658	0.02744908
		Y	0.07526477	0.00620509	0.10194309	-0.06277523	-0.15250806
		Z	0.00000804	-0.03292872	-0.07142040	-0.00146610	0.27807964
21	H	X	0.03211777	0.02658928	0.00732507	-0.01739658	-0.02744908
		Y	0.07526477	-0.00620509	-0.10194309	-0.06277523	0.15250806
		Z	-0.00000804	-0.03292872	-0.07142040	0.00146610	0.27807964
22	H	X	0.06316593	0.04208187	-0.02202800	0.07321754	-0.05391685
		Y	0.08829191	0.00526291	-0.13365176	-0.02369158	0.14289846
		Z	-0.00000429	0.00738967	0.22825108	-0.00056044	-0.15199326
23	H	X	0.06316593	-0.04208187	0.02202800	0.07321754	0.05391685
		Y	0.08829191	-0.00526291	0.13365176	-0.02369158	-0.14289846
		Z	0.00000429	0.00738967	0.22825108	0.00056044	-0.15199326

TRANS. SAYVETZ	X	7.57465610	0.00000000	-0.00000000	0.01950452	-0.00000000
	Y	7.26476380	-0.00000000	-0.00000000	0.13086282	0.00000000
	Z	0.00000000	1.04575402	-0.31793010	0.00000000	0.07306011
TOTAL		10.49534220	1.04575402	0.31793010	0.13230836	0.07306011

ROT. SAYVETZ	X	-0.00000000	-1.83790256	0.00234611	-0.00000000	-0.41987891
	Y	0.00000000	-9.38374937	-0.83230141	0.00000000	0.73774840
	Z	51.01799459	-0.00000000	0.00000000	1.48113995	0.00000000
TOTAL		51.01799459	9.56204152	0.83230472	1.48113995	0.84886454

	11	12	13	14	15
FREQUENCY:	116.25	143.98	165.56	258.92	279.57
SYMMETRY:	A''	A'	A''	A'	A'
REDUCED MASS:	2.75119	7.91619	3.54157	5.14214	6.73098

1	N	X	-0.00000000	-0.08121820	0.00000000	-0.00884574	0.05196229
		Y	-0.00000000	0.00924974	0.00000000	-0.00269049	0.00042787
		Z	-0.03711792	-0.00000000	-0.01748951	-0.00000000	-0.00000000
2	C	X	0.00000000	-0.06571465	0.00000000	0.01015639	0.03891274
		Y	-0.00000000	-0.03465876	0.00000000	-0.06478215	0.02698630
		Z	0.02652939	0.00000000	0.10233979	-0.00000000	-0.00000000
3	C	X	0.00000000	-0.02323243	-0.00000000	0.04396371	0.00677281
		Y	-0.00000000	-0.04751160	0.00000000	-0.07486569	0.03184931
		Z	0.06131943	0.00000000	0.12107920	-0.00000000	0.00000000
4	C	X	0.00000000	0.00342265	-0.00000000	0.09643001	0.00695908
		Y	-0.00000000	-0.01937352	0.00000000	-0.03454208	0.02887289
		Z	0.05305881	0.00000000	0.09581960	-0.00000000	0.00000000
5	C	X	0.00000000	-0.00906978	-0.00000000	0.08570921	0.01623664
		Y	-0.00000000	0.02703366	0.00000000	0.02983518	-0.00100266
		Z	-0.00340591	0.00000000	-0.01534927	0.00000000	0.00000000
6	C	X	0.00000000	-0.05243302	0.00000000	0.03533567	0.04294124
		Y	-0.00000000	0.03715707	0.00000000	0.04222106	-0.00910211
		Z	-0.05868812	-0.00000000	-0.10398486	0.00000000	-0.00000000
7	C	X	0.00000000	-0.01811176	-0.00000000	0.01271413	0.00193858
		Y	-0.00000000	-0.04616095	0.00000000	-0.02953795	-0.03289471

		Z	0.03902036	0.00000000	0.00629869	0.00000000	0.00000000
8	C	X	-0.00000000	0.02382078	-0.00000000	0.03620514	-0.05551304
		Y	-0.00000000	-0.00803480	0.00000000	0.03610334	-0.07473525
		Z	0.12315322	0.00000000	-0.09938573	-0.00000000	0.00000000
9	C	X	-0.00000000	0.00670393	-0.00000000	-0.00939087	-0.10171551
		Y	-0.00000000	0.05105697	0.00000000	0.09579874	-0.00318342
		Z	-0.09635346	-0.00000000	0.01115946	0.00000000	-0.00000000
10	O	X	0.00000000	-0.04532194	-0.00000000	-0.04136907	0.08570588
		Y	-0.00000000	-0.03783780	0.00000000	-0.01221218	-0.05732564
		Z	-0.05574182	-0.00000000	-0.07597695	0.00000000	-0.00000000
11	C	X	-0.00000000	0.04114613	-0.00000000	-0.07369696	-0.05172903
		Y	-0.00000000	0.08431100	-0.00000000	0.04973356	0.07412484
		Z	-0.08911136	-0.00000000	0.02886666	0.00000000	0.00000000
12	N	X	-0.00000000	0.06769999	-0.00000000	-0.07368367	-0.06871774
		Y	-0.00000000	0.05404366	0.00000000	-0.03195973	0.10109420
		Z	-0.01906627	-0.00000000	0.01379503	0.00000000	0.00000000
13	N	X	-0.00000000	0.13827247	-0.00000000	-0.08244199	0.02440319
		Y	0.00000000	-0.07735434	0.00000000	-0.01904486	-0.07494164
		Z	0.07530286	-0.00000000	-0.01816001	-0.00000000	-0.00000000
14	H	X	-0.00000000	-0.08945386	0.00000000	-0.01915632	0.05709834
		Y	-0.00000000	-0.05713830	0.00000000	-0.09214625	0.04477246
		Z	0.04508007	0.00000000	0.16132328	-0.00000000	-0.00000000
15	H	X	0.00000000	0.03611576	-0.00000000	0.15515978	-0.00354427
		Y	-0.00000000	-0.02905882	0.00000000	-0.05247315	0.03227983
		Z	0.08065606	0.00000000	0.12536010	0.00000000	0.00000000
16	H	X	0.00000000	0.01644833	-0.00000000	0.11635730	-0.00278534
		Y	-0.00000000	0.05466956	0.00000000	0.06253328	-0.02171949
		Z	-0.01426959	0.00000000	-0.05943948	0.00000000	-0.00000000
17	H	X	0.00000000	-0.06262498	0.00000000	0.02119965	0.04736274
		Y	-0.00000000	0.06845281	-0.00000000	0.08644101	-0.02231475
		Z	-0.12012784	-0.00000000	-0.24072609	0.00000000	-0.00000000
18	H	X	-0.06961044	0.04762761	0.01405882	0.06410012	-0.04703631
		Y	-0.14645183	-0.01408639	0.11914677	0.02919470	-0.07065159
		Z	0.24080742	0.00017790	-0.18881331	0.00000895	-0.00318068
19	H	X	0.06961044	0.04762761	-0.01405882	0.06410012	-0.04703631
		Y	0.14645183	-0.01408639	-0.11914677	0.02919470	-0.07065159
		Z	0.24080742	-0.00017790	-0.18881331	-0.00000895	0.00318068
20	H	X	0.08545053	-0.01956213	-0.04890239	-0.01140855	-0.14710534
		Y	0.09617000	0.05454793	-0.04216236	0.09056625	0.00572427
		Z	-0.17573176	0.00015396	0.04777082	0.00345711	-0.00262605
21	H	X	-0.08545053	-0.01956213	0.04890239	-0.01140855	-0.14710534
		Y	-0.09617000	0.05454793	0.04216236	0.09056625	0.00572427
		Z	-0.17573176	-0.00015396	0.04777082	-0.00345711	0.00262605
22	H	X	0.02792102	0.04788488	0.00062312	-0.12771572	-0.02163082
		Y	0.01606824	0.08318168	-0.01385356	0.04586356	0.07470520
		Z	-0.09908543	0.00076564	0.03825155	0.00111031	-0.00008892
23	H	X	-0.02792102	0.04788488	-0.00062312	-0.12771572	-0.02163082
		Y	-0.01606824	0.08318168	0.01385356	0.04586356	0.07470520
		Z	-0.09908543	-0.00076564	0.03825155	-0.00111031	0.00008892
TRANS. SAYVETZ		X	-0.00000000	-0.04679976	-0.00000000	0.00179497	-0.00043076
		Y	-0.00000000	0.01015600	0.00000000	-0.00943069	-0.00074313
		Z	-0.03487797	0.00000000	0.02006966	0.00000000	0.00000000
		TOTAL	0.03487797	0.04788906	0.02006966	0.00959999	0.00085895
ROT. SAYVETZ		X	0.07119219	-0.00000000	-0.02933694	0.00000000	0.00000000
		Y	-0.17258222	0.00000000	-0.01980313	-0.00000000	-0.00000000
		Z	-0.00000000	-0.01314303	0.00000000	-0.07011382	-0.10293544
		TOTAL	0.18668945	0.01314303	0.03539520	0.07011382	0.10293544

		16	17	18	19	20
FREQUENCY:		340.56	374.93	382.94	408.78	462.23
SYMMETRY:		A''	A'	A''	A''	A'
REDUCED MASS:		4.43545	6.20705	2.96274	4.28361	7.83246

1	N	X	-0.00000000	-0.03146224	-0.00000000	0.00000000	-0.05850031
		Y	0.00000000	0.00137775	-0.00000000	-0.00000000	-0.00483187
		Z	0.00086982	0.00000000	-0.04201618	0.12665112	0.00000000
2	C	X	-0.00000000	-0.03451597	-0.00000000	0.00000000	-0.03575746
		Y	0.00000000	0.02755105	0.00000000	-0.00000000	-0.04407508
		Z	0.00172571	-0.00000000	0.11419780	-0.01894286	-0.00000000
3	C	X	-0.00000000	-0.01357349	-0.00000000	-0.00000000	0.03819321
		Y	0.00000000	0.02654452	0.00000000	-0.00000000	-0.03636173
		Z	-0.00218774	0.00000000	-0.09641134	-0.12307536	0.00000000
4	C	X	-0.00000000	-0.05705249	-0.00000000	-0.00000000	0.01470224
		Y	0.00000000	-0.00022495	-0.00000000	-0.00000000	-0.07185569
		Z	0.00152553	0.00000000	-0.06573845	0.13093319	0.00000000
5	C	X	-0.00000000	-0.06190178	-0.00000000	-0.00000000	-0.00617398
		Y	-0.00000000	-0.02533900	-0.00000000	-0.00000000	-0.02596177
		Z	0.00143554	-0.00000000	0.14668469	-0.04752735	-0.00000000
6	C	X	-0.00000000	-0.05825862	-0.00000000	0.00000000	-0.06318714
		Y	-0.00000000	-0.02595125	-0.00000000	-0.00000000	-0.00299830
		Z	-0.00234980	0.00000000	-0.07339767	-0.07527029	0.00000000
7	C	X	0.00000000	0.03780661	0.00000000	-0.00000000	0.05372257
		Y	-0.00000000	-0.03236225	-0.00000000	0.00000000	0.07451356
		Z	-0.00274075	0.00000000	-0.05610405	-0.09168882	-0.00000000
8	C	X	0.00000000	0.07714805	0.00000000	-0.00000000	0.00579317
		Y	0.00000000	0.00414503	0.00000000	0.00000000	0.05333311
		Z	0.00775913	0.00000000	0.00342049	0.00321435	0.00000000
9	C	X	0.00000000	0.04202895	0.00000000	-0.00000000	0.02710419
		Y	0.00000000	0.09976039	0.00000000	-0.00000000	-0.04562765
		Z	-0.02704394	0.00000000	0.00668727	0.00953258	0.00000000
10	O	X	0.00000000	0.13567269	0.00000000	-0.00000000	0.09073954
		Y	-0.00000000	-0.06131785	-0.00000000	0.00000000	0.07195279
		Z	0.00203555	-0.00000000	0.02891447	0.03288089	-0.00000000
11	C	X	0.00000000	-0.01841414	-0.00000000	-0.00000000	0.02931077
		Y	-0.00000000	0.04650665	0.00000000	-0.00000000	-0.02677075
		Z	-0.05200082	0.00000000	0.00145418	0.00203928	0.00000000
12	N	X	0.00000000	0.00008663	-0.00000000	-0.00000000	-0.09172192
		Y	-0.00000000	-0.06521843	-0.00000000	0.00000000	0.09724144
		Z	0.20402458	-0.00000000	-0.00476016	-0.00573711	0.00000000
13	N	X	-0.00000000	-0.04355018	-0.00000000	-0.00000000	-0.01326087
		Y	0.00000000	0.01407682	0.00000000	-0.00000000	-0.05649148
		Z	-0.12188775	0.00000000	0.00227813	0.00242156	-0.00000000
14	H	X	-0.00000000	-0.02712364	-0.00000000	0.00000000	-0.08263871
		Y	0.00000000	0.03256593	0.00000000	-0.00000000	-0.08714963
		Z	0.00580944	-0.00000000	0.33704191	-0.01743724	-0.00000000
15	H	X	-0.00000000	-0.09955559	-0.00000000	-0.00000000	0.01085161
		Y	0.00000000	0.01357808	0.00000000	-0.00000000	-0.06988682
		Z	0.00314302	0.00000000	-0.12559358	0.31888459	0.00000000
16	H	X	-0.00000000	-0.06471837	-0.00000000	-0.00000000	0.03686833
		Y	-0.00000000	-0.02772154	-0.00000000	-0.00000000	0.02054756
		Z	0.00317031	-0.00000000	0.29549700	-0.03994952	-0.00000000
17	H	X	-0.00000000	-0.05244152	-0.00000000	0.00000000	-0.06820675
		Y	-0.00000000	-0.04509266	-0.00000000	-0.00000000	0.01141277
		Z	-0.00627747	0.00000000	-0.22075876	-0.16707244	0.00000000
18	H	X	-0.01738235	0.13247240	0.01746194	0.03653068	-0.03945716
		Y	-0.03559760	-0.00826144	-0.06167154	-0.10389957	0.06024452
		Z	0.03642428	-0.00027506	0.04610261	0.07372803	0.00157589
19	H	X	0.01738235	0.13247240	-0.01746194	-0.03653068	-0.03945716

		Y	0.03559760	-0.00826144	0.06167154	0.10389957	0.06024452
		Z	0.03642428	0.00027506	0.04610261	0.07372803	-0.00157589
20	H	X	0.00833534	0.03713993	-0.00167000	-0.00355836	0.05999632
		Y	-0.00878378	0.09289403	-0.00284274	-0.00541914	-0.04435444
		Z	-0.02133866	0.00389621	0.00864953	0.01341157	-0.00351530
21	H	X	-0.00833534	0.03713993	0.00167000	0.00355836	0.05999632
		Y	0.00878378	0.09289403	0.00284274	0.00541914	-0.04435444
		Z	-0.02133866	-0.00389621	0.00864953	0.01341157	0.00351530
22	H	X	0.14624435	-0.08384968	-0.00547805	-0.00687560	0.06742460
		Y	0.17081289	0.04067101	0.00175173	0.00388334	-0.02389914
		Z	-0.16915928	0.00263677	0.00020439	-0.00066712	-0.00290614
23	H	X	-0.14624435	-0.08384968	0.00547805	0.00687560	0.06742460
		Y	-0.17081289	0.04067101	-0.00175173	-0.00388334	-0.02389914
		Z	-0.16915928	-0.00263677	0.00020439	-0.00066712	0.00290614

TRANS. SAYVETZ	X	0.00000000	0.00720715	-0.00000000	-0.00000000	-0.00003193
	Y	-0.00000000	-0.00436881	0.00000000	-0.00000000	0.00199189
	Z	0.00371313	0.00000000	0.00808688	-0.00695725	0.00000000
	TOTAL	0.00371313	0.00842790	0.00808688	0.00695725	0.00199215

ROT. SAYVETZ	X	-0.01303476	-0.00000000	0.03221076	-0.00989823	-0.00000000
	Y	-0.00959464	-0.00000000	0.01863838	-0.06531396	-0.00000000
	Z	-0.00000000	-0.02803960	0.00000000	0.00000000	0.02682560
	TOTAL	0.01618525	0.02803960	0.03721455	0.06605974	0.02682560

	21	22	23	24	25
FREQUENCY:	511.56	588.95	632.13	664.39	684.74
SYMMETRY:	A'	A''	A'	A'	A''
REDUCED MASS:	6.13638	2.54563	7.80774	6.65116	3.44833

1	N	X	-0.02649864	0.00000000	0.06954141	-0.00957358	-0.00000000
		Y	-0.01252544	0.00000000	0.14275717	-0.00626998	0.00000000
		Z	0.00000000	0.05215951	-0.00000000	0.00000000	0.11991876
2	C	X	-0.01286386	0.00000000	0.09707187	-0.00865790	-0.00000000
		Y	-0.04574767	-0.00000000	-0.02353910	0.00041237	0.00000000
		Z	0.00000000	-0.02710424	0.00000000	-0.00000000	-0.10173614
3	C	X	0.02025287	0.00000000	0.04339903	0.01067374	0.00000000
		Y	-0.03073248	-0.00000000	-0.04375435	0.00406540	0.00000000
		Z	-0.00000000	-0.11511710	0.00000000	0.00000000	0.09993742
4	C	X	0.02996363	-0.00000000	-0.05401818	0.01272863	0.00000000
		Y	-0.04568763	-0.00000000	-0.12169056	-0.00630053	-0.00000000
		Z	-0.00000000	-0.01028820	-0.00000000	-0.00000000	-0.07748397
5	C	X	0.02053439	-0.00000000	-0.10727733	0.01448218	0.00000000
		Y	-0.01035519	0.00000000	0.03592325	-0.01172580	-0.00000000
		Z	0.00000000	0.02085472	-0.00000000	0.00000000	0.10814526
6	C	X	-0.01620369	-0.00000000	-0.03469330	-0.00789921	-0.00000000
		Y	0.00531764	0.00000000	0.04133602	-0.00389183	-0.00000000
		Z	-0.00000000	-0.04190666	0.00000000	-0.00000000	-0.09647256
7	C	X	0.00345156	0.00000000	0.01500463	0.00546538	0.00000000
		Y	0.05853281	-0.00000000	-0.00620933	0.02924025	-0.00000000
		Z	0.00000000	0.17090702	-0.00000000	-0.00000000	-0.00343159
8	C	X	-0.09222177	-0.00000000	0.00870697	-0.04104338	0.00000000
		Y	0.00638881	-0.00000000	-0.02990586	-0.05244911	-0.00000000
		Z	0.00000000	0.04459321	-0.00000000	-0.00000000	-0.00387379
9	C	X	-0.08458129	0.00000000	-0.01200227	-0.04323787	0.00000000
		Y	0.00962650	-0.00000000	-0.00428404	-0.00826366	0.00000000
		Z	-0.00000000	-0.00936901	0.00000000	0.00000000	-0.00063926
10	O	X	0.08487060	-0.00000000	-0.02014121	0.00019562	-0.00000000
		Y	0.04117168	0.00000000	0.00147076	0.03791796	0.00000000
		Z	-0.00000000	-0.05474933	0.00000000	0.00000000	0.00311979

11	C	X	-0.08926864	0.00000000	-0.00334948	0.18453740	-0.00000000
		Y	0.01069409	0.00000000	0.01230497	0.12692141	-0.00000000
		Z	0.00000000	-0.00685239	0.00000000	0.00000000	0.00008040
12	N	X	0.11305126	-0.00000000	0.00307914	-0.01683469	0.00000000
		Y	-0.06474566	-0.00000000	-0.00790938	-0.09457464	0.00000000
		Z	0.00000000	0.00541265	0.00000000	-0.00000000	-0.00016078
13	N	X	0.05182673	-0.00000000	-0.00203521	-0.06866738	0.00000000
		Y	0.06446126	-0.00000000	0.00147739	-0.01687438	0.00000000
		Z	0.00000000	-0.00159399	0.00000000	-0.00000000	0.00002177
14	H	X	-0.04589227	-0.00000000	0.02322707	-0.01718810	-0.00000000
		Y	-0.07480553	-0.00000000	-0.09004722	-0.00632822	0.00000000
		Z	0.00000000	0.04947429	-0.00000000	-0.00000000	-0.29221599
15	H	X	0.04853222	0.00000000	-0.02287409	0.00392627	-0.00000000
		Y	-0.05060778	-0.00000000	-0.13078893	-0.00394708	-0.00000000
		Z	0.00000000	0.12254307	-0.00000000	-0.00000000	-0.20152862
16	H	X	0.04732697	0.00000000	-0.04447364	0.02207285	0.00000000
		Y	0.01800185	0.00000000	0.10460905	-0.00389097	-0.00000000
		Z	0.00000000	0.14118477	-0.00000000	-0.00000000	-0.05001053
17	H	X	-0.02266896	-0.00000000	0.01105793	-0.01201547	-0.00000000
		Y	0.02563981	-0.00000000	-0.10129420	0.00868758	-0.00000000
		Z	0.00000000	-0.04582690	-0.00000000	-0.00000000	-0.31272077
18	H	X	-0.13681510	-0.08428233	0.00875702	-0.07234679	0.00682773
		Y	0.02204913	0.31883249	-0.02682809	-0.03978980	-0.02444142
		Z	-0.00334069	-0.17857031	-0.00194490	-0.00332951	0.01310606
19	H	X	-0.13681510	0.08428233	0.00875702	-0.07234679	-0.00682773
		Y	0.02204913	-0.31883249	-0.02682809	-0.03978980	0.02444142
		Z	0.00334069	-0.17857031	0.00194490	0.00332951	0.01310606
20	H	X	-0.11286645	0.04621965	-0.03156302	-0.11913663	-0.00449520
		Y	0.01116673	0.06112085	-0.00149607	0.01677892	-0.00889637
		Z	0.00018261	-0.05831848	0.00005778	-0.00887206	0.00637757
21	H	X	-0.11286645	-0.04621965	-0.03156302	-0.11913663	0.00449520
		Y	0.01116673	-0.06112085	-0.00149607	0.01677892	0.00889637
		Z	-0.00018261	-0.05831848	-0.00005778	0.00887206	0.00637757
22	H	X	-0.08214919	0.00544977	-0.00973556	0.09558532	0.00123872
		Y	0.01798661	-0.00223982	0.01083580	0.08006200	-0.00254344
		Z	-0.00139412	-0.00551158	0.00101804	0.02601924	0.00191458
23	H	X	-0.08214919	-0.00544977	-0.00973556	0.09558532	-0.00123872
		Y	0.01798661	0.00223982	0.01083580	0.08006200	0.00254344
		Z	0.00139412	-0.00551158	-0.00101804	-0.02601924	0.00191458

TRANS. SAYVETZ	X	0.00264887	0.00000000	0.00144398	-0.00016109	-0.00000000
	Y	-0.00360239	-0.00000000	0.00019414	0.00364223	-0.00000000
	Z	0.00000000	-0.00236274	0.00000000	-0.00000000	0.00144749
	TOTAL	0.00447144	0.00236274	0.00145697	0.00364579	0.00144749

ROT. SAYVETZ	X	-0.00000000	-0.02225513	-0.00000000	0.00000000	0.00579417
	Y	-0.00000000	-0.00346880	-0.00000000	0.00000000	0.02489066
	Z	-0.02836743	-0.00000000	-0.00129311	-0.00241346	-0.00000000
	TOTAL	0.02836743	0.02252384	0.00129311	0.00241346	0.02555616

		26	27	28	29	30
FREQUENCY:		701.02	770.76	812.38	817.31	890.75
SYMMETRY:		A'	A''	A''	A'	A''
REDUCED MASS:		6.84888	1.14308	1.32442	5.92467	1.46557

1	N	X	-0.02443447	-0.00000000	0.00000000	0.01862315	0.00000000
		Y	0.03992354	-0.00000000	0.00000000	0.07868830	0.00000000
		Z	-0.00000000	0.01063920	0.03259318	-0.00000000	0.00031040
2	C	X	-0.03312311	0.00000000	0.00000000	-0.00101510	-0.00000000
		Y	0.10303896	-0.00000000	0.00000000	0.07065971	0.00000000

3	C	Z	0.00000000	-0.01701059	-0.04589929	0.00000000	-0.02836693
		X	0.08893272	-0.00000000	0.00000000	0.02126645	0.00000000
		Y	0.04798613	-0.00000000	0.00000000	0.01247650	0.00000000
4	C	Z	-0.00000000	-0.00580777	0.07413491	-0.00000000	-0.03901830
		X	0.04411540	-0.00000000	0.00000000	0.04407770	0.00000000
		Y	-0.02136366	0.00000000	-0.00000000	-0.04131161	-0.00000000
5	C	Z	0.00000000	-0.01701710	-0.07370229	0.00000000	0.01472970
		X	0.05099417	-0.00000000	0.00000000	0.06031889	0.00000000
		Y	-0.08821559	0.00000000	-0.00000000	-0.07331387	-0.00000000
6	C	Z	-0.00000000	-0.00761237	-0.04615525	0.00000000	0.02429758
		X	-0.08620494	0.00000000	-0.00000000	-0.05388554	-0.00000000
		Y	-0.04691029	0.00000000	-0.00000000	-0.02608552	-0.00000000
7	C	Z	0.00000000	-0.01388571	-0.06067268	0.00000000	0.01157643
		X	0.08453138	0.00000000	-0.00000000	-0.05713632	-0.00000000
		Y	-0.00634013	0.00000000	-0.00000000	-0.05035077	-0.00000000
8	C	Z	0.00000000	0.05420788	-0.00937829	-0.00000000	0.10195507
		X	0.05361716	0.00000000	-0.00000000	-0.09408206	-0.00000000
		Y	-0.08507962	-0.00000000	0.00000000	0.12580676	0.00000000
9	C	Z	-0.00000000	-0.02122316	-0.02508449	0.00000000	-0.08258283
		X	-0.01842564	-0.00000000	-0.00000000	-0.00536545	0.00000000
		Y	-0.01694875	0.00000000	0.00000000	0.02649334	0.00000000
10	O	Z	-0.00000000	-0.05762915	0.01290428	-0.00000000	-0.02119542
		X	-0.06922128	0.00000000	0.00000000	0.00716888	0.00000000
		Y	0.04087406	0.00000000	-0.00000000	-0.09218397	-0.00000000
11	C	Z	-0.00000000	-0.01290063	0.00223240	0.00000000	-0.02204238
		X	-0.05954950	0.00000000	0.00000000	0.04919098	0.00000000
		Y	0.01002351	0.00000000	-0.00000000	-0.02489925	-0.00000000
12	N	Z	0.00000000	-0.04806205	0.02524051	-0.00000000	0.07712531
		X	0.00899510	-0.00000000	-0.00000000	-0.00083593	-0.00000000
		Y	0.00377569	-0.00000000	0.00000000	-0.00242107	-0.00000000
13	N	Z	0.00000000	0.02064302	-0.00976830	0.00000000	-0.02666101
		X	0.00961256	-0.00000000	-0.00000000	-0.00178476	-0.00000000
		Y	0.00642982	0.00000000	-0.00000000	-0.00157182	0.00000000
14	H	Z	0.00000000	-0.00377342	0.00188968	-0.00000000	0.00507601
		X	-0.05401280	-0.00000000	-0.00000000	-0.01453228	-0.00000000
		Y	0.08494693	-0.00000000	0.00000000	0.06169656	0.00000000
15	H	Z	0.00000000	0.07570459	0.21244404	-0.00000000	0.15690269
		X	-0.08394997	0.00000000	-0.00000000	-0.00743979	-0.00000000
		Y	0.01351165	0.00000000	-0.00000000	-0.02950574	-0.00000000
16	H	Z	0.00000000	0.10309235	0.39579158	-0.00000000	-0.05932048
		X	0.10417990	-0.00000000	0.00000000	0.12521441	0.00000000
		Y	-0.03190815	-0.00000000	0.00000000	-0.00690465	-0.00000000
17	H	Z	0.00000000	0.12912945	0.57853736	-0.00000000	-0.20311476
		X	-0.09087214	0.00000000	-0.00000000	-0.04844320	-0.00000000
		Y	-0.03690043	0.00000000	-0.00000000	-0.04448240	-0.00000000
18	H	Z	0.00000000	0.07395608	0.34961664	-0.00000000	-0.05511400
		X	0.03900428	-0.12736221	0.01746827	-0.10991500	-0.18445804
		Y	-0.07459144	-0.13698832	-0.07494866	0.11741496	-0.25148759
19	H	Z	-0.00493695	0.10165132	0.02818545	0.00887062	0.13510118
		X	0.03900428	0.12736221	-0.01746827	-0.10991500	0.18445804
		Y	-0.07459144	0.13698832	0.07494866	0.11741496	0.25148759
20	H	Z	0.00493695	0.10165132	0.02818545	-0.00887062	0.13510118
		X	-0.06961401	-0.02604262	-0.04734320	0.06627846	-0.27285543
		Y	-0.01334765	-0.40606623	0.08158679	0.02164326	-0.03680086
21	H	Z	0.00265823	0.24339139	-0.04193595	-0.00360171	0.03595791
		X	-0.06961401	0.02604262	0.04734320	0.06627846	0.27285543
		Y	-0.01334765	0.40606623	-0.08158679	0.02164326	0.03680086
22	H	Z	-0.00265823	0.24339139	-0.04193595	0.00360171	0.03595791
		X	-0.06080048	0.12680759	-0.04718941	0.06636963	-0.09219488
		Y	0.01805138	-0.31145750	0.11957756	-0.03250722	0.27589499

23	H	Z	-0.00390597	0.17218175	-0.05914333	0.00375806	-0.11686942
		X	-0.06080048	-0.12680759	0.04718941	0.06636963	0.09219488
		Y	0.01805138	0.31145750	-0.11957756	-0.03250722	-0.27589499
		Z	0.00390597	0.17218175	-0.05914333	-0.00375806	-0.11686942

TRANS.	SAYVETZ	X	-0.00001098	-0.00000000	0.00000000	0.00023376	-0.00000000
		Y	-0.00096303	0.00000000	-0.00000000	0.00061742	0.00000000
		Z	0.00000000	-0.00220271	-0.00008077	-0.00000000	-0.00090438
	TOTAL		0.00096309	0.00220271	0.00008077	0.00066019	0.00090438

ROT.	SAYVETZ	X	-0.00000000	-0.00337696	-0.01371867	-0.00000000	-0.00037034
		Y	0.00000000	-0.00378156	-0.02727038	-0.00000000	0.00544515
		Z	-0.00647358	0.00000000	0.00000000	0.00102483	-0.00000000
	TOTAL		0.00647358	0.00506992	0.03052664	0.00102483	0.00545773

		31	32	33	34	35
FREQUENCY:		926.21	973.78	991.52	1017.24	1054.19
SYMMETRY:		A''	A''	A''	A'	A'
REDUCED MASS:		1.28199	1.27787	1.40859	5.31232	4.42998

1	N	X	-0.00000000	0.00000000	0.00000000	-0.01922401	-0.00011629
		Y	0.00000000	0.00000000	0.00000000	-0.07995664	0.07315163
		Z	0.00902363	-0.01907400	0.00808053	0.00000000	0.00000000
2	C	X	0.00000000	-0.00000000	0.00000000	0.00187391	0.06781777
		Y	-0.00000000	0.00000000	-0.00000000	0.02847642	-0.12463672
		Z	-0.11767396	0.04883190	0.05630211	0.00000000	-0.00000000
3	C	X	0.00000000	-0.00000000	-0.00000000	0.09318255	-0.00051428
		Y	-0.00000000	-0.00000000	-0.00000000	0.00525839	-0.01667004
		Z	0.02335441	-0.00447204	-0.02432570	0.00000000	-0.00000000
4	C	X	-0.00000000	0.00000000	0.00000000	-0.01480425	0.01765596
		Y	0.00000000	-0.00000000	0.00000000	0.01387878	0.16482844
		Z	0.02253978	-0.10342702	0.04208095	0.00000000	-0.00000000
5	C	X	0.00000000	0.00000000	0.00000000	-0.07797623	0.01230418
		Y	-0.00000000	-0.00000000	-0.00000000	0.07745945	-0.03632845
		Z	0.04886340	0.07523400	0.04381933	0.00000000	-0.00000000
6	C	X	0.00000000	-0.00000000	-0.00000000	0.00828573	-0.08670576
		Y	0.00000000	0.00000000	-0.00000000	-0.00815406	-0.04600112
		Z	-0.01883075	-0.00059211	-0.13521069	-0.00000000	0.00000000
7	C	X	-0.00000000	0.00000000	-0.00000000	0.14344831	0.02825900
		Y	0.00000000	0.00000000	0.00000000	-0.06919630	-0.01388622
		Z	-0.02787350	-0.00506883	0.00510766	-0.00000000	0.00000000
8	C	X	-0.00000000	-0.00000000	0.00000000	-0.00090708	0.01093835
		Y	-0.00000000	-0.00000000	-0.00000000	0.10057745	0.02873772
		Z	0.01719355	-0.00068237	-0.00038994	0.00000000	-0.00000000
9	C	X	-0.00000000	0.00000000	0.00000000	-0.05490599	0.00471083
		Y	0.00000000	0.00000000	-0.00000000	-0.03506662	-0.04116916
		Z	0.01167959	0.00154044	-0.00461913	-0.00000000	0.00000000
10	O	X	-0.00000000	-0.00000000	0.00000000	-0.03393910	-0.00546276
		Y	0.00000000	0.00000000	0.00000000	-0.03740633	-0.00633484
		Z	0.00501852	0.00031772	-0.00036663	-0.00000000	-0.00000000
11	C	X	0.00000000	-0.00000000	0.00000000	0.00652120	-0.01227416
		Y	-0.00000000	-0.00000000	0.00000000	0.01200724	0.03161647
		Z	-0.02034583	-0.00190919	0.00455766	0.00000000	-0.00000000
12	N	X	0.00000000	0.00000000	-0.00000000	0.00649126	0.00276966
		Y	-0.00000000	-0.00000000	0.00000000	-0.00998265	-0.00589371
		Z	0.00697469	0.00057756	-0.00155155	-0.00000000	-0.00000000
13	N	X	-0.00000000	-0.00000000	0.00000000	0.00024007	-0.00145410
		Y	0.00000000	0.00000000	-0.00000000	0.00265999	0.00115635
		Z	-0.00127852	-0.00010237	0.00026638	-0.00000000	-0.00000000
14	H	X	-0.00000000	-0.00000000	-0.00000000	0.00431971	-0.05550348

		Y	-0.00000000	-0.00000000	-0.00000000	0.02798287	-0.24314234
		Z	0.72863252	-0.14903140	-0.26104400	-0.00000000	0.00000000
15	H	X	-0.00000000	0.00000000	0.00000000	-0.02100659	-0.04787978
		Y	0.00000000	-0.00000000	0.00000000	0.01982328	0.19245832
		Z	-0.06021867	0.70344487	-0.26267600	0.00000000	0.00000000
16	H	X	-0.00000000	-0.00000000	-0.00000000	-0.09803897	-0.08170908
		Y	-0.00000000	-0.00000000	-0.00000000	0.06559240	-0.13197772
		Z	-0.37941123	-0.48995920	-0.14827457	-0.00000000	0.00000000
17	H	X	-0.00000000	0.00000000	-0.00000000	0.01516382	-0.07285496
		Y	0.00000000	-0.00000000	0.00000000	-0.03652849	-0.10743298
		Z	0.20396507	0.07518605	0.72321768	0.00000000	-0.00000000
18	H	X	0.05120078	0.01364544	-0.01381718	-0.15322288	-0.04722928
		Y	0.05865332	-0.00408343	-0.00387496	0.13683050	0.04144738
		Z	-0.03437333	0.00007644	0.00461667	0.00109164	0.00045242
19	H	X	-0.05120078	-0.01364544	0.01381718	-0.15322288	-0.04722928
		Y	-0.05865332	0.00408343	0.00387496	0.13683050	0.04144738
		Z	-0.03437333	0.00007644	0.00461667	-0.00109164	-0.00045242
20	H	X	0.07889354	0.00732236	-0.01832367	-0.08200849	-0.01470526
		Y	0.02797483	0.00401814	-0.01133505	-0.02113159	-0.03443999
		Z	-0.01756448	-0.00226966	0.00572912	-0.00738694	-0.00368774
21	H	X	-0.07889354	-0.00732236	0.01832367	-0.08200849	-0.01470526
		Y	-0.02797483	-0.00401814	0.01133505	-0.02113159	-0.03443999
		Z	-0.01756448	-0.00226966	0.00572912	0.00738694	0.00368774
22	H	X	0.01868364	0.00155349	-0.00207217	0.01813551	-0.02494736
		Y	-0.06790441	-0.00572726	0.01380139	0.00318253	0.03173682
		Z	0.02727830	0.00209994	-0.00507095	0.00575482	0.00104328
23	H	X	-0.01868364	-0.00155349	0.00207217	0.01813551	-0.02494736
		Y	0.06790441	0.00572726	-0.01380139	0.00318253	0.03173682
		Z	0.02727830	0.00209994	-0.00507095	-0.00575482	-0.00104328

TRANS. SAYVETZ	X	0.00000000	0.00000000	0.00000000	0.00089885	0.00063043
	Y	0.00000000	0.00000000	0.00000000	-0.00050494	0.00030580
	Z	0.00039380	-0.00135622	-0.00058516	-0.00000000	-0.00000000
	TOTAL	0.00039380	0.00135622	0.00058516	0.00103097	0.00070068

ROT. SAYVETZ	X	0.00733765	-0.01023241	0.00024848	-0.00000000	-0.00000000
	Y	0.00264115	-0.01069416	-0.00305103	0.00000000	0.00000000
	Z	-0.00000000	-0.00000000	-0.00000000	0.00611100	-0.00028908
	TOTAL	0.00779851	0.01480092	0.00306113	0.00611100	0.00028908

	36	37	38	39	40
FREQUENCY:	1060.24	1088.02	1109.75	1110.40	1165.89
SYMMETRY:	A'	A'	A'	A''	A'
REDUCED MASS:	3.12976	2.61184	3.18573	1.73706	1.44124

1	N	X	0.00234573	-0.02303695	-0.01836116	-0.00000000	0.03637278
		Y	-0.00005606	0.07553048	0.00613035	0.00000000	0.04321530
		Z	0.00000000	-0.00000000	0.00000000	-0.00216621	-0.00000000
2	C	X	-0.01929874	-0.05902798	-0.00271352	-0.00000000	-0.08807379
		Y	0.02303240	-0.01023126	-0.02685486	-0.00000000	0.03205285
		Z	-0.00000000	0.00000000	0.00000000	-0.00316685	-0.00000000
3	C	X	-0.00539309	-0.00970988	0.06037204	0.00000000	-0.02541367
		Y	-0.00100523	-0.01223573	0.00924748	0.00000000	-0.02326146
		Z	0.00000000	-0.00000000	-0.00000000	0.02570178	0.00000000
4	C	X	-0.00699254	-0.05820071	-0.01672206	-0.00000000	0.08067037
		Y	-0.02657926	-0.02425344	0.02213150	0.00000000	0.01757382
		Z	-0.00000000	-0.00000000	0.00000000	-0.00313191	0.00000000
5	C	X	-0.00008055	0.03234012	-0.01485517	-0.00000000	-0.06804623
		Y	-0.00275787	-0.09009613	-0.01381622	-0.00000000	-0.00772008
		Z	-0.00000000	-0.00000000	0.00000000	-0.00237645	-0.00000000

6	C	X	0.02916445	0.13242978	0.03368544	0.00000000	0.02042697
		Y	0.00969502	0.06381711	0.01776185	0.00000000	-0.03088772
		Z	0.00000000	0.00000000	-0.00000000	0.00130835	0.00000000
7	C	X	0.00324543	0.03402323	0.06361108	0.00000000	0.01646152
		Y	-0.00502499	-0.01195608	-0.01784344	-0.00000000	-0.00171131
		Z	-0.00000000	0.00000000	0.00000000	-0.10310881	-0.00000000
8	C	X	-0.05304160	0.04847504	-0.11370933	-0.00000000	0.00488316
		Y	-0.00733027	0.04854063	-0.08976099	-0.00000000	-0.00553609
		Z	0.00000000	-0.00000000	-0.00000000	0.10925733	0.00000000
9	C	X	0.15803692	-0.04713568	0.06611758	0.00000000	-0.00200088
		Y	-0.09865988	-0.03866797	0.13739910	0.00000000	0.01008640
		Z	-0.00000000	0.00000000	0.00000000	-0.09423340	-0.00000000
10	O	X	-0.00413502	-0.00071394	-0.01689780	-0.00000000	0.00257098
		Y	-0.01694006	-0.00462202	0.00987159	0.00000000	0.01264068
		Z	0.00000000	-0.00000000	-0.00000000	0.01806206	-0.00000000
11	C	X	-0.06307606	-0.00033309	0.02270505	0.00000000	0.00282005
		Y	0.12981224	0.00921383	-0.06640848	-0.00000000	-0.00802208
		Z	0.00000000	-0.00000000	-0.00000000	0.07061488	0.00000000
12	N	X	0.00137835	0.00441295	-0.01122504	-0.00000000	-0.00069647
		Y	-0.00948673	-0.00656147	0.01920641	0.00000000	0.00151184
		Z	-0.00000000	0.00000000	0.00000000	-0.02256453	-0.00000000
13	N	X	-0.00739753	0.00037815	0.00151728	0.00000000	0.00039802
		Y	0.00124165	0.00174528	-0.00445118	-0.00000000	-0.00020693
		Z	-0.00000000	-0.00000000	-0.00000000	0.00376765	0.00000000
14	H	X	-0.01910265	-0.14359153	-0.10754190	-0.00000000	-0.11072066
		Y	0.02603827	-0.08420756	-0.12263839	-0.00000000	0.01560215
		Z	0.00000000	-0.00000000	-0.00000000	0.02908432	0.00000000
15	H	X	-0.00141232	-0.27158169	-0.15150770	-0.00000000	0.61409282
		Y	-0.02998039	0.03121063	0.06218580	0.00000000	-0.12653898
		Z	-0.00000000	0.00000000	-0.00000000	0.02693315	-0.00000000
16	H	X	-0.00871514	-0.18316884	-0.12621405	-0.00000000	-0.34418705
		Y	-0.01429899	-0.33873109	-0.13481617	-0.00000000	-0.29907323
		Z	0.00000000	0.00000000	0.00000000	0.00022083	0.00000000
17	H	X	0.02732791	0.09415894	0.02161532	0.00000000	0.08000143
		Y	0.02164230	0.21414250	0.06060456	0.00000000	-0.21107440
		Z	-0.00000000	-0.00000000	-0.00000000	0.00734992	-0.00000000
18	H	X	-0.20179495	0.02267030	-0.21007982	-0.25805467	-0.02976669
		Y	0.01209066	0.05299136	-0.05737318	0.28454282	0.00044246
		Z	0.00636039	0.00243669	-0.01093917	-0.06357250	0.00063299
19	H	X	-0.20179495	0.02267030	-0.21007982	0.25805467	-0.02976669
		Y	0.01209066	0.05299136	-0.05737318	-0.28454282	0.00044246
		Z	-0.00636039	-0.00243669	0.01093917	-0.06357250	-0.00063299
20	H	X	0.16944347	-0.08368771	0.11886771	-0.15616561	-0.01549436
		Y	-0.09682175	-0.02892654	0.12297970	-0.21894836	0.01165013
		Z	-0.00494346	-0.00405465	0.00913866	0.08384202	0.00088894
21	H	X	0.16944347	-0.08368771	0.11886771	0.15616561	-0.01549436
		Y	-0.09682175	-0.02892654	0.12297970	0.21894836	0.01165013
		Z	0.00494346	0.00405465	-0.00913866	0.08384202	-0.00088894
22	H	X	-0.16145131	0.01187876	0.01565143	0.02618542	0.00142404
		Y	0.14875953	0.00223606	-0.05414815	0.18276317	-0.00756584
		Z	-0.00729761	0.00470842	-0.01042928	-0.05476165	-0.00074885
23	H	X	-0.16145131	0.01187876	0.01565143	-0.02618542	0.00142404
		Y	0.14875953	0.00223606	-0.05414815	-0.18276317	-0.00756584
		Z	0.00729761	-0.00470842	0.01042928	-0.05476165	0.00074885
TRANS. SAYVETZ		X	0.00063621	0.00023782	-0.00023401	-0.00000000	-0.00029806
		Y	-0.00052363	-0.00010182	0.00000682	0.00000000	-0.00032210
		Z	0.00000000	0.00000000	-0.00000000	0.00029418	-0.00000000
TOTAL			0.00082399	0.00025870	0.00023411	0.00029418	0.00043885

ROT. SAYVETZ	X	0.00000000	0.00000000	0.00000000	-0.00312644	-0.00000000
	Y	0.00000000	0.00000000	0.00000000	-0.00392782	0.00000000
	Z	-0.00869969	-0.00060099	-0.00483565	0.00000000	-0.00269383
	TOTAL	0.00869969	0.00060099	0.00483565	0.00502020	0.00269383

		41	42	43	44	45
FREQUENCY:		1236.84	1242.65	1280.03	1287.21	1322.84
SYMMETRY:		A''	A'	A'	A'	A''
REDUCED MASS:		1.22176	2.19646	1.81483	2.36523	1.14692

1	N	X	0.00000000	0.03750120	-0.06041919	-0.10435870	0.00000000
		Y	-0.00000000	-0.06383990	0.00147522	0.01778094	0.00000000
		Z	0.00065280	0.00000000	-0.00000000	0.00000000	-0.00032979
2	C	X	0.00000000	0.03748165	0.01318626	0.12796738	-0.00000000
		Y	-0.00000000	-0.03924341	0.03141354	0.06628414	-0.00000000
		Z	-0.00066865	-0.00000000	0.00000000	-0.00000000	0.00052133
3	C	X	0.00000000	0.04620038	0.12602555	-0.01480399	-0.00000000
		Y	0.00000000	0.08595288	-0.01920606	-0.07875222	-0.00000000
		Z	-0.00718814	0.00000000	0.00000000	-0.00000000	0.00343680
4	C	X	0.00000000	0.05834033	-0.00041007	-0.07019617	-0.00000000
		Y	-0.00000000	-0.01938076	0.01369962	0.00302664	0.00000000
		Z	0.00049339	-0.00000000	-0.00000000	-0.00000000	-0.00015836
5	C	X	-0.00000000	-0.05561801	-0.01077692	0.05494244	0.00000000
		Y	-0.00000000	-0.05717920	0.04703641	0.02124418	-0.00000000
		Z	0.00070202	0.00000000	-0.00000000	-0.00000000	-0.00034880
6	C	X	-0.00000000	-0.07583379	0.03577823	-0.00456801	-0.00000000
		Y	0.00000000	0.11037130	-0.04704646	-0.05409599	0.00000000
		Z	0.00027608	0.00000000	0.00000000	-0.00000000	-0.00018259
7	C	X	-0.00000000	-0.02935666	-0.06783235	0.00868454	0.00000000
		Y	0.00000000	0.00366217	0.01765417	0.00096271	-0.00000000
		Z	0.03538669	-0.00000000	-0.00000000	-0.00000000	-0.01858445
8	C	X	-0.00000000	-0.01512028	-0.05946635	0.00177963	-0.00000000
		Y	0.00000000	0.00856715	0.00962640	-0.00788336	-0.00000000
		Z	-0.00377409	0.00000000	0.00000000	0.00000000	-0.01770531
9	C	X	-0.00000000	-0.00579932	-0.03799491	0.00780959	-0.00000000
		Y	-0.00000000	-0.01397092	-0.02187655	0.00663836	0.00000000
		Z	-0.05575553	0.00000000	0.00000000	-0.00000000	0.08956639
10	O	X	-0.00000000	-0.00936451	0.00379748	0.00573385	-0.00000000
		Y	-0.00000000	-0.01837522	-0.00231800	0.00642131	0.00000000
		Z	-0.00468873	0.00000000	0.00000000	-0.00000000	0.00166823
11	C	X	-0.00000000	-0.00586521	-0.02384260	0.00427098	-0.00000000
		Y	0.00000000	0.01307220	0.03796950	-0.00656115	0.00000000
		Z	0.09160101	-0.00000000	-0.00000000	-0.00000000	-0.01964276
12	N	X	0.00000000	0.00157382	0.00448374	-0.00092086	0.00000000
		Y	-0.00000000	-0.00337692	-0.01203207	0.00226076	-0.00000000
		Z	-0.05049698	0.00000000	0.00000000	0.00000000	-0.04026402
13	N	X	-0.00000000	-0.00070697	-0.00381762	0.00065579	-0.00000000
		Y	0.00000000	0.00046206	0.00037624	-0.00011413	-0.00000000
		Z	0.00745843	-0.00000000	0.00000000	-0.00000000	0.00529592
14	H	X	0.00000000	0.14933617	-0.16615655	0.23761177	0.00000000
		Y	0.00000000	0.04952924	-0.12511356	0.17208199	0.00000000
		Z	0.00747302	-0.00000000	-0.00000000	0.00000000	-0.00675616
15	H	X	0.00000000	0.08252320	-0.07311744	0.26767498	0.00000000
		Y	0.00000000	-0.02403783	0.03773281	-0.09511718	-0.00000000
		Z	-0.00514724	0.00000000	-0.00000000	0.00000000	0.00217982
16	H	X	-0.00000000	-0.24054553	-0.15576397	-0.17827148	0.00000000
		Y	-0.00000000	-0.25588457	-0.10352221	-0.23368814	0.00000000
		Z	-0.00072990	0.00000000	-0.00000000	0.00000000	0.00039653
17	H	X	-0.00000000	-0.18232702	0.06187190	-0.12990292	-0.00000000
		Y	0.00000000	0.43409444	-0.13493035	0.30433293	0.00000000

18	H	Z	-0.00403072	-0.00000000	0.00000000	-0.00000000	0.00202664
		X	0.33321138	0.10158871	0.32042349	-0.05386373	-0.27946980
		Y	-0.05274901	-0.02352959	-0.10030870	0.01846248	0.00663869
19	H	Z	-0.01566517	0.00505112	0.02050179	-0.00964482	0.02233993
		X	-0.33321138	0.10158871	0.32042349	-0.05386373	0.27946980
		Y	0.05274901	-0.02352959	-0.10030870	0.01846248	-0.00663869
20	H	Z	-0.01566517	-0.00505112	-0.02050179	0.00964482	0.02233993
		X	0.26376216	0.05675239	0.26283045	-0.03221592	-0.13559342
		Y	-0.16082682	-0.02379081	-0.07165951	0.01241809	0.20332680
21	H	Z	0.02879494	-0.00101049	-0.00106920	0.00097066	-0.03385153
		X	-0.26376216	0.05675239	0.26283045	-0.03221592	0.13559342
		Y	0.16082682	-0.02379081	-0.07165951	0.01241809	-0.20332680
22	H	Z	0.02879494	0.00101049	0.00106920	-0.00097066	-0.03385153
		X	0.37814746	0.01577850	0.11883187	-0.02125662	0.53727517
		Y	0.21499316	0.00813476	0.01186982	-0.00154729	-0.04186451
23	H	Z	-0.04397363	0.00427050	0.02190449	-0.00410338	0.02492947
		X	-0.37814746	0.01577850	0.11883187	-0.02125662	-0.53727517
		Y	-0.21499316	0.00813476	0.01186982	-0.00154729	0.04186451
		Z	-0.04397363	-0.00427050	-0.02190449	0.00410338	0.02492947

TRANS. SAYVETZ	X	-0.00000000	-0.00090875	-0.00059777	-0.00040239	0.00000000
	Y	0.00000000	-0.00015417	0.00052548	0.00000548	-0.00000000
	Z	-0.00027747	-0.00000000	0.00000000	-0.00000000	0.00010706
TOTAL		0.00027747	0.00092173	0.00079590	0.00040242	0.00010706

ROT. SAYVETZ	X	-0.00065150	0.00000000	-0.00000000	0.00000000	0.00163776
	Y	-0.00114279	0.00000000	-0.00000000	-0.00000000	0.00121323
	Z	0.00000000	-0.00158213	-0.00175867	0.00059909	-0.00000000
TOTAL		0.00131546	0.00158213	0.00175867	0.00059909	0.00203818

	46	47	48	49	50
FREQUENCY:	1337.57	1357.83	1389.14	1398.76	1439.95
SYMMETRY:	A'	A''	A'	A'	A'
REDUCED MASS:	1.63311	1.07769	1.41503	1.28756	1.70363

1	N	X	0.02422163	0.00000000	-0.00847522	-0.00622052	-0.00436506
		Y	0.01470705	0.00000000	-0.01256931	0.00719488	-0.01008081
		Z	-0.00000000	-0.00017715	0.00000000	0.00000000	0.00000000
2	C	X	-0.01148478	0.00000000	0.01963928	-0.03283358	0.00821550
		Y	-0.01634094	-0.00000000	0.01418382	-0.00844270	0.01074086
		Z	-0.00000000	0.00107036	-0.00000000	0.00000000	0.00000000
3	C	X	-0.09318422	-0.00000000	0.03988279	0.00989321	0.02320812
		Y	-0.01355116	-0.00000000	0.03120051	-0.08539431	-0.00015974
		Z	-0.00000000	0.00228287	0.00000000	0.00000000	-0.00000000
4	C	X	-0.01930040	-0.00000000	-0.00523948	0.07479903	0.02205818
		Y	0.00183275	0.00000000	-0.00518191	-0.00290579	-0.00929991
		Z	-0.00000000	-0.00010176	-0.00000000	0.00000000	-0.00000000
5	C	X	0.01409554	-0.00000000	-0.00380233	0.00164774	0.00281139
		Y	-0.02620515	-0.00000000	0.00725791	0.03298545	0.01849942
		Z	0.00000000	-0.00027293	-0.00000000	-0.00000000	0.00000000
6	C	X	-0.00818594	-0.00000000	0.00594286	-0.02791043	-0.00915054
		Y	0.01179159	-0.00000000	-0.01321400	0.03682457	0.00410563
		Z	0.00000000	-0.00037441	-0.00000000	-0.00000000	-0.00000000
7	C	X	0.10402919	0.00000000	-0.07091084	-0.01979837	-0.07130310
		Y	-0.02793450	-0.00000000	0.02301783	0.00664770	0.03395719
		Z	0.00000000	-0.01849089	-0.00000000	-0.00000000	0.00000000
8	C	X	-0.02248018	-0.00000000	0.06198477	-0.00349536	0.12459364
		Y	-0.01146490	-0.00000000	-0.01468974	-0.00540514	-0.05327471
		Z	0.00000000	-0.05724203	-0.00000000	-0.00000000	-0.00000000
9	C	X	-0.06032826	-0.00000000	0.06551953	0.03220660	-0.09681330

		Y	0.01541313	0.00000000	0.01106649	0.00372845	0.01523811
		Z	-0.00000000	0.02863606	-0.00000000	0.00000000	0.00000000
10	O	X	-0.00745792	-0.00000000	0.00280987	0.00847018	0.00484185
		Y	0.02047517	0.00000000	-0.01979373	0.00871831	-0.01988565
		Z	0.00000000	0.00244791	0.00000000	-0.00000000	-0.00000000
11	C	X	-0.06096408	0.00000000	-0.08099885	-0.02206755	0.02133854
		Y	0.04407368	-0.00000000	0.02195721	0.00413003	-0.00067146
		Z	0.00000000	0.03786672	0.00000000	0.00000000	-0.00000000
12	N	X	0.00513339	-0.00000000	0.00111061	-0.00015560	0.00039448
		Y	-0.02105124	0.00000000	-0.01688889	-0.00378652	0.00167827
		Z	0.00000000	0.00300962	0.00000000	0.00000000	-0.00000000
13	N	X	-0.01174384	0.00000000	-0.01843862	-0.00522028	0.00482381
		Y	-0.00270098	0.00000000	-0.00744876	-0.00230636	0.00228769
		Z	-0.00000000	-0.00001419	-0.00000000	-0.00000000	0.00000000
14	H	X	0.14180860	0.00000000	-0.18819827	0.42688973	-0.02777817
		Y	0.11797175	0.00000000	-0.16875274	0.40111433	-0.01984272
		Z	-0.00000000	-0.01409432	0.00000000	-0.00000000	-0.00000000
15	H	X	0.08033387	0.00000000	0.05450187	-0.40379521	-0.09278702
		Y	-0.02839123	-0.00000000	-0.02175830	0.13250611	0.02250351
		Z	-0.00000000	0.00073222	-0.00000000	-0.00000000	0.00000000
16	H	X	0.11152999	0.00000000	-0.00822751	-0.22046409	-0.08001422
		Y	0.07427796	0.00000000	0.00346353	-0.20100486	-0.06850127
		Z	0.00000000	0.00042733	0.00000000	0.00000000	0.00000000
17	H	X	-0.02063801	-0.00000000	-0.01705160	0.07875225	0.00811985
		Y	0.05538395	0.00000000	0.05365968	-0.29305644	-0.05381403
		Z	0.00000000	0.00186661	0.00000000	0.00000000	0.00000000
18	H	X	0.01242518	-0.40267595	-0.18425393	-0.02196261	-0.33158722
		Y	0.00528592	-0.03663954	0.05884585	0.01041895	0.16263359
		Z	-0.01481661	0.02649133	-0.01417642	-0.00899744	-0.08367879
19	H	X	0.01242518	0.40267595	-0.18425393	-0.02196261	-0.33158722
		Y	0.00528592	0.03663954	0.05884585	0.01041895	0.16263359
		Z	0.01481661	0.02649133	0.01417642	0.00899744	0.08367879
20	H	X	0.33850863	0.53088120	-0.22620236	-0.09999513	0.32852286
		Y	-0.05462875	-0.03156555	0.02730947	0.01508896	-0.04182861
		Z	0.00367743	-0.01085733	0.02288850	0.00739796	-0.00777223
21	H	X	0.33850863	-0.53088120	-0.22620236	-0.09999513	0.32852286
		Y	-0.05462875	0.03156555	0.02730947	0.01508896	-0.04182861
		Z	-0.00367743	-0.01085733	-0.02288850	-0.00739796	0.00777223
22	H	X	0.36828021	-0.09276997	0.45606886	0.12086084	-0.09348566
		Y	-0.02618893	0.07116877	-0.05554589	-0.01584441	0.02529702
		Z	0.05737457	-0.00963091	0.06314080	0.01616894	-0.01774233
23	H	X	0.36828021	0.09276997	0.45606886	0.12086084	-0.09348566
		Y	-0.02618893	-0.07116877	-0.05554589	-0.01584441	0.02529702
		Z	-0.05737457	-0.00963091	-0.06314080	-0.01616894	0.01774233

TRANS. SAYVETZ	X	-0.00114810	-0.00000000	-0.00044846	0.00063331	0.00031747
	Y	0.00092497	-0.00000000	0.00103416	0.00024590	-0.00017149
	Z	-0.00000000	0.00005168	-0.00000000	-0.00000000	-0.00000000
	TOTAL	0.00147435	0.00005168	0.00112721	0.00067938	0.00036083

ROT. SAYVETZ	X	0.00000000	-0.00108894	-0.00000000	-0.00000000	-0.00000000
	Y	0.00000000	-0.00026191	0.00000000	0.00000000	-0.00000000
	Z	0.00685713	-0.00000000	0.01279409	0.00029141	0.00193695
	TOTAL	0.00685713	0.00111999	0.01279409	0.00029141	0.00193695

		51	52	53	54	55
FREQUENCY:		1487.61	1500.13	1525.68	1536.67	1554.70
SYMMETRY:		A'	A'	A'	A'	A'
REDUCED MASS:		2.23520	1.07802	1.10838	1.09428	2.26558

1	N	X	0.11522805	-0.00532178	0.00817907	0.00115292	0.03933468
		Y	-0.00029723	-0.00022759	0.00885311	0.00332092	-0.04645502
		Z	0.00000000	-0.00000000	0.00000000	0.00000000	-0.00000000
2	C	X	-0.05840695	0.00309838	-0.01770659	-0.00573168	0.04598965
		Y	0.05665670	-0.00240608	-0.00360080	-0.00181538	0.04632486
		Z	0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
3	C	X	0.00090845	-0.00069843	0.01263712	0.00558613	-0.09768111
		Y	-0.12898805	0.00559452	-0.01165021	-0.00315507	0.02405750
		Z	0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
4	C	X	0.02222332	-0.00140103	0.00023091	0.00020460	0.00425809
		Y	0.03017625	-0.00127163	0.01103069	0.00379505	-0.06652993
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000	0.00000000
5	C	X	-0.02400102	0.00128158	-0.01633826	-0.00616539	0.10256965
		Y	0.04496977	-0.00245140	-0.00671737	-0.00294892	0.08914902
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
6	C	X	-0.02412195	0.00078417	0.01037957	0.00425932	-0.07408022
		Y	-0.07385319	0.00417388	-0.01615079	-0.00544083	0.02714640
		Z	-0.00000000	-0.00000000	0.00000000	0.00000000	-0.00000000
7	C	X	-0.01183681	0.00157860	0.00278987	-0.00225373	0.04502597
		Y	-0.00375605	-0.00087942	0.00389214	0.00168199	-0.01100462
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
8	C	X	0.00279987	0.00416150	-0.04321259	-0.01097326	-0.01968464
		Y	0.00589408	0.01039517	-0.06342247	-0.02350035	-0.00228702
		Z	0.00000000	-0.00000000	0.00000000	0.00000000	-0.00000000
9	C	X	-0.00238562	-0.00605367	0.02046474	-0.00111740	0.00411281
		Y	0.00174914	0.00830933	0.01613088	-0.07801023	-0.00358033
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000	0.00000000
10	O	X	0.01200589	-0.00040840	-0.00113147	-0.00033316	-0.00310988
		Y	0.02003339	-0.00010821	-0.00427416	-0.00116823	0.00386881
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	-0.00000000
11	C	X	0.00017681	-0.00483594	0.00260189	-0.01090758	-0.00016258
		Y	-0.00297240	-0.07166787	-0.00523241	-0.00927586	-0.00107712
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000	0.00000000
12	N	X	-0.00000952	0.00227855	-0.00061337	0.00114879	0.00010921
		Y	-0.00032045	-0.01239126	0.00005323	-0.00229859	-0.00019363
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
13	N	X	-0.00042985	-0.01306997	-0.00155953	-0.00183175	-0.00010727
		Y	-0.00021977	-0.00504297	-0.00099699	-0.00041495	-0.00000061
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000	-0.00000000
14	H	X	-0.17643406	0.01030045	0.01113346	0.00792608	-0.30545806
		Y	-0.03549325	0.00330726	0.02264469	0.01049563	-0.26054993
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000	0.00000000
15	H	X	-0.21116236	0.01025166	0.01334852	0.00701968	-0.16742593
		Y	0.10138026	-0.00484912	0.01026356	0.00289590	-0.03491885
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
16	H	X	-0.04372720	0.00232909	0.03487488	0.01272154	-0.24313952
		Y	0.04179330	-0.00228225	0.05115707	0.01824136	-0.28799737
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
17	H	X	-0.22118037	0.01040406	-0.02230532	-0.00586724	-0.01350685
		Y	0.49767281	-0.02366514	0.08434360	0.02639702	-0.19011545
		Z	0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
18	H	X	-0.01488813	-0.01368204	0.18557577	0.06075597	0.06999875
		Y	-0.05793542	-0.05569958	0.45234248	0.13613666	0.05701931
		Z	0.04577341	0.04858750	-0.38947111	-0.12165433	-0.05294859
19	H	X	-0.01488813	-0.01368204	0.18557577	0.06075597	0.06999875
		Y	-0.05793542	-0.05569958	0.45234248	0.13613666	0.05701931
		Z	-0.04577341	-0.04858750	0.38947111	0.12165433	0.05294859
20	H	X	0.00664478	-0.00797650	-0.06573962	0.05241872	-0.01529026
		Y	0.00132624	-0.03672356	-0.15832177	0.49620556	0.00624865
		Z	-0.00070221	0.03050057	0.12901120	-0.40154702	-0.00484267

21	H	X	0.00664478	-0.00797650	-0.06573962	0.05241872	-0.01529026
		Y	0.00132624	-0.03672356	-0.15832177	0.49620556	0.00624865
		Z	0.00070221	-0.03050057	-0.12901120	0.40154702	0.00484267
22	H	X	0.00493046	0.13251991	-0.00318368	0.03630104	0.00006264
		Y	0.01820338	0.52861812	0.05143497	0.05013509	0.00862794
		Z	-0.01389784	-0.39424799	-0.03730989	-0.03924333	-0.00667090
23	H	X	0.00493046	0.13251991	-0.00318368	0.03630104	0.00006264
		Y	0.01820338	0.52861812	0.05143497	0.05013509	0.00862794
		Z	0.01389784	0.39424799	0.03730989	0.03924333	0.00667090

TRANS. SAYVETZ	X	-0.00058713	-0.00018121	0.00063906	-0.00067477	0.00042317
	Y	-0.00010215	0.00001965	-0.00020932	-0.00009608	0.00031542
	Z	0.00000000	-0.00000000	0.00000000	0.00000000	0.00000000
TOTAL		0.00059595	0.00018227	0.00067247	0.00068158	0.00052779

ROT. SAYVETZ	X	0.00000000	-0.00000000	-0.00000000	-0.00000000	-0.00000000
	Y	-0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
	Z	0.00193750	0.00082442	0.00071604	-0.00027715	0.00063431
TOTAL		0.00193750	0.00082442	0.00071604	0.00027715	0.00063431

		56	57	58	59	60
FREQUENCY:		1663.54	1687.93	1807.63	2443.48	3072.32
SYMMETRY:		A'	A'	A'	A'	A'
REDUCED MASS:		5.50882	5.62013	11.78898	13.53427	1.06063

1	N	X	0.04279716	-0.07091672	0.00883668	-0.00002891	-0.00000891
		Y	-0.06059823	-0.01626940	-0.00421946	0.00000407	-0.00006291
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
2	C	X	0.00908652	0.10731581	-0.00663853	0.00002263	0.00205194
		Y	0.07060025	0.08555829	0.00892785	-0.00000124	-0.00210934
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	0.00000000
3	C	X	0.05242252	-0.08865625	-0.01029003	-0.00007679	-0.00004385
		Y	-0.12154122	-0.04668525	-0.03684293	0.00012539	0.00034120
		Z	-0.00000000	0.00000000	-0.00000000	-0.00000000	0.00000000
4	C	X	-0.09572135	0.13717413	-0.00643133	0.00001868	-0.00027599
		Y	0.07068711	0.00776599	0.01279232	-0.00004289	0.00000338
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
5	C	X	0.01952830	-0.11145106	0.00150033	-0.00001803	0.00011697
		Y	-0.08042200	-0.07287766	-0.00750655	0.00000828	0.00011263
		Z	-0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
6	C	X	-0.04752707	0.04055949	-0.00396261	0.00000416	0.00006915
		Y	0.14320570	0.03073100	0.00929841	-0.00000402	-0.00006460
		Z	0.00000000	-0.00000000	-0.00000000	-0.00000000	-0.00000000
7	C	X	-0.02246489	0.01259194	0.07219104	0.00007677	0.00106706
		Y	-0.01651755	-0.00465053	0.21604764	-0.00069299	0.00036710
		Z	-0.00000000	-0.00000000	0.00000000	0.00000000	-0.00000000
8	C	X	-0.00038987	-0.00401154	-0.00870995	-0.00019626	0.01369238
		Y	-0.00277165	-0.00054183	-0.00834971	0.00066009	0.06561998
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	-0.00000000
9	C	X	0.00082648	0.00005433	-0.00102786	-0.00427802	-0.00183447
		Y	-0.00022793	0.00010684	0.00471863	0.00033002	-0.00463720
		Z	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
10	O	X	0.01064440	0.00335266	-0.04061563	0.00008811	-0.00018090
		Y	0.01954405	0.00914940	-0.14023224	0.00032565	-0.00060763
		Z	0.00000000	0.00000000	-0.00000000	0.00000000	-0.00000000
11	C	X	-0.00001702	-0.00007640	0.00130951	-0.00110712	0.00000367
		Y	0.00008689	-0.00018584	-0.00274191	-0.00485402	-0.00044154
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
12	N	X	-0.00002633	-0.00003637	-0.00060817	0.17054127	0.00017770
		Y	0.00006462	0.00001094	0.00095852	0.09109132	-0.00020402

13	N	Z	0.00000000	-0.00000000	0.00000000	-0.00000000	0.00000000
		X	-0.00004857	0.00004141	-0.000081524	-0.16227345	0.000000035
		Y	-0.00005392	0.00002574	-0.000073572	-0.08642307	0.000006813
14	H	Z	0.00000000	-0.00000000	0.00000000	0.00000000	-0.00000000
		X	-0.11294511	-0.16419916	-0.01246850	0.00011602	-0.02157889
		Y	-0.02916487	-0.13881637	0.00777710	-0.00002967	0.02431495
15	H	Z	0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
		X	0.16436902	-0.16028025	0.01500921	0.00001286	0.00034850
		Y	0.00445024	0.09848126	0.01241492	-0.00010822	-0.00020587
16	H	Z	-0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
		X	0.10997790	0.05953181	0.01545747	-0.00001368	-0.00010421
		Y	-0.00476820	0.12284171	0.00672476	-0.00005660	-0.00009543
17	H	Z	-0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
		X	0.08119173	0.05987620	0.00268301	0.00004561	-0.00071969
		Y	-0.21982996	-0.00223379	-0.00835736	0.00002825	-0.00041145
18	H	Z	-0.00000000	0.00000000	-0.00000000	-0.00000000	-0.00000000
		X	-0.00110876	0.01290616	0.04223768	0.00123254	-0.08099177
		Y	0.01410445	0.00369891	-0.04286427	0.00000043	-0.38517447
19	H	Z	-0.01221815	-0.00562511	0.01948686	0.00046303	-0.55841855
		X	-0.00110876	0.01290616	0.04223768	0.00123254	-0.08099177
		Y	0.01410445	0.00369891	-0.04286427	0.00000043	-0.38517447
20	H	Z	0.01221815	0.00562511	-0.01948686	-0.00046303	0.55841855
		X	0.00024100	-0.00093856	-0.01062477	0.00464969	0.00233822
		Y	0.00048234	0.00066973	0.00883149	-0.00070996	0.02322634
21	H	Z	-0.00057481	-0.00021222	0.00203858	0.00017141	0.03568935
		X	0.00024100	-0.00093856	-0.01062477	0.00464969	0.00233822
		Y	0.00048234	0.00066973	0.00883149	-0.00070996	0.02322634
22	H	Z	0.00057481	0.00021222	-0.00203858	-0.00017141	-0.03568935
		X	-0.00005693	-0.00006420	0.00293844	-0.03080948	0.00146487
		Y	0.00026046	0.00028317	-0.00362113	-0.00768154	0.00396948
23	H	Z	-0.00005168	-0.00040218	0.00047106	0.01723881	0.00609920
		X	-0.00005693	-0.00006420	0.00293844	-0.03080948	0.00146487
		Y	0.00026046	0.00028317	-0.00362113	-0.00768154	0.00396948
		Z	0.00005168	0.00040218	-0.00047106	-0.01723881	-0.00609920

TRANS. SAYVETZ	X	0.00005043	-0.00003330	-0.00006168	0.00004899	-0.00017479
	Y	0.00005257	-0.00003442	-0.00003497	-0.00010204	0.00002380
	Z	0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
	TOTAL	0.00007284	0.00004790	0.00007090	0.00011319	0.00017640

ROT. SAYVETZ	X	-0.00000000	0.00000000	-0.00000000	0.00000000	-0.00000000
	Y	-0.00000000	0.00000000	-0.00000000	-0.00000000	0.00000000
	Z	-0.00072814	0.00008897	-0.00006448	-0.00042756	-0.00051843
	TOTAL	0.00072814	0.00008897	0.00006448	0.00042756	0.00051843

	61	62	63	64	65
FREQUENCY:	3118.12	3119.01	3124.34	3174.45	3195.81
SYMMETRY:	A'	A''	A'	A''	A'
REDUCED MASS:	1.06002	1.10386	1.05728	1.11014	1.09052

1	N	X	0.00000657	0.00000000	0.00000174	0.00000000	0.00001029
		Y	0.00000900	0.00000000	-0.00000865	0.00000000	0.00027765
		Z	-0.00000000	0.00009265	-0.00000000	0.00001334	-0.00000000
2	C	X	-0.00017281	-0.00000000	0.00028659	-0.00000000	0.05232192
		Y	0.00017286	0.00000000	-0.00030224	0.00000000	-0.06419809
		Z	-0.00000000	0.00011693	-0.00000000	0.00001606	-0.00000000
3	C	X	0.00003382	0.00000000	0.00000006	0.00000000	0.00147055
		Y	0.00007588	0.00000000	-0.00010163	0.00000000	0.00344915
		Z	-0.00000000	-0.00000203	0.00000000	-0.00005418	-0.00000000
4	C	X	0.00000890	-0.00000000	-0.00002173	0.00000000	-0.00072096

		Y	0.00003264	-0.00000000	-0.00003976	0.00000000	0.00035691
		Z	-0.00000000	0.00001806	-0.00000000	0.00000765	-0.00000000
5	C	X	0.00001983	0.00000000	-0.00000334	-0.00000000	0.00041720
		Y	-0.00000884	-0.00000000	0.00000727	0.00000000	-0.00045435
		Z	0.00000000	-0.00001069	0.00000000	-0.00000378	0.00000000
6	C	X	-0.00002497	-0.00000000	0.00004699	0.00000000	0.00383117
		Y	-0.00000963	-0.00000000	0.00001378	0.00000000	0.00221516
		Z	0.00000000	-0.00002178	0.00000000	-0.00000245	0.00000000
7	C	X	-0.00035192	-0.00000000	0.00019706	-0.00000000	0.00054246
		Y	-0.00058707	-0.00000000	0.00085675	-0.00000000	-0.00068918
		Z	0.00000000	-0.00084309	-0.00000000	-0.00006731	-0.00000000
8	C	X	-0.00020079	-0.00000000	0.00056917	-0.00000000	-0.00019425
		Y	-0.00197086	-0.00000000	0.00319111	-0.00000000	-0.00195307
		Z	0.00000000	-0.08808290	0.00000000	-0.01146763	-0.00000000
9	C	X	-0.00644788	-0.00000000	0.00895162	-0.00000000	-0.00010278
		Y	-0.04203970	-0.00000000	0.05087115	-0.00000000	-0.00007974
		Z	-0.00000000	0.01244374	-0.00000000	-0.08176039	-0.00000000
10	O	X	0.00038059	0.00000000	-0.00042424	0.00000000	-0.00030599
		Y	0.00020959	0.00000000	-0.00036881	0.00000000	-0.00002901
		Z	0.00000000	-0.00017584	0.00000000	0.00016112	0.00000000
11	C	X	-0.00357734	-0.00000000	-0.00198740	0.00000000	-0.00005037
		Y	0.05132926	0.00000000	0.03948306	0.00000000	-0.00002576
		Z	-0.00000000	-0.00080546	-0.00000000	0.03959494	-0.00000000
12	N	X	0.00323747	0.00000000	0.00228511	0.00000000	0.00000045
		Y	0.00081227	0.00000000	0.00115121	0.00000000	0.00000861
		Z	-0.00000000	0.00011806	0.00000000	-0.00026537	-0.00000000
13	N	X	-0.00193686	-0.00000000	-0.00179428	-0.00000000	-0.00000733
		Y	-0.00071348	-0.00000000	-0.00076221	-0.00000000	-0.00000499
		Z	0.00000000	-0.00002517	-0.00000000	0.00016563	-0.00000000
14	H	X	0.00204442	0.00000000	-0.00339032	0.00000000	-0.62867016
		Y	-0.00228585	-0.00000000	0.00373687	-0.00000000	0.71423507
		Z	0.00000000	-0.00056292	0.00000000	-0.00004492	0.00000000
15	H	X	-0.00022577	-0.00000000	0.00025870	-0.00000000	0.00085753
		Y	-0.00039714	-0.00000000	0.00066417	-0.00000000	-0.00155639
		Z	-0.00000000	0.00007466	-0.00000000	0.00001494	-0.00000000
16	H	X	-0.00026669	-0.00000000	0.00020464	0.00000000	-0.00407965
		Y	0.00023487	0.00000000	-0.00015748	-0.00000000	0.00352980
		Z	-0.00000000	0.00001176	-0.00000000	-0.00000072	0.00000000
17	H	X	0.00031437	0.00000000	-0.00057770	-0.00000000	-0.05644837
		Y	0.00013232	0.00000000	-0.00023496	-0.00000000	-0.01909970
		Z	0.00000000	-0.00016009	0.00000000	-0.00002943	0.00000000
18	H	X	0.00271336	0.07946447	-0.00666169	0.01274695	0.00340747
		Y	0.01236203	0.39276193	-0.02159114	0.04939872	0.01330691
		Z	0.01710182	0.52927920	-0.03087027	0.06765848	0.01950368
19	H	X	0.00271336	-0.07946447	-0.00666169	-0.01274695	0.00340747
		Y	0.01236203	-0.39276193	-0.02159114	-0.04939872	0.01330691
		Z	-0.01710182	0.52927920	0.03087027	0.06765848	-0.01950368
20	H	X	0.04113036	-0.00464394	-0.04715776	0.05982154	0.00087692
		Y	0.23898309	-0.05309082	-0.30242567	0.35031605	0.00159890
		Z	0.35081138	-0.07357116	-0.43809951	0.48362125	0.00223461
21	H	X	0.04113036	0.00464394	-0.04715776	-0.05982154	0.00087692
		Y	0.23898309	0.05309082	-0.30242567	-0.35031605	0.00159890
		Z	-0.35081138	-0.07357116	0.43809951	0.48362125	-0.00223461
22	H	X	0.00694545	-0.00108701	0.00759725	0.00200013	-0.00012940
		Y	-0.29426910	0.00344329	-0.23716805	-0.15805118	0.00018793
		Z	-0.44774841	0.00425896	-0.35691406	-0.23205458	0.00023987
23	H	X	0.00694545	0.00108701	0.00759725	-0.00200013	-0.00012940
		Y	-0.29426910	-0.00344329	-0.23716805	0.15805118	0.00018793
		Z	0.44774841	0.00425896	0.35691406	-0.23205458	-0.00023987

TRANS. SAYVETZ	X	0.00008830	0.00000000	-0.00011991	-0.00000000	-0.00001923
	Y	-0.00005726	-0.00000000	0.00006860	0.00000000	-0.00008558
	Z	0.00000000	0.00002993	0.00000000	-0.00009210	-0.00000000
	TOTAL	0.00010524	0.00002993	0.00013814	0.00009210	0.00008771

ROT. SAYVETZ	X	0.00000000	-0.00002723	-0.00000000	0.00009215	-0.00000000
	Y	-0.00000000	-0.00004439	0.00000000	0.00017677	0.00000000
	Z	-0.00017009	-0.00000000	-0.00028621	0.00000000	0.00048176
	TOTAL	0.00017009	0.00005208	0.00028621	0.00019934	0.00048176

		66	67	68	69
FREQUENCY:		3196.00	3216.25	3234.27	3246.64
SYMMETRY:		A''	A'	A'	A'
REDUCED MASS:		1.11148	1.09107	1.09212	1.09847

1	N	X	-0.00000000	0.00068684	0.00043316	-0.00043441
		Y	-0.00000000	0.00002618	-0.00011520	0.00014152
		Z	0.00000374	0.00000000	0.00000000	0.00000000
2	C	X	-0.00000000	0.00381260	0.00197122	-0.00079925
		Y	0.00000000	-0.00367039	-0.00143296	0.00134589
		Z	0.00000633	0.00000000	-0.00000000	-0.00000000
3	C	X	-0.00000000	0.00032115	-0.00121202	-0.00184376
		Y	-0.00000000	0.00011025	0.00127889	0.00178028
		Z	-0.00003764	0.00000000	0.00000000	0.00000000
4	C	X	0.00000000	0.00123482	-0.01255838	-0.01947600
		Y	0.00000000	0.00822058	-0.05359000	-0.06027149
		Z	0.00000001	0.00000000	-0.00000000	-0.00000000
5	C	X	-0.00000000	0.02347901	-0.03837206	0.04323339
		Y	0.00000000	-0.01760902	0.04055120	-0.03687138
		Z	-0.00000071	0.00000000	-0.00000000	-0.00000000
6	C	X	-0.00000000	-0.07320747	-0.02697542	0.01412504
		Y	-0.00000000	-0.02495470	-0.01173639	0.00754967
		Z	-0.00000072	-0.00000000	-0.00000000	0.00000000
7	C	X	-0.00000000	0.00001242	0.00002080	-0.00009676
		Y	0.00000000	0.00002572	-0.00073949	-0.00084243
		Z	0.00008330	-0.00000000	-0.00000000	-0.00000000
8	C	X	-0.00000000	-0.00002695	0.00007024	0.00011408
		Y	-0.00000000	-0.00006439	0.00000964	0.00005590
		Z	-0.00430338	0.00000000	-0.00000000	0.00000000
9	C	X	-0.00000000	0.00000322	0.00000124	0.00001034
		Y	-0.00000000	0.00005195	-0.00006203	-0.00005852
		Z	-0.03810982	-0.00000000	0.00000000	-0.00000000
10	O	X	0.00000000	0.00000529	-0.00024217	-0.00016886
		Y	0.00000000	-0.00006091	0.00031954	0.00038337
		Z	0.00004957	0.00000000	0.00000000	-0.00000000
11	C	X	0.00000000	0.00000607	-0.00000125	-0.00001467
		Y	-0.00000000	0.00000074	0.00001328	0.00000149
		Z	-0.08374084	-0.00000000	0.00000000	0.00000000
12	N	X	0.00000000	-0.00000808	0.00000148	0.00002163
		Y	0.00000000	-0.00000033	-0.00000426	-0.00000051
		Z	0.00078515	-0.00000000	0.00000000	-0.00000000
13	N	X	-0.00000000	0.00000345	0.00000390	-0.00000711
		Y	-0.00000000	0.00000064	0.00000352	0.00000007
		Z	-0.00045678	-0.00000000	-0.00000000	0.00000000
14	H	X	0.00000000	-0.03404099	-0.01611422	0.00794331
		Y	-0.00000000	0.03868695	0.01783223	-0.00958050
		Z	0.00001677	0.00000000	0.00000000	0.00000000
15	H	X	-0.00000000	-0.02608052	0.16815975	0.19033907
		Y	-0.00000000	-0.09689261	0.61420910	0.67497018
		Z	0.00000833	0.00000000	0.00000000	0.00000000

16	H	X	0.00000000	-0.25800886	0.46202973	-0.45590090
		Y	-0.00000000	0.23268658	-0.43342988	0.42016716
		Z	0.00000466	0.00000000	-0.00000000	-0.00000000
17	H	X	0.00000000	0.83636798	0.30094626	-0.15335253
		Y	0.00000000	0.27683860	0.10303761	-0.05454547
		Z	-0.00000838	-0.00000000	0.00000000	-0.00000000
18	H	X	0.00656624	0.00019143	-0.00002793	-0.00011801
		Y	0.01974197	0.00044232	0.00031625	-0.00006342
		Z	0.02639357	0.00058930	0.00034297	-0.00013888
19	H	X	-0.00656624	0.00019143	-0.00002793	-0.00011801
		Y	-0.01974197	0.00044232	0.00031625	-0.00006342
		Z	0.02639357	-0.00058930	-0.00034297	0.00013888
20	H	X	0.02419691	-0.00002362	0.00010163	0.00004766
		Y	0.16451275	-0.00029646	0.00024732	0.00015829
		Z	0.22504051	-0.00033073	0.00040691	0.00019914
21	H	X	-0.02419691	-0.00002362	0.00010163	0.00004766
		Y	-0.16451275	-0.00029646	0.00024732	0.00015829
		Z	0.22504051	0.00033073	-0.00040691	-0.00019914
22	H	X	-0.01681666	0.00000352	-0.00001454	-0.00001261
		Y	0.34540899	-0.00002228	-0.00000847	0.00007889
		Z	0.49658235	-0.00002920	-0.00002823	0.00009228
23	H	X	0.01681666	0.00000352	-0.00001454	-0.00001261
		Y	-0.34540899	-0.00002228	-0.00000847	0.00007889
		Z	0.49658235	0.00002920	0.00002823	-0.00009228

TRANS. SAYVETZ	X	-0.00000000	-0.00010582	-0.00009922	0.00009413
	Y	-0.00000000	-0.00017424	0.00012149	-0.00019027
	Z	-0.00003734	0.00000000	-0.00000000	-0.00000000
	TOTAL	0.00003734	0.00020386	0.00015686	0.00021228

ROT. SAYVETZ	X	-0.00008425	0.00000000	0.00000000	-0.00000000
	Y	0.00001140	0.00000000	-0.00000000	-0.00000000
	Z	-0.00000000	-0.00034291	-0.00043946	0.00043204
	TOTAL	0.00008501	0.00034291	0.00043946	0.00043204

REFERENCE ON SAYVETZ CONDITIONS - A. SAYVETZ, J.CHEM.PHYS., 7, 383-389(1939).

NOTE - THE MODES J,K ARE ORTHONORMALIZED ACCORDING TO

$$\text{SUM ON I } M(I) * (X(I,J)*X(I,K) + Y(I,J)*Y(I,K) + Z(I,J)*Z(I,K)) = \text{DELTA}(J,K)$$

Vibrational Analysis, NNKDI CCTT Conformer, CCSD/6-31G*

 NORMAL COORDINATE ANALYSIS IN THE HARMONIC APPROXIMATION

ATOMIC WEIGHTS (AMU)

1	N	14.00307
2	C	12.00000
3	C	12.00000
4	C	12.00000
5	C	12.00000
6	C	12.00000
7	C	12.00000
8	C	12.00000
9	C	12.00000
10	O	15.99491
11	C	12.00000
12	N	14.00307
13	N	14.00307
14	H	1.00782
15	H	1.00782
16	H	1.00782
17	H	1.00782
18	H	1.00782
19	H	1.00782
20	H	1.00782
21	H	1.00782
22	H	1.00782
23	H	1.00782

* * * WARNING, MODE 1 HAS BEEN CHOSEN AS A VIBRATION
 WHILE MODE 7 IS ASSUMED TO BE A TRANSLATION/ROTATION.
 PLEASE VERIFY THE PROGRAM'S DECISION MANUALLY!

MODE(S) 1 TO 1 TREATED AS IMAGINARY.

MODES 2 TO 7 ARE TAKEN AS ROTATIONS AND TRANSLATIONS.

ANALYZING SYMMETRY OF NORMAL MODES...

--- SYMMETRY FOR NORMAL MODES ---

INCLUDING TRANSLATION AND ROTATION

43*A' 26*A''

EXCLUDING TRANSLATION AND ROTATION (SAYVETZ < 0.01)

36*A' 7*A''

FREQUENCIES IN CM**-1, IR INTENSITIES IN DEBYE**2/AMU-ANGSTROM**2,
 REDUCED MASSES IN AMU.

	1	2	3	4	5
FREQUENCY:	34.30 I	20.45	14.08	10.75	10.20
SYMMETRY:	A''	A''	A'	A'	A''
REDUCED MASS:	3.92434	8.21201	7.99479	7.11362	7.15858

1	N	X	0.00000000	-0.00000000	0.05373672	-0.02438708	0.00000000
		Y	0.00000000	-0.00000000	0.02283567	-0.06983298	-0.00000000
		Z	-0.04632956	0.03372719	0.00000000	0.00000000	-0.08943774

2	C	X	0.00000000	-0.00000000	0.05583154	-0.01913021	0.00000000
		Y	-0.00000000	-0.00000000	0.03302170	-0.04421264	-0.00000000
		Z	-0.05709555	0.06686321	0.00000000	0.00000000	-0.07261908
3	C	X	0.00000000	-0.00000000	0.04812231	-0.03843219	0.00000000
		Y	-0.00000000	-0.00000000	0.04081241	-0.02471829	-0.00000000
		Z	0.03445451	0.07024314	0.00000000	0.00000000	-0.04746784
4	C	X	0.00000000	-0.00000000	0.03768074	-0.06469188	0.00000000
		Y	-0.00000000	-0.00000000	0.03771001	-0.03248156	-0.00000000
		Z	0.14406879	0.03929836	0.00000000	0.00000000	-0.03957405
5	C	X	0.00000000	-0.00000000	0.03540802	-0.07041544	0.00000000
		Y	0.00000000	-0.00000000	0.02712728	-0.05910744	-0.00000000
		Z	0.15557418	0.00615700	0.00000000	0.00000000	-0.05806738
6	C	X	0.00000000	-0.00000000	0.04367097	-0.04968357	0.00000000
		Y	0.00000000	-0.00000000	0.02004173	-0.07688514	-0.00000000
		Z	0.05862827	0.00386767	0.00000000	0.00000000	-0.08260396
7	C	X	0.00000000	-0.00000000	0.05151158	-0.02992591	0.00000000
		Y	-0.00000000	-0.00000000	0.05184105	0.00285379	-0.00000000
		Z	0.00968335	0.10329487	0.00000000	0.00000000	-0.03035878
8	C	X	0.00000000	-0.00000000	0.04340711	-0.05035249	0.00000000
		Y	-0.00000000	-0.00000000	0.06034525	0.02411921	-0.00000000
		Z	0.06085249	0.07439280	0.00000000	-0.00000000	0.02758045
9	C	X	0.00000000	-0.00000000	0.04868811	-0.03699188	0.00000000
		Y	-0.00000000	-0.00000000	0.07052833	0.04986034	-0.00000000
		Z	0.00611540	0.09473548	0.00000000	-0.00000000	0.03689871
10	O	X	0.00000000	-0.00000000	0.06055284	-0.00715011	0.00000000
		Y	-0.00000000	-0.00000000	0.05432313	0.00911209	-0.00000000
		Z	-0.05412748	0.14820033	0.00000000	0.00000000	-0.05799539
11	C	X	0.00000000	-0.00000000	0.04113212	-0.05652164	0.00000000
		Y	-0.00000000	-0.00000000	0.07842118	0.07022083	0.00000000
		Z	0.05847929	0.05274043	-0.00000000	-0.00000000	0.10733490
12	N	X	0.00000000	-0.00000000	0.04601945	-0.04375313	0.00000000
		Y	-0.00000000	-0.00000000	0.08780450	0.09457723	0.00000000
		Z	0.00965008	0.06046904	-0.00000000	-0.00000000	0.11251476
13	N	X	0.00000000	-0.00000000	0.04981045	-0.03374787	0.00000000
		Y	-0.00000000	-0.00000000	0.09432554	0.11176499	0.00000000
		Z	-0.02713991	0.06653323	-0.00000000	-0.00000000	0.11377713
14	H	X	0.00000000	-0.00000000	0.06405417	0.00138597	0.00000000
		Y	-0.00000000	-0.00000000	0.03523011	-0.03867449	-0.00000000
		Z	-0.14387297	0.09117933	0.00000000	0.00000000	-0.07830254
15	H	X	0.00000000	-0.00000000	0.03138902	-0.08058188	0.00000000
		Y	-0.00000000	-0.00000000	0.04332425	-0.01830855	-0.00000000
		Z	0.22298894	0.04175815	0.00000000	0.00000000	-0.02007684
16	H	X	0.00000000	-0.00000000	0.02744514	-0.09054498	-0.00000000
		Y	0.00000000	-0.00000000	0.02437607	-0.06608564	-0.00000000
		Z	0.24048661	-0.01791030	0.00000000	0.00000000	-0.05390279
17	H	X	0.00000000	-0.00000000	0.04217658	-0.05345351	0.00000000
		Y	0.00000000	-0.00000000	0.01169687	-0.09785635	-0.00000000
		Z	0.06581177	-0.02340959	0.00000000	0.00000000	-0.09724554
18	H	X	-0.00944499	0.00020941	0.03855347	-0.06267756	0.02108302
		Y	0.05185269	-0.02490332	0.05951644	0.02191259	0.02755377
		Z	0.09986854	0.05628002	0.00001932	0.00001345	0.04494082
19	H	X	0.00944499	-0.00020941	0.03855347	-0.06267756	-0.02108302
		Y	-0.05185269	0.02490332	0.05951644	0.02191259	-0.02755377
		Z	0.09986854	0.05628002	-0.00001932	-0.00001345	0.04494082
20	H	X	0.00799349	0.00364634	0.05338613	-0.02502258	-0.02369899
		Y	-0.05245784	0.03097945	0.07116345	0.05145986	-0.03399727
		Z	-0.03272741	0.11682373	0.00000115	-0.00001167	0.01452610
21	H	X	-0.00799349	-0.00364634	0.05338613	-0.02502258	0.02369899
		Y	0.05245784	-0.03097945	0.07116345	0.05145986	0.03399727
		Z	-0.03272741	0.11682373	-0.00000115	0.00001167	0.01452610

22	H	X	-0.00616834	-0.00874824	0.03682992	-0.06784801	0.02278815
		Y	0.05152745	-0.02744769	0.07873453	0.07106734	0.03690084
		Z	0.09371485	0.03334210	-0.00000839	-0.00000360	0.13399657
23	H	X	0.00616834	0.00874824	0.03682992	-0.06784801	-0.02278815
		Y	-0.05152745	0.02744769	0.07873453	0.07106734	-0.03690084
		Z	0.09371485	0.03334210	0.00000839	0.00000360	0.13399657
TRANS. SAYVETZ		X	0.00000000	-0.00000000	8.35426976	-7.07332533	0.00000000
		Y	-0.00000000	-0.00000000	9.31486063	1.04157115	-0.00000000
		Z	4.60235688	11.26872944	0.00000000	0.00000000	-0.77930294
		TOTAL	4.60235688	11.26872944	12.51241191	7.14960151	0.77930294
ROT. SAYVETZ		X	-21.75530282	9.26670276	0.00000000	0.00000000	-5.97618142
		Y	-15.59286694	16.59355968	-0.00000000	-0.00000000	75.37323220
		Z	0.00000000	-0.00000000	-27.82717059	-70.41603523	-0.00000000
		TOTAL	26.76622312	19.00573605	27.82717059	70.41603523	75.60978030

		6	7	8	9	10
FREQUENCY:		9.89	22.97	37.39	67.09	73.07
SYMMETRY:		A'	A''	A''	A'	A''
REDUCED MASS:		7.98145	7.75624	3.24306	7.32031	2.72578

1	N	X	-0.05023681	-0.00000000	-0.00000000	-0.02978928	0.00000000
		Y	0.09087974	0.00000000	0.00000000	0.05362367	-0.00000000
		Z	-0.00000000	0.14523493	-0.04464627	0.00000000	0.01018963
2	C	X	-0.05279193	-0.00000000	-0.00000000	-0.03900158	0.00000000
		Y	0.07846301	0.00000000	0.00000000	0.00626220	0.00000000
		Z	-0.00000000	0.08509073	-0.05180643	-0.00000000	0.00482214
3	C	X	-0.04343344	-0.00000000	-0.00000000	-0.00442323	-0.00000000
		Y	0.06901510	0.00000000	0.00000000	-0.02920354	0.00000000
		Z	-0.00000000	0.00239121	-0.00672221	-0.00000000	-0.00535100
4	C	X	-0.03068646	-0.00000000	-0.00000000	0.04134128	-0.00000000
		Y	0.07278743	0.00000000	0.00000000	-0.01517490	0.00000000
		Z	-0.00000000	-0.02378868	0.04950008	-0.00000000	-0.01363040
5	C	X	-0.02792059	-0.00000000	-0.00000000	0.05247245	-0.00000000
		Y	0.08567942	0.00000000	0.00000000	0.03398925	-0.00000000
		Z	-0.00000000	0.03401027	0.06125941	-0.00000000	-0.01377335
6	C	X	-0.03797395	-0.00000000	-0.00000000	0.01525458	-0.00000000
		Y	0.09429459	0.00000000	0.00000000	0.06607473	-0.00000000
		Z	-0.00000000	0.11922626	0.01358651	0.00000000	-0.00077612
7	C	X	-0.04757478	-0.00000000	-0.00000000	-0.01535537	0.00000000
		Y	0.05558807	0.00000000	0.00000000	-0.06742139	0.00000000
		Z	-0.00000000	-0.04539914	-0.01402735	-0.00000000	-0.01641826
8	C	X	-0.03746076	-0.00000000	-0.00000000	-0.00463167	-0.00000000
		Y	0.04512077	0.00000000	0.00000000	-0.08088356	0.00000000
		Z	0.00000000	-0.02219686	-0.08028710	0.00000000	0.08252532
9	C	X	-0.04424019	-0.00000000	-0.00000000	0.00188983	-0.00000000
		Y	0.03205308	0.00000000	0.00000000	-0.06767492	0.00000000
		Z	0.00000000	-0.01040722	-0.00093975	0.00000000	0.17452318
10	O	X	-0.05874699	-0.00000000	-0.00000000	-0.03692742	0.00000000
		Y	0.05250979	0.00000000	0.00000000	-0.07283404	0.00000000
		Z	-0.00000000	-0.08954449	0.02283739	-0.00000000	-0.10324434
11	C	X	-0.03395679	-0.00000000	-0.00000000	-0.03835056	0.00000000
		Y	0.02131195	0.00000000	0.00000000	-0.02520631	0.00000000
		Z	0.00000000	0.03850148	-0.12882800	-0.00000000	-0.04519152
12	N	X	-0.04085467	-0.00000000	-0.00000000	0.00490266	-0.00000000
		Y	0.00808541	0.00000000	0.00000000	0.06010387	-0.00000000
		Z	0.00000000	0.06943781	0.02356795	-0.00000000	-0.03628109
13	N	X	-0.04643817	-0.00000000	-0.00000000	0.05611671	-0.00000000
		Y	-0.00150792	0.00000000	0.00000000	0.14821948	-0.00000000

		Z	0.00000000	0.09313753	0.15005940	-0.00000000	-0.03073055
14	H	X	-0.06279769	-0.00000000	-0.00000000	-0.07676529	0.00000000
		Y	0.07576357	0.00000000	0.00000000	-0.00410212	0.00000000
		Z	-0.00000000	0.10585850	-0.09739174	-0.00000000	0.01162558
15	H	X	-0.02296472	-0.00000000	-0.00000000	0.06834375	-0.00000000
		Y	0.06591609	0.00000000	0.00000000	-0.03969544	0.00000000
		Z	-0.00000000	-0.09305862	0.08678117	-0.00000000	-0.02499530
16	H	X	-0.01818343	-0.00000000	-0.00000000	0.08941978	-0.00000000
		Y	0.08905634	0.00000000	0.00000000	0.04679182	-0.00000000
		Z	-0.00000000	0.01371577	0.10808063	-0.00000000	-0.02376071
17	H	X	-0.03615679	-0.00000000	-0.00000000	0.02197451	-0.00000000
		Y	0.10443436	0.00000000	0.00000000	0.10347445	-0.00000000
		Z	-0.00000000	0.16867905	0.02214878	0.00000000	0.00107552
18	H	X	-0.03134482	0.01236507	0.00818258	-0.00406546	0.06000065
		Y	0.04625557	0.00800753	-0.07245156	-0.07999575	0.00167647
		Z	0.00001393	-0.01810985	-0.13477391	0.00046463	0.07434368
19	H	X	-0.03134482	-0.01236507	-0.00818258	-0.00406546	-0.06000065
		Y	0.04625557	-0.00800753	0.07245156	-0.07999575	-0.00167647
		Z	-0.00001393	-0.01810985	-0.13477391	-0.00046463	0.07434368
20	H	X	-0.05044722	-0.01922585	0.00075574	0.01661702	0.02963186
		Y	0.03120576	-0.01951364	0.10678661	-0.06372109	0.15251176
		Z	-0.00000935	-0.02255833	0.07696398	0.00148184	0.28318687
21	H	X	-0.05044722	0.01922585	-0.00075574	0.01661702	-0.02963186
		Y	0.03120576	0.01951364	-0.10678661	-0.06372109	-0.15251176
		Z	0.00000935	-0.02255833	0.07696398	-0.00148184	0.28318687
22	H	X	-0.02787113	0.02741346	0.02711533	-0.07254933	-0.06197973
		Y	0.02083438	0.01430113	-0.13884508	-0.02165424	-0.13642886
		Z	-0.00001130	0.04982713	-0.22313243	0.00053946	-0.14261025
23	H	X	-0.02787113	-0.02741346	-0.02711533	-0.07254933	0.06197973
		Y	0.02083438	-0.01430113	0.13884508	-0.02165424	0.13642886
		Z	0.00001130	0.04982713	-0.22313243	-0.00053946	-0.14261025

TRANS. SAYVETZ		X	-7.50019839	-0.00000000	-0.00000000	-0.06014091	-0.00000000
		Y	9.39227362	0.00000000	0.00000000	0.12619862	0.00000000
		Z	-0.00000000	5.22235272	-0.17349178	-0.00000000	-0.04943936
		TOTAL	12.01947501	5.22235272	0.17349178	0.13979635	0.04943936

ROT. SAYVETZ		X	-0.00000000	-1.66298292	1.91801007	-0.00000000	-1.28247884
		Y	0.00000000	-10.47431546	10.47494693	-0.00000000	-0.66243054
		Z	35.42079439	-0.00000000	-0.00000000	-1.04949032	-0.00000000
		TOTAL	35.42079439	10.60550784	10.64909742	1.04949032	1.44345634

		11	12	13	14	15
FREQUENCY:		115.65	144.31	164.91	255.09	281.99
SYMMETRY:		A''	A'	A''	A'	A'
REDUCED MASS:		2.74971	7.31381	3.53189	5.64632	6.52455

1	N	X	-0.00000000	-0.00534648	-0.00000000	0.08776099	-0.01087389
		Y	0.00000000	-0.02687019	0.00000000	-0.02913917	-0.00236155
		Z	-0.00101843	0.00000000	-0.01315605	-0.00000000	0.00000000
2	C	X	-0.00000000	0.00344562	-0.00000000	0.09426325	-0.00411049
		Y	0.00000000	0.01937819	-0.00000000	0.03292782	0.02790770
		Z	0.05426537	0.00000000	0.10167355	-0.00000000	0.00000000
3	C	X	-0.00000000	-0.02357340	-0.00000000	0.04270620	-0.00655964
		Y	-0.00000000	0.04935888	-0.00000000	0.07252079	0.03491568
		Z	0.05978620	0.00000000	0.11921631	0.00000000	-0.00000000
4	C	X	0.00000000	-0.06708456	0.00000000	0.01368169	-0.04092359
		Y	-0.00000000	0.03669370	-0.00000000	0.06466611	0.02918851
		Z	0.02550252	0.00000000	0.09758715	0.00000000	-0.00000000
5	C	X	0.00000000	-0.08009143	0.00000000	-0.00033566	-0.05329358

		Y	0.00000000	-0.01043804	0.00000000	-0.00001017	0.00036988
		Z	-0.03609123	0.00000000	-0.01814304	0.00000000	0.00000000
6	C	X	0.00000000	-0.04753844	-0.00000000	0.04509971	-0.03964350
		Y	0.00000000	-0.03866935	0.00000000	-0.04272327	-0.01149291
		Z	-0.05701084	-0.00000000	-0.10436880	-0.00000000	0.00000000
7	C	X	-0.00000000	-0.01812338	-0.00000000	0.00982002	-0.00325239
		Y	-0.00000000	0.04895184	-0.00000000	0.02884428	-0.02827801
		Z	0.03875401	0.00000000	0.00476565	0.00000000	-0.00000000
8	C	X	-0.00000000	0.02371472	-0.00000000	0.02996086	0.05651370
		Y	-0.00000000	0.00916542	-0.00000000	-0.03515655	-0.07613027
		Z	0.12533478	0.00000000	-0.10094766	-0.00000000	-0.00000000
9	C	X	-0.00000000	0.00444331	-0.00000000	-0.01787496	0.10143520
		Y	0.00000000	-0.05043473	-0.00000000	-0.09422664	-0.01198539
		Z	-0.09027780	-0.00000000	0.00800498	-0.00000000	0.00000000
10	O	X	-0.00000000	-0.04533133	-0.00000000	-0.04222698	-0.08817176
		Y	-0.00000000	0.04125407	-0.00000000	0.01325289	-0.05113643
		Z	-0.05703005	-0.00000000	-0.07548336	0.00000000	0.00000000
11	C	X	-0.00000000	0.03789217	-0.00000000	-0.07783759	0.05125231
		Y	0.00000000	-0.08498768	0.00000000	-0.04944809	0.06976524
		Z	-0.09361360	-0.00000000	0.02909482	-0.00000000	0.00000000
12	N	X	-0.00000000	0.06532453	-0.00000000	-0.07484355	0.07054269
		Y	0.00000000	-0.05611442	0.00000000	0.02987356	0.10228932
		Z	-0.02077772	-0.00000000	0.01386677	0.00000000	-0.00000000
13	N	X	-0.00000000	0.14059873	-0.00000000	-0.07970297	-0.03097668
		Y	-0.00000000	0.07237258	0.00000000	0.02472974	-0.07339010
		Z	0.07604902	0.00000000	-0.01827870	0.00000000	-0.00000000
14	H	X	-0.00000000	0.03742955	-0.00000000	0.15012069	0.01016068
		Y	0.00000000	0.02906973	-0.00000000	0.04929920	0.03245153
		Z	0.08979261	0.00000000	0.15326246	-0.00000000	0.00000000
15	H	X	0.00000000	-0.09121570	0.00000000	-0.01249351	-0.06064294
		Y	-0.00000000	0.05968721	-0.00000000	0.08918778	0.04862571
		Z	0.03970088	0.00000000	0.13777777	0.00000000	-0.00000000
16	H	X	0.00000000	-0.11414925	0.00000000	-0.05311112	-0.06979768
		Y	0.00000000	-0.02215858	0.00000000	-0.01832394	-0.00509018
		Z	-0.07373600	-0.00000000	-0.06098616	0.00000000	0.00000000
17	H	X	0.00000000	-0.05368693	-0.00000000	0.03809493	-0.04332371
		Y	0.00000000	-0.07263315	0.00000000	-0.08227942	-0.03109014
		Z	-0.11810344	-0.00000000	-0.24194115	-0.00000000	-0.00000000
18	H	X	-0.06387741	0.04854329	0.01075833	0.05795028	0.05169246
		Y	0.14691877	0.01470724	-0.11866474	-0.02922744	-0.07120177
		Z	0.24145458	0.00022136	-0.18954389	-0.00004097	0.00317970
19	H	X	0.06387741	0.04854329	-0.01075833	0.05795028	0.05169246
		Y	-0.14691877	0.01470724	0.11866474	-0.02922744	-0.07120177
		Z	0.24145458	-0.00022136	-0.18954389	0.00004097	-0.00317970
20	H	X	0.08361592	-0.02208950	-0.04768873	-0.02095100	0.14606975
		Y	-0.09183493	-0.05303524	0.04119478	-0.08930285	-0.00423484
		Z	-0.16473835	0.00019293	0.04282035	0.00327132	0.00294014
21	H	X	-0.08361592	-0.02208950	0.04768873	-0.02095100	0.14606975
		Y	0.09183493	-0.05303524	-0.04119478	-0.08930285	-0.00423484
		Z	-0.16473835	-0.00019293	0.04282035	-0.00327132	-0.00294014
22	H	X	0.02543493	0.04474759	0.00209798	-0.12944122	0.01773048
		Y	-0.02473267	-0.08408128	0.01603837	-0.04388547	0.07181900
		Z	-0.10899272	0.00078088	0.04006382	0.00104900	0.00019936
23	H	X	-0.02543493	0.04474759	-0.00209798	-0.12944122	0.01773048
		Y	0.02473267	-0.08408128	-0.01603837	-0.04388547	0.07181900
		Z	-0.10899272	-0.00078088	0.04006382	-0.00104900	-0.00019936
TRANS. SAYVETZ		X	-0.00000000	0.00079622	-0.00000000	0.00042280	-0.00203128
		Y	0.00000000	0.00665663	-0.00000000	0.00809281	0.00276786
		Z	0.03941742	-0.00000000	-0.03772849	-0.00000000	-0.00000000

TOTAL 0.03941742 0.00670408 0.03772849 0.00810385 0.00343324

ROT. SAYVETZ X 0.01541815 -0.00000000 -0.02471342 -0.00000000 0.00000000
Y -0.30177823 -0.00000000 -0.31404616 0.00000000 -0.00000000
Z 0.00000000 0.06022257 -0.00000000 -0.03089026 0.00855592
TOTAL 0.30217184 0.06022257 0.31501705 0.03089026 0.00855592

FREQUENCY: 16 17 18 19 20
SYMMETRY: A'' A' A'' A'' A'
REDUCED MASS: 4.43832 6.33155 2.97932 4.39204 7.40127

1	N	X	-0.00000000	-0.05508727	0.00000000	-0.00000000	-0.00442958
		Y	0.00000000	0.02446963	-0.00000000	0.00000000	-0.02762571
		Z	0.00048431	-0.00000000	-0.03805390	0.13223460	0.00000000
2	C	X	-0.00000000	-0.05174181	0.00000000	-0.00000000	-0.01747406
		Y	-0.00000000	-0.00280891	0.00000000	0.00000000	-0.06264757
		Z	0.00270591	0.00000000	0.11439292	-0.03285622	0.00000000
3	C	X	-0.00000000	-0.01172070	0.00000000	0.00000000	-0.03423431
		Y	-0.00000000	-0.02540113	0.00000000	0.00000000	-0.03476039
		Z	-0.00233830	-0.00000000	-0.09752172	-0.12795945	-0.00000000
4	C	X	-0.00000000	-0.03637786	0.00000000	0.00000000	0.04424870
		Y	-0.00000000	-0.02924122	0.00000000	0.00000000	-0.03878044
		Z	0.00056968	-0.00000000	-0.05128266	0.13049340	0.00000000
5	C	X	-0.00000000	-0.03562927	0.00000000	0.00000000	0.06482920
		Y	-0.00000000	0.00143311	0.00000000	-0.00000000	-0.00973600
		Z	0.00220512	0.00000000	0.14416711	-0.05388308	-0.00000000
6	C	X	-0.00000000	-0.05838652	0.00000000	-0.00000000	0.05857755
		Y	0.00000000	0.02501514	-0.00000000	-0.00000000	-0.00229591
		Z	-0.00258199	-0.00000000	-0.07811378	-0.06930389	-0.00000000
7	C	X	0.00000000	0.04007725	-0.00000000	0.00000000	-0.05070011
		Y	-0.00000000	0.03547834	-0.00000000	-0.00000000	0.07038798
		Z	-0.00280202	-0.00000000	-0.07086727	-0.07454300	-0.00000000
8	C	X	0.00000000	0.07931773	-0.00000000	0.00000000	-0.01209420
		Y	-0.00000000	-0.00403874	0.00000000	-0.00000000	0.05579181
		Z	0.00817221	-0.00000000	0.00625731	0.00087864	0.00000000
9	C	X	0.00000000	0.03798432	-0.00000000	0.00000000	-0.03656488
		Y	-0.00000000	-0.10271740	0.00000000	-0.00000000	-0.04328419
		Z	-0.02683184	0.00000000	0.00766231	0.00694085	0.00000000
10	O	X	0.00000000	0.13484897	-0.00000000	0.00000000	-0.08216117
		Y	0.00000000	0.06142528	-0.00000000	-0.00000000	0.07011657
		Z	0.00207099	0.00000000	0.02952877	0.03430140	0.00000000
11	C	X	0.00000000	-0.02163201	0.00000000	0.00000000	-0.03693155
		Y	0.00000000	-0.04805521	0.00000000	-0.00000000	-0.02696230
		Z	-0.05178101	0.00000000	0.00165925	0.00145388	0.00000000
12	N	X	0.00000000	-0.00173026	-0.00000000	-0.00000000	0.10210464
		Y	0.00000000	0.06325678	-0.00000000	-0.00000000	0.09621870
		Z	0.20401066	-0.00000000	-0.00664432	-0.00432893	-0.00000000
13	N	X	-0.00000000	-0.04603374	0.00000000	-0.00000000	0.01506446
		Y	-0.00000000	-0.01028750	0.00000000	0.00000000	-0.06047248
		Z	-0.12202940	0.00000000	0.00317645	0.00179357	0.00000000
14	H	X	-0.00000000	-0.08851154	0.00000000	-0.00000000	-0.01837351
		Y	-0.00000000	-0.01439709	0.00000000	0.00000000	-0.06225556
		Z	0.00711063	0.00000000	0.32807837	-0.03153483	0.00000000
15	H	X	-0.00000000	-0.03194626	0.00000000	0.00000000	0.09212336
		Y	-0.00000000	-0.03162085	0.00000000	0.00000000	-0.08393013
		Z	0.00220896	-0.00000000	-0.11662473	0.33783840	0.00000000
16	H	X	0.00000000	-0.00317544	0.00000000	-0.00000000	0.07053756
		Y	0.00000000	0.01290094	-0.00000000	-0.00000000	-0.00862743
		Z	0.00459536	0.00000000	0.28371098	-0.04435446	0.00000000

17	H	X	-0.00000000	-0.05750288	0.00000000	-0.00000000	0.06598874
		Y	0.00000000	0.03169811	-0.00000000	0.00000000	0.03501518
		Z	-0.00706632	-0.00000000	-0.23187298	-0.15182445	-0.00000000
18	H	X	-0.01644501	0.13716137	0.03021492	0.02705450	0.02972040
		Y	0.03620698	0.00723080	0.07641811	0.08026472	0.06018897
		Z	0.03689896	-0.00028664	0.05826088	0.05642638	-0.00198114
19	H	X	0.01644501	0.13716137	-0.03021492	-0.02705450	0.02972040
		Y	-0.03620698	0.00723080	-0.07641811	-0.08026472	0.06018897
		Z	0.03689896	0.00028664	0.05826088	0.05642638	0.00198114
20	H	X	0.00860949	0.03233643	-0.00056533	-0.00349888	-0.07255566
		Y	0.00861229	-0.09560094	0.00165186	0.00441553	-0.04119907
		Z	-0.02104511	0.00400215	0.00854047	0.01008636	0.00348388
21	H	X	-0.00860949	0.03233643	0.00056533	0.00349888	-0.07255566
		Y	-0.00861229	-0.09560094	-0.00165186	-0.00441553	-0.04119907
		Z	-0.02104511	-0.00400215	0.00854047	0.01008636	-0.00348388
22	H	X	0.14016492	-0.08762900	-0.00687855	-0.00537770	-0.07334198
		Y	-0.17580632	-0.03980352	-0.00114019	-0.00274738	-0.02331480
		Z	-0.16880614	0.00260427	0.00066807	-0.00060257	0.00280049
23	H	X	-0.14016492	-0.08762900	0.00687855	0.00537770	-0.07334198
		Y	0.17580632	-0.03980352	0.00114019	0.00274738	-0.02331480
		Z	-0.16880614	-0.00260427	0.00066807	-0.00060257	-0.00280049

TRANS. SAYVETZ	X	0.00000000	0.00182236	-0.00000000	0.00000000	-0.00183606
	Y	-0.00000000	0.00305877	0.00000000	-0.00000000	-0.00167671
	Z	0.01431342	-0.00000000	0.00846597	-0.01667287	-0.00000000
TOTAL		0.01431342	0.00356049	0.00846597	0.01667287	0.00248646

ROT. SAYVETZ	X	-0.02847865	0.00000000	-0.08180053	0.10410512	0.00000000
	Y	0.02841791	-0.00000000	-0.10913605	-0.00120569	-0.00000000
	Z	-0.00000000	0.00058018	0.00000000	0.00000000	-0.02261354
TOTAL		0.04023197	0.00058018	0.13638916	0.10411211	0.02261354

	21	22	23	24	25
FREQUENCY:	512.28	586.12	633.69	663.72	684.84
SYMMETRY:	A'	A''	A'	A'	A''
REDUCED MASS:	6.17425	2.53248	7.69490	6.62900	3.54877

1	N	X	0.02527949	0.00000000	0.12416818	0.00141194	0.00000000
		Y	0.01475880	0.00000000	0.09019967	0.00352401	0.00000000
		Z	-0.00000000	0.04750538	-0.00000000	-0.00000000	0.11803999
2	C	X	0.03181620	0.00000000	0.06897324	0.00527764	0.00000000
		Y	0.04726725	0.00000000	-0.07934735	0.01847123	0.00000000
		Z	0.00000000	-0.02332127	0.00000000	0.00000000	-0.10302459
3	C	X	0.01903514	0.00000000	0.01031180	0.01099819	0.00000000
		Y	0.03220648	-0.00000000	-0.06349906	0.00372238	-0.00000000
		Z	-0.00000000	-0.10918850	-0.00000000	-0.00000000	0.10226858
4	C	X	-0.02123476	0.00000000	-0.10321026	0.00280679	0.00000000
		Y	0.04682321	-0.00000000	-0.09199245	0.00728370	-0.00000000
		Z	0.00000000	-0.02503424	0.00000000	0.00000000	-0.07918913
5	C	X	-0.03393478	-0.00000000	-0.07291475	-0.00184949	-0.00000000
		Y	0.01575468	-0.00000000	0.08165604	-0.00714472	-0.00000000
		Z	0.00000000	0.03114601	-0.00000000	0.00000000	0.10971744
6	C	X	-0.01703475	-0.00000000	-0.00749287	-0.00823667	-0.00000000
		Y	-0.00545774	0.00000000	0.05454430	-0.00338815	0.00000000
		Z	-0.00000000	-0.04092693	0.00000000	0.00000000	-0.09576913
7	C	X	0.00430668	0.00000000	0.01553567	0.00306282	0.00000000
		Y	-0.06278815	-0.00000000	0.00596758	-0.02949487	-0.00000000
		Z	0.00000000	0.17371488	-0.00000000	-0.00000000	-0.00574800
8	C	X	-0.09090683	0.00000000	0.00416280	-0.04115313	0.00000000
		Y	-0.00981731	0.00000000	0.01396927	0.05229102	0.00000000

		Z	0.00000000	0.04381048	0.00000000	-0.00000000	-0.00708775
9	C	X	-0.08004737	0.00000000	-0.00599125	-0.04319824	-0.00000000
		Y	-0.00625847	0.00000000	0.00231917	0.00902354	0.00000000
		Z	0.00000000	-0.00949292	0.00000000	0.00000000	-0.00102269
10	O	X	0.09257265	-0.00000000	-0.02977527	0.00187708	-0.00000000
		Y	-0.04618131	-0.00000000	-0.00731914	-0.03656875	-0.00000000
		Z	-0.00000000	-0.05478863	-0.00000000	-0.00000000	0.00449029
11	C	X	-0.08727747	0.00000000	-0.00182244	0.18081427	-0.00000000
		Y	-0.00566736	0.00000000	-0.00694987	-0.13328569	-0.00000000
		Z	0.00000000	-0.00687024	0.00000000	-0.00000000	0.00024918
12	N	X	0.10919522	-0.00000000	0.00172418	-0.01314740	0.00000000
		Y	0.05517858	-0.00000000	0.00417384	0.09544471	0.00000000
		Z	-0.00000000	0.00542399	-0.00000000	-0.00000000	-0.00016307
13	N	X	0.04812734	-0.00000000	-0.00120019	-0.06801259	0.00000000
		Y	-0.06277088	-0.00000000	-0.00074209	0.01935199	-0.00000000
		Z	0.00000000	-0.00158952	-0.00000000	-0.00000000	0.00003621
14	H	X	0.05070610	-0.00000000	-0.02936888	0.00849386	-0.00000000
		Y	0.05187896	-0.00000000	-0.10649910	0.01952362	0.00000000
		Z	0.00000000	0.08005037	0.00000000	0.00000000	-0.28959374
15	H	X	-0.05746581	-0.00000000	-0.06306385	-0.01467526	-0.00000000
		Y	0.07975866	0.00000000	-0.12731794	0.02245420	-0.00000000
		Z	0.00000000	0.07734539	0.00000000	-0.00000000	-0.18262588
16	H	X	-0.05497283	0.00000000	0.01842249	-0.00345146	0.00000000
		Y	0.00907331	0.00000000	0.11378443	-0.00759354	-0.00000000
		Z	0.00000000	0.14171216	-0.00000000	-0.00000000	-0.05873568
17	H	X	-0.02316506	-0.00000000	-0.03336262	-0.00857553	-0.00000000
		Y	-0.03755936	-0.00000000	-0.08777539	-0.00425450	0.00000000
		Z	-0.00000000	-0.05768334	-0.00000000	0.00000000	-0.30592713
18	H	X	-0.13807578	-0.09597727	-0.00338012	-0.07302832	0.00574798
		Y	-0.02415351	-0.31933735	0.01221289	0.04032682	0.03810536
		Z	-0.00302189	-0.18058292	-0.00022272	-0.00336230	0.02052902
19	H	X	-0.13807578	0.09597727	-0.00338012	-0.07302832	-0.00574798
		Y	-0.02415351	0.31933735	0.01221289	0.04032682	-0.03810536
		Z	0.00302189	-0.18058292	0.00022272	0.00336230	0.02052902
20	H	X	-0.10403139	0.04330484	-0.01698758	-0.11889745	-0.00791049
		Y	-0.00653278	-0.06182222	0.00094281	-0.01351002	0.01738524
		Z	0.00009772	-0.05780814	0.00003121	-0.00897495	0.01247120
21	H	X	-0.10403139	-0.04330484	-0.01698758	-0.11889745	0.00791049
		Y	-0.00653278	0.06182222	0.00094281	-0.01351002	-0.01738524
		Z	-0.00009772	-0.05780814	-0.00003121	0.00897495	0.01247120
22	H	X	-0.07861805	0.00558381	-0.00587284	0.09355806	0.00216890
		Y	-0.01345555	0.00179022	-0.00592484	-0.08326664	0.00484362
		Z	-0.00161515	-0.00570547	0.00057711	0.02602344	0.00376906
23	H	X	-0.07861805	-0.00558381	-0.00587284	0.09355806	-0.00216890
		Y	-0.01345555	-0.00179022	-0.00592484	-0.08326664	-0.00484362
		Z	0.00161515	-0.00570547	-0.00057711	-0.02602344	0.00376906

TRANS. SAYVETZ		X	0.00231365	0.00000000	-0.00066114	-0.00105331	-0.00000000
		Y	0.00142219	-0.00000000	-0.00078948	-0.00173696	-0.00000000
		Z	-0.00000000	-0.00007586	-0.00000000	-0.00000000	-0.00162250
		TOTAL	0.00271581	0.00007586	0.00102975	0.00203138	0.00162250

ROT. SAYVETZ		X	-0.00000000	-0.00205177	-0.00000000	-0.00000000	-0.01905495
		Y	0.00000000	-0.02206594	-0.00000000	-0.00000000	0.02551415
		Z	-0.00892648	0.00000000	-0.00271430	0.00837728	0.00000000
		TOTAL	0.00892648	0.02216112	0.00271430	0.00837728	0.03184435

		26	27	28	29	30
FREQUENCY:		696.50	768.21	797.90	816.18	892.29
SYMMETRY:		A'	A''	A''	A'	A''

REDUCED MASS:		6.82689	1.14422	1.30041	5.83564	1.46648	
1	N	X	0.01138890	0.00000000	-0.00000000	-0.04362848	-0.00000000
		Y	-0.04502310	0.00000000	-0.00000000	-0.05850857	-0.00000000
		Z	0.00000000	0.00963193	0.02644966	-0.00000000	-0.00480866
2	C	X	-0.00560192	0.00000000	-0.00000000	-0.02805269	-0.00000000
		Y	-0.07929129	0.00000000	-0.00000000	-0.05562450	-0.00000000
		Z	-0.00000000	-0.00947218	-0.02379387	0.00000000	-0.00469596
3	C	X	-0.10220175	0.00000000	0.00000000	-0.02541685	0.00000000
		Y	0.00914505	-0.00000000	0.00000000	0.00055925	-0.00000000
		Z	0.00000000	-0.00062526	0.06908666	-0.00000000	-0.04126884
4	C	X	-0.02818677	0.00000000	-0.00000000	-0.02073773	-0.00000000
		Y	0.07033338	-0.00000000	0.00000000	0.06496976	0.00000000
		Z	-0.00000000	-0.03372794	-0.08791127	0.00000000	-0.00114641
5	C	X	-0.00846232	0.00000000	-0.00000000	-0.02601633	-0.00000000
		Y	0.10811890	-0.00000000	0.00000000	0.09780492	0.00000000
		Z	0.00000000	-0.01245594	-0.04204749	0.00000000	0.02388131
6	C	X	0.09880662	-0.00000000	-0.00000000	0.05946557	0.00000000
		Y	-0.00722559	0.00000000	0.00000000	-0.00558440	0.00000000
		Z	-0.00000000	-0.01643784	-0.05166579	0.00000000	0.01455460
7	C	X	-0.08507181	0.00000000	0.00000000	0.05542932	0.00000000
		Y	-0.00263702	0.00000000	-0.00000000	-0.05258014	0.00000000
		Z	0.00000000	0.05228880	-0.01557112	-0.00000000	0.10250412
8	C	X	-0.05539517	-0.00000000	0.00000000	0.09709269	0.00000000
		Y	-0.08708780	0.00000000	0.00000000	0.12253920	0.00000000
		Z	-0.00000000	-0.02281974	-0.02099173	0.00000000	-0.08409198
9	C	X	0.02179284	-0.00000000	-0.00000000	0.00543748	-0.00000000
		Y	-0.01927688	-0.00000000	0.00000000	0.02654304	0.00000000
		Z	-0.00000000	-0.05578392	0.02059216	-0.00000000	-0.02281297
10	O	X	0.06712142	-0.00000000	-0.00000000	-0.00946690	-0.00000000
		Y	0.03958206	0.00000000	-0.00000000	-0.09335659	-0.00000000
		Z	-0.00000000	-0.01265112	0.00329046	0.00000000	-0.02196254
11	C	X	0.05844444	0.00000000	0.00000000	-0.04885536	-0.00000000
		Y	0.01151825	-0.00000000	-0.00000000	-0.02364337	-0.00000000
		Z	0.00000000	-0.04514767	0.02919818	-0.00000000	0.07907992
12	N	X	-0.00965853	-0.00000000	0.00000000	0.00072994	0.00000000
		Y	0.00173616	0.00000000	0.00000000	-0.00212971	0.00000000
		Z	0.00000000	0.01937487	-0.01149470	0.00000000	-0.02720654
13	N	X	-0.00858007	-0.00000000	-0.00000000	0.00151123	0.00000000
		Y	0.00696534	0.00000000	0.00000000	-0.00157674	-0.00000000
		Z	-0.00000000	-0.00351951	0.00223301	-0.00000000	0.00516696
14	H	X	0.04897114	-0.00000000	-0.00000000	-0.00986401	0.00000000
		Y	-0.06635753	0.00000000	-0.00000000	-0.05289195	-0.00000000
		Z	-0.00000000	0.07169687	0.11349737	-0.00000000	0.06244848
15	H	X	0.05337563	-0.00000000	-0.00000000	0.02223786	0.00000000
		Y	-0.00244913	0.00000000	0.00000000	0.03099676	-0.00000000
		Z	-0.00000000	0.18302039	0.47019686	-0.00000000	0.01541466
16	H	X	-0.10402331	0.00000000	-0.00000000	-0.12386065	-0.00000000
		Y	0.07616330	-0.00000000	-0.00000000	0.06687372	0.00000000
		Z	0.00000000	0.19212083	0.55267965	-0.00000000	-0.19046842
17	H	X	0.09670845	-0.00000000	-0.00000000	0.06103098	0.00000000
		Y	-0.02574259	0.00000000	0.00000000	0.00033265	0.00000000
		Z	-0.00000000	0.10390848	0.30201999	-0.00000000	-0.06758326
18	H	X	-0.04018300	-0.12141259	0.03293724	0.11310246	-0.18155064
		Y	-0.07587488	0.14462613	0.05220953	0.11440788	0.26251403
		Z	0.00556391	0.10280710	0.01396216	-0.00834767	0.13819724
19	H	X	-0.04018300	0.12141259	-0.03293724	0.11310246	0.18155064
		Y	-0.07587488	-0.14462613	-0.05220953	0.11440788	-0.26251403
		Z	-0.00556391	0.10280710	0.01396216	0.00834767	0.13819724
20	H	X	0.07645294	-0.01665288	-0.04216963	-0.06565731	-0.27813156

		Y	-0.01647359	0.39451402	-0.12825340	0.02379417	0.04988812
		Z	-0.00233182	0.23685181	-0.07057788	0.00342415	0.03809035
21	H	X	0.07645294	0.01665288	0.04216963	-0.06565731	0.27813156
		Y	-0.01647359	-0.39451402	0.12825340	0.02379417	-0.04988812
		Z	0.00233182	0.23685181	-0.07057788	-0.00342415	0.03809035
22	H	X	0.06131837	0.13198520	-0.06597213	-0.06648265	-0.10359312
		Y	0.01858067	0.29257778	-0.14709781	-0.03030682	-0.27800305
		Z	0.00336624	0.16489742	-0.07626166	-0.00358430	-0.11877399
23	H	X	0.06131837	-0.13198520	0.06597213	-0.06648265	0.10359312
		Y	0.01858067	-0.29257778	0.14709781	-0.03030682	0.27800305
		Z	-0.00336624	0.16489742	-0.07626166	0.00358430	-0.11877399
TRANS. SAYVETZ		X	-0.00034617	-0.00000000	-0.00000000	-0.00004189	0.00000000
		Y	0.00044186	0.00000000	0.00000000	-0.00148184	0.00000000
		Z	-0.00000000	-0.00356833	-0.00212136	-0.00000000	-0.00087253
		TOTAL	0.00056131	0.00356833	0.00212136	0.00148243	0.00087253

ROT. SAYVETZ		X	0.00000000	0.01794934	0.04287226	-0.00000000	-0.01391582
		Y	0.00000000	-0.02180331	0.00345059	-0.00000000	-0.01062978
		Z	-0.00298944	-0.00000000	-0.00000000	0.00227273	0.00000000
		TOTAL	0.00298944	0.02824116	0.04301090	0.00227273	0.01751120

	31	32	33	34	35
FREQUENCY:	936.52	949.78	998.76	1008.89	1054.58
SYMMETRY:	A''	A''	A''	A'	A'
REDUCED MASS:	1.21307	1.32923	1.44012	5.34091	4.48127

1	N	X	-0.00000000	-0.00000000	-0.00000000	-0.07547500	-0.02758856
		Y	-0.00000000	-0.00000000	-0.00000000	-0.08092219	-0.05295466
		Z	0.01901664	0.02147009	-0.00058910	0.00000000	0.00000000
2	C	X	-0.00000000	0.00000000	-0.00000000	-0.00401286	0.00564890
		Y	-0.00000000	0.00000000	-0.00000000	-0.01675605	0.15941879
		Z	0.00901576	-0.10132770	0.10357373	-0.00000000	0.00000000
3	C	X	-0.00000000	0.00000000	0.00000000	0.09493566	-0.00426272
		Y	0.00000000	0.00000000	-0.00000000	-0.00208697	0.00114292
		Z	-0.00420653	0.01995297	-0.03389906	0.00000000	0.00000000
4	C	X	0.00000000	-0.00000000	-0.00000000	-0.01731256	-0.09368846
		Y	0.00000000	-0.00000000	-0.00000000	-0.02710695	-0.12589630
		Z	0.08241432	0.06191011	0.00564778	-0.00000000	0.00000000
5	C	X	0.00000000	-0.00000000	-0.00000000	-0.02088933	0.00770332
		Y	0.00000000	-0.00000000	0.00000000	0.08179843	0.04079816
		Z	-0.08325467	0.02785191	0.04555607	-0.00000000	0.00000000
6	C	X	-0.00000000	-0.00000000	-0.00000000	0.01446985	0.09688395
		Y	0.00000000	-0.00000000	0.00000000	0.02227747	-0.01577089
		Z	-0.01476398	-0.07838304	-0.11506866	0.00000000	-0.00000000
7	C	X	0.00000000	0.00000000	0.00000000	0.14373153	-0.03422069
		Y	-0.00000000	0.00000000	0.00000000	0.06539588	-0.01705722
		Z	0.02182729	-0.00527102	0.00629688	-0.00000000	-0.00000000
8	C	X	0.00000000	0.00000000	0.00000000	-0.00947001	-0.01713446
		Y	0.00000000	0.00000000	-0.00000000	-0.09623714	0.03637394
		Z	-0.01042190	-0.00135167	0.00134757	-0.00000000	0.00000000
9	C	X	-0.00000000	0.00000000	-0.00000000	-0.04600231	0.01992565
		Y	-0.00000000	0.00000000	0.00000000	0.03498904	-0.03071853
		Z	-0.00920153	0.00066828	-0.00428302	0.00000000	-0.00000000
10	O	X	0.00000000	-0.00000000	-0.00000000	-0.03207859	0.00703251
		Y	-0.00000000	-0.00000000	0.00000000	0.03554377	-0.00852584
		Z	-0.00399079	0.00123233	-0.00120001	0.00000000	-0.00000000
11	C	X	0.00000000	-0.00000000	-0.00000000	0.00442666	0.00348715
		Y	0.00000000	-0.00000000	-0.00000000	-0.01456518	0.01428920
		Z	0.01428680	-0.00143009	0.00437334	-0.00000000	0.00000000

12	N	X	-0.00000000	0.00000000	0.00000000	0.00653615	-0.00319407
		Y	0.00000000	0.00000000	0.00000000	0.00950450	-0.00510740
		Z	-0.00484390	0.00036495	-0.00139800	0.00000000	0.00000000
13	N	X	-0.00000000	0.00000000	-0.00000000	-0.00008023	0.00044331
		Y	0.00000000	-0.00000000	-0.00000000	-0.00255755	0.00112856
		Z	0.00087860	-0.00007547	0.00024444	0.00000000	0.00000000
14	H	X	-0.00000000	0.00000000	-0.00000000	-0.00434861	0.16866257
		Y	-0.00000000	0.00000000	-0.00000000	-0.01902745	0.21188103
		Z	-0.21119248	0.60131533	-0.52624639	0.00000000	-0.00000000
15	H	X	0.00000000	-0.00000000	-0.00000000	-0.02345829	-0.02589837
		Y	0.00000000	-0.00000000	0.00000000	-0.01626535	-0.19709126
		Z	-0.60565146	-0.33504508	-0.03003077	-0.00000000	0.00000000
16	H	X	-0.00000000	0.00000000	0.00000000	0.02212211	0.10979341
		Y	0.00000000	0.00000000	0.00000000	0.10081389	0.07201986
		Z	0.61297645	-0.14676077	-0.16624406	0.00000000	0.00000000
17	H	X	-0.00000000	-0.00000000	-0.00000000	0.02014716	0.11008754
		Y	-0.00000000	-0.00000000	0.00000000	0.05806224	0.02681918
		Z	-0.04800645	0.48395457	0.59959544	-0.00000000	0.00000000
18	H	X	-0.03555155	0.01725955	-0.02040757	-0.16743721	0.02443930
		Y	0.03880669	0.00710283	-0.00295903	-0.12899591	0.04691314
		Z	0.02333254	0.00135942	0.00200249	0.00097285	0.00053886
19	H	X	0.03555155	-0.01725955	0.02040757	-0.16743721	0.02443930
		Y	-0.03880669	-0.00710283	0.00295903	-0.12899591	0.04691314
		Z	0.02333254	0.00135942	0.00200249	-0.00097285	-0.00053886
20	H	X	-0.05500860	0.00490028	-0.01620233	-0.07049406	0.04090789
		Y	0.02427917	-0.00275603	0.01141237	0.02243231	-0.02416338
		Z	0.01350905	-0.00188036	0.00558356	-0.00724551	0.00361592
21	H	X	0.05500860	-0.00490028	0.01620233	-0.07049406	0.04090789
		Y	-0.02427917	0.00275603	-0.01141237	0.02243231	-0.02416338
		Z	0.01350905	-0.00188036	0.00558356	0.00724551	-0.00361592
22	H	X	-0.01375022	0.00198530	-0.00271586	0.01293249	0.00126572
		Y	-0.04633011	0.00412037	-0.01279959	-0.00708616	0.01113478
		Z	-0.01849454	0.00151952	-0.00461317	0.00517108	-0.00253460
23	H	X	0.01375022	-0.00198530	0.00271586	0.01293249	0.00126572
		Y	0.04633011	-0.00412037	0.01279959	-0.00708616	0.01113478
		Z	-0.01849454	0.00151952	-0.00461317	-0.00517108	0.00253460
TRANS. SAYVETZ		X	-0.00000000	0.00000000	-0.00000000	0.00000319	-0.00049608
		Y	0.00000000	-0.00000000	-0.00000000	0.00061369	0.00016428
		Z	-0.00158442	0.00604765	0.00104370	-0.00000000	0.00000000
		TOTAL	0.00158442	0.00604765	0.00104370	0.00061370	0.00052258
ROT. SAYVETZ		X	-0.01321999	-0.02341214	0.01326455	0.00000000	-0.00000000
		Y	0.03523513	-0.02285812	0.01789102	-0.00000000	0.00000000
		Z	-0.00000000	-0.00000000	-0.00000000	0.00253029	0.00045312
		TOTAL	0.03763353	0.03272036	0.02227188	0.00253029	0.00045312
			36	37	38	39	40
FREQUENCY:			1060.39	1089.40	1106.87	1109.09	1177.80
SYMMETRY:			A'	A'	A'	A''	A'
REDUCED MASS:			3.09616	2.66687	3.24992	1.73494	1.49067
1	N	X	0.00218637	0.01221685	0.01857253	0.00000000	-0.04001663
		Y	0.01049796	0.07639309	-0.01164332	-0.00000000	-0.00909390
		Z	0.00000000	0.00000000	0.00000000	-0.00149840	0.00000000
2	C	X	-0.00557890	-0.05913338	0.01193846	0.00000000	0.06314576
		Y	0.00065777	0.01274670	0.03301267	0.00000000	-0.06049102
		Z	0.00000000	-0.00000000	0.00000000	-0.00382254	-0.00000000
3	C	X	-0.00851494	-0.01216637	-0.05470558	-0.00000000	-0.01743082
		Y	0.00259932	0.00463667	0.01287568	0.00000000	0.01813681

		Z	0.00000000	-0.00000000	-0.00000000	0.02663638	-0.00000000
4	C	X	-0.01100075	-0.06717716	0.00968637	0.00000000	-0.09623465
		Y	-0.00324445	-0.00388511	-0.02499176	-0.00000000	0.02457564
		Z	0.00000000	0.00000000	0.00000000	-0.00305603	0.00000000
5	C	X	0.00531066	-0.01142172	0.01029214	0.00000000	0.07600869
		Y	-0.01734518	-0.09853058	0.01356196	0.00000000	-0.04077076
		Z	-0.00000000	0.00000000	0.00000000	-0.00333159	-0.00000000
6	C	X	0.01933462	0.14853340	-0.03500481	-0.00000000	-0.00490797
		Y	0.00084760	-0.00507743	-0.00938999	-0.00000000	0.03007385
		Z	0.00000000	0.00000000	-0.00000000	0.00142711	0.00000000
7	C	X	0.00284476	0.03359553	-0.05851641	-0.00000000	-0.01758933
		Y	0.00489133	0.01090141	-0.01413459	-0.00000000	-0.00561436
		Z	0.00000000	0.00000000	0.00000000	-0.10439270	-0.00000000
8	C	X	-0.04966131	0.04662697	0.10967737	0.00000000	0.01868642
		Y	0.00831196	-0.04703728	-0.09685570	-0.00000000	-0.00353980
		Z	-0.00000000	-0.00000000	-0.00000000	0.10895383	0.00000000
9	C	X	0.16243348	-0.04776521	-0.06206079	-0.00000000	-0.00829498
		Y	0.09655178	0.03484070	0.14196188	0.00000000	0.00571933
		Z	0.00000000	0.00000000	0.00000000	-0.09291222	-0.00000000
10	O	X	-0.00369367	-0.00032608	0.01546123	0.00000000	0.00617234
		Y	0.01629551	0.00308124	0.01266365	0.00000000	-0.00886364
		Z	-0.00000000	-0.00000000	-0.00000000	0.01836385	0.00000000
11	C	X	-0.06838144	0.00119971	-0.02541510	-0.00000000	0.00008094
		Y	-0.12948706	-0.00516520	-0.06784371	-0.00000000	0.00053630
		Z	-0.00000000	-0.00000000	-0.00000000	0.07004700	0.00000000
12	N	X	0.00171689	0.00431356	0.01223880	0.00000000	0.00034083
		Y	0.00957730	0.00575315	0.01939321	0.00000000	0.00046643
		Z	0.00000000	0.00000000	0.00000000	-0.02240846	-0.00000000
13	N	X	-0.00760814	0.00049633	-0.00182359	-0.00000000	0.00006152
		Y	-0.00095362	-0.00162723	-0.00447714	-0.00000000	-0.00005678
		Z	-0.00000000	-0.00000000	-0.00000000	0.00374066	0.00000000
14	H	X	-0.01316029	-0.20088125	0.11699951	0.00000000	0.16803611
		Y	-0.00094212	-0.02258602	0.06330751	0.00000000	-0.03710408
		Z	-0.00000000	0.00000000	-0.00000000	0.02657342	0.00000000
15	H	X	-0.04506378	-0.19969445	0.14607737	0.00000000	-0.43409904
		Y	0.02527162	0.11119423	-0.15084861	-0.00000000	0.32312056
		Z	-0.00000000	-0.00000000	-0.00000000	0.02913931	-0.00000000
16	H	X	-0.01087921	-0.31506400	0.12448766	0.00000000	0.50610757
		Y	-0.02494564	-0.21549681	0.05435850	0.00000000	0.10075019
		Z	0.00000000	0.00000000	0.00000000	0.00263680	-0.00000000
17	H	X	0.02526541	0.18730034	-0.04924836	-0.00000000	0.02907638
		Y	0.02619998	0.15400893	-0.07965974	-0.00000000	0.22309074
		Z	-0.00000000	0.00000000	-0.00000000	0.00679783	-0.00000000
18	H	X	-0.20212005	0.02350778	0.19992011	-0.27050010	0.02658568
		Y	-0.00774460	-0.05047868	-0.06920165	-0.27835163	0.00637897
		Z	0.00623571	0.00236035	0.01035482	-0.06368923	0.00545016
19	H	X	-0.20212005	0.02350778	0.19992011	0.27050010	0.02658568
		Y	-0.00774460	-0.05047868	-0.06920165	0.27835163	0.00637897
		Z	-0.00623571	-0.00236035	-0.01035482	-0.06368923	-0.00545016
20	H	X	0.17002284	-0.08265471	-0.11487004	-0.14784381	-0.01900060
		Y	0.09366845	0.02674187	0.12816066	0.22034318	0.00465683
		Z	-0.00513621	-0.00373924	-0.00994409	0.08268410	-0.00004208
21	H	X	0.17002284	-0.08265471	-0.11487004	0.14784381	-0.01900060
		Y	0.09366845	0.02674187	0.12816066	-0.22034318	0.00465683
		Z	0.00513621	0.00373924	0.00994409	0.08268410	0.00004208
22	H	X	-0.16919186	0.01562724	-0.01836666	0.01889268	0.00362387
		Y	-0.14522102	0.00149742	-0.05563560	-0.18214359	0.00141493
		Z	-0.00748093	0.00466896	0.01060440	-0.05431209	0.00063810
23	H	X	-0.16919186	0.01562724	-0.01836666	-0.01889268	0.00362387
		Y	-0.14522102	0.00149742	-0.05563560	0.18214359	0.00141493

	Z	0.00748093	-0.00466896	-0.01060440	-0.05431209	-0.00063810
TRANS. SAYVETZ	X	0.00056525	0.00051828	-0.00070797	-0.00000000	-0.00060656
	Y	0.00006527	0.00046172	-0.00028670	0.00000000	-0.00014163
	Z	-0.00000000	-0.00000000	0.00000000	0.00040056	-0.00000000
	TOTAL	0.00056901	0.00069411	0.00076382	0.00040056	0.00062288

ROT. SAYVETZ	X	-0.00000000	-0.00000000	-0.00000000	-0.00350674	0.00000000
	Y	0.00000000	-0.00000000	0.00000000	0.00159650	0.00000000
	Z	0.00085970	0.00293000	0.00231412	-0.00000000	-0.00114503
	TOTAL	0.00085970	0.00293000	0.00231412	0.00385306	0.00114503

		41	42	43	44	45
FREQUENCY:		1235.57	1242.35	1272.63	1281.86	1321.38
SYMMETRY:		A''	A'	A'	A'	A''
REDUCED MASS:		1.22460	2.36862	1.72809	2.24317	1.15019

1	N	X	0.00000000	0.03201433	-0.01696635	-0.09363644	0.00000000
		Y	-0.00000000	-0.07475330	-0.02384524	0.05721828	0.00000000
		Z	0.00041018	-0.00000000	0.00000000	-0.00000000	-0.00022501
2	C	X	-0.00000000	-0.00345270	-0.00535544	0.13972440	-0.00000000
		Y	-0.00000000	-0.04852245	0.00417522	-0.00281217	-0.00000000
		Z	0.00043559	0.00000000	-0.00000000	0.00000000	-0.00008272
3	C	X	0.00000000	0.01642350	0.13715371	0.00283498	-0.00000000
		Y	0.00000000	0.08324548	-0.03837290	-0.09073234	0.00000000
		Z	-0.00735168	0.00000000	-0.00000000	0.00000000	0.00351232
4	C	X	0.00000000	0.03271105	0.01658471	-0.03652123	-0.00000000
		Y	-0.00000000	-0.05296493	-0.00123858	0.03414316	0.00000000
		Z	-0.00053257	0.00000000	0.00000000	0.00000000	0.00045880
5	C	X	-0.00000000	-0.07114067	-0.02503521	0.04641407	0.00000000
		Y	-0.00000000	-0.04922870	0.03673416	0.01431372	-0.00000000
		Z	0.00117705	-0.00000000	0.00000000	-0.00000000	-0.00061457
6	C	X	0.00000000	-0.01333264	0.01585527	-0.03120267	0.00000000
		Y	0.00000000	0.14726871	0.00191364	-0.04104257	-0.00000000
		Z	0.00026408	0.00000000	-0.00000000	0.00000000	-0.00018356
7	C	X	-0.00000000	-0.03042525	-0.07834624	-0.00166311	0.00000000
		Y	-0.00000000	-0.01077309	-0.01680425	0.00163748	0.00000000
		Z	0.03509349	-0.00000000	-0.00000000	0.00000000	-0.01849698
8	C	X	-0.00000000	-0.01081490	-0.05732393	-0.01270643	-0.00000000
		Y	0.00000000	0.00626442	-0.01289938	-0.00473041	0.00000000
		Z	-0.00204670	0.00000000	0.00000000	-0.00000000	-0.01968475
9	C	X	-0.00000000	-0.00134308	-0.03249272	-0.00691514	-0.00000000
		Y	-0.00000000	0.00159582	0.02795101	0.00611211	-0.00000000
		Z	-0.05717336	0.00000000	0.00000000	0.00000000	0.09059780
10	O	X	0.00000000	0.01184787	-0.00050005	-0.00873883	-0.00000000
		Y	-0.00000000	-0.01325705	0.01331677	0.00830497	-0.00000000
		Z	-0.00466272	0.00000000	0.00000000	-0.00000000	0.00165110
11	C	X	-0.00000000	-0.00226813	-0.02313609	-0.00531058	-0.00000000
		Y	-0.00000000	-0.00402557	-0.03722988	-0.00810929	-0.00000000
		Z	0.09178159	-0.00000000	-0.00000000	0.00000000	-0.01865869
12	N	X	-0.00000000	0.00025356	0.00487521	0.00119870	0.00000000
		Y	0.00000000	0.00088396	0.01132288	0.00254118	0.00000000
		Z	-0.05057336	0.00000000	0.00000000	-0.00000000	-0.04034718
13	N	X	-0.00000000	-0.00038310	-0.00346867	-0.00066239	-0.00000000
		Y	0.00000000	0.00005393	-0.00039941	-0.00021831	0.00000000
		Z	0.00746386	0.00000000	-0.00000000	-0.00000000	0.00531199
14	H	X	-0.00000000	0.27738758	-0.25009364	0.26686366	0.00000000
		Y	-0.00000000	0.01823313	-0.06181690	0.03094545	0.00000000
		Z	-0.00358693	-0.00000000	0.00000000	-0.00000000	0.00115572
15	H	X	0.00000000	0.05283948	-0.20031916	0.14260926	0.00000000

		Y	-0.00000000	-0.07441490	0.20228840	-0.12688248	-0.00000000
		Z	0.00690017	-0.00000000	-0.00000000	-0.00000000	-0.00662685
16	H	X	-0.00000000	-0.20533020	-0.06404478	-0.39779511	0.00000000
		Y	-0.00000000	-0.09796010	0.02753804	-0.13768585	0.00000000
		Z	-0.00188015	0.00000000	0.00000000	0.00000000	0.00111496
17	H	X	0.00000000	0.04524538	0.00678622	0.02204887	0.00000000
		Y	0.00000000	0.47144292	-0.05028336	0.31093068	-0.00000000
		Z	-0.00440370	0.00000000	0.00000000	0.00000000	0.00234238
18	H	X	0.33853575	0.05539878	0.33179178	0.06370685	-0.28581062
		Y	0.04070336	0.02102496	0.09190774	0.01495524	0.00391785
		Z	-0.01666021	0.00155773	0.02325559	0.00374632	0.02332677
19	H	X	-0.33853575	0.05539878	0.33179178	0.06370685	0.28581062
		Y	-0.04070336	0.02102496	0.09190774	0.01495524	-0.00391785
		Z	-0.01666021	-0.00155773	-0.02325559	-0.00374632	0.02332677
20	H	X	0.26149193	0.03383132	0.24253830	0.04998655	-0.12812792
		Y	0.15409251	0.00753081	0.06449898	0.01340975	-0.19896030
		Z	0.02944652	0.00082680	-0.00123828	-0.00044998	-0.03430952
21	H	X	-0.26149193	0.03383132	0.24253830	0.04998655	0.12812792
		Y	-0.15409251	0.00753081	0.06449898	0.01340975	0.19896030
		Z	0.02944652	-0.00082680	0.00123828	0.00044998	-0.03430952
22	H	X	0.36939476	0.00779053	0.10147534	0.02188289	0.53734115
		Y	-0.22910907	-0.00290609	-0.01826931	-0.00342151	0.02084894
		Z	-0.04440403	0.00138604	0.01968226	0.00458729	0.02467985
23	H	X	-0.36939476	0.00779053	0.10147534	0.02188289	-0.53734115
		Y	0.22910907	-0.00290609	-0.01826931	-0.00342151	-0.02084894
		Z	-0.04440403	-0.00138604	-0.01968226	-0.00458729	0.02467985

TRANS. SAYVETZ	X	-0.00000000	-0.00069017	-0.00049127	-0.00034822	-0.00000000
	Y	0.00000000	0.00011337	-0.00011146	0.00014260	0.00000000
	Z	0.00054447	0.00000000	0.00000000	0.00000000	0.00040908
	TOTAL	0.00054447	0.00069942	0.00050376	0.00037629	0.00040908

ROT. SAYVETZ	X	-0.00392247	0.00000000	-0.00000000	-0.00000000	0.00230586
	Y	0.00085440	-0.00000000	-0.00000000	-0.00000000	0.00361668
	Z	-0.00000000	-0.00033783	-0.00112886	0.00082822	-0.00000000
	TOTAL	0.00401445	0.00033783	0.00112886	0.00082822	0.00428921

		46	47	48	49	50
FREQUENCY:		1334.95	1357.80	1385.24	1395.27	1436.67
SYMMETRY:		A'	A''	A'	A'	A'
REDUCED MASS:		1.60409	1.07685	1.37922	1.27999	1.64162

1	N	X	0.01360422	-0.00000000	-0.00218677	-0.00441610	0.01260503
		Y	0.01714271	-0.00000000	-0.00267318	0.02325637	-0.01967037
		Z	-0.00000000	-0.00012006	0.00000000	-0.00000000	0.00000000
2	C	X	-0.01846101	0.00000000	-0.01612070	-0.05301642	0.01744459
		Y	-0.00921699	-0.00000000	0.00965394	-0.00559314	0.01774021
		Z	0.00000000	-0.00005590	-0.00000000	-0.00000000	-0.00000000
3	C	X	-0.08069763	0.00000000	0.01539188	-0.03875360	0.01283228
		Y	0.04180011	-0.00000000	-0.05569605	-0.04806970	-0.01866519
		Z	-0.00000000	0.00214037	-0.00000000	0.00000000	-0.00000000
4	C	X	-0.02041393	-0.00000000	0.04311876	0.04717749	0.00683548
		Y	0.00892589	-0.00000000	-0.02308583	-0.02561126	-0.00162177
		Z	0.00000000	0.00103358	-0.00000000	-0.00000000	-0.00000000
5	C	X	0.01214091	0.00000000	-0.00158683	0.00647764	-0.00146300
		Y	-0.02759221	0.00000000	0.02360588	0.00814956	0.01479873
		Z	0.00000000	-0.00051320	0.00000000	0.00000000	-0.00000000
6	C	X	0.00225835	0.00000000	-0.00065762	0.01134954	-0.01312265
		Y	-0.00934216	0.00000000	0.02667094	0.03816796	-0.00713910
		Z	-0.00000000	-0.00032186	0.00000000	-0.00000000	0.00000000

7	C	X	0.10085152	-0.00000000	-0.05428913	0.04675937	-0.06073515
		Y	0.02490979	-0.00000000	-0.01747216	0.01390544	-0.02965130
		Z	0.00000000	-0.01731192	0.00000000	-0.00000000	0.00000000
8	C	X	-0.03136280	0.00000000	0.06642192	-0.01645294	0.11988722
		Y	0.01114203	-0.00000000	0.01478258	-0.00674067	0.04779501
		Z	0.00000000	-0.05735367	-0.00000000	0.00000000	0.00000000
9	C	X	-0.06132468	-0.00000000	0.04495876	-0.05024189	-0.10135876
		Y	-0.01212401	0.00000000	-0.01309202	0.00685063	-0.01136692
		Z	-0.00000000	0.02644913	-0.00000000	0.00000000	-0.00000000
10	O	X	-0.00584433	0.00000000	0.00008261	-0.00774173	0.00316497
		Y	-0.02442407	0.00000000	0.02066874	-0.00181906	0.02049544
		Z	-0.00000000	0.00230882	0.00000000	0.00000000	-0.00000000
11	C	X	-0.06177496	0.00000000	-0.07373076	0.04273055	0.02422247
		Y	-0.04314763	0.00000000	-0.01902271	0.00776668	-0.00019800
		Z	0.00000000	0.03891970	-0.00000000	0.00000000	-0.00000000
12	N	X	0.00597645	0.00000000	0.00187128	-0.00036138	0.00040315
		Y	0.02087135	-0.00000000	0.01584427	-0.00791308	-0.00212280
		Z	0.00000000	0.00346493	0.00000000	-0.00000000	0.00000000
13	N	X	-0.01144203	0.00000000	-0.01619574	0.00974527	0.00548777
		Y	0.00302259	-0.00000000	0.00713374	-0.00462173	-0.00287043
		Z	-0.00000000	-0.00006765	-0.00000000	0.00000000	-0.00000000
14	H	X	0.07889918	-0.00000000	0.23979278	0.54175710	-0.14969931
		Y	0.01697180	-0.00000000	0.07692869	0.14968354	-0.02413967
		Z	-0.00000000	0.00010061	0.00000000	-0.00000000	0.00000000
15	H	X	0.13188749	-0.00000000	-0.21631579	-0.23387649	-0.03056264
		Y	-0.13213059	0.00000000	0.21438469	0.23150757	0.03328865
		Z	-0.00000000	-0.01356142	0.00000000	0.00000000	-0.00000000
16	H	X	0.13453475	-0.00000000	-0.17090019	-0.15336472	-0.02837066
		Y	0.01063255	0.00000000	-0.03100240	-0.04579294	0.00849003
		Z	-0.00000000	0.00124786	0.00000000	-0.00000000	-0.00000000
17	H	X	-0.00003125	0.00000000	-0.03262329	-0.05590809	0.00954798
		Y	-0.03289884	0.00000000	-0.15124406	-0.35601475	0.13615544
		Z	0.00000000	0.00202526	-0.00000000	0.00000000	-0.00000000
18	H	X	0.04539371	-0.38894769	-0.19667162	0.06782257	-0.31795565
		Y	0.00602330	0.04944856	-0.06069971	0.02014485	-0.14872740
		Z	-0.01163778	0.02607668	-0.01769780	0.00870378	-0.08126123
19	H	X	0.04539371	0.38894769	-0.19667162	0.06782257	-0.31795565
		Y	0.00602330	-0.04944856	-0.06069971	0.02014485	-0.14872740
		Z	0.01163778	0.02607668	0.01769780	-0.00870378	0.08126123
20	H	X	0.35338113	0.53929840	-0.15559451	0.16915255	0.34757687
		Y	0.04700213	0.01977097	-0.01413718	0.01790996	0.03342201
		Z	0.00372924	-0.01011860	0.01866315	-0.01278648	-0.00881516
21	H	X	0.35338113	-0.53929840	-0.15559451	0.16915255	0.34757687
		Y	0.04700213	-0.01977097	-0.01413718	0.01790996	0.03342201
		Z	-0.00372924	-0.01011860	-0.01866315	0.01278648	0.00881516
22	H	X	0.36330264	-0.10290731	0.41628078	-0.23573947	-0.11046381
		Y	0.01136879	-0.06980735	0.03451454	-0.02108400	-0.02231579
		Z	0.05680218	-0.01032539	0.05788189	-0.03151759	-0.01878615
23	H	X	0.36330264	0.10290731	0.41628078	-0.23573947	-0.11046381
		Y	0.01136879	0.06980735	0.03451454	-0.02108400	-0.02231579
		Z	-0.05680218	-0.01032539	-0.05788189	0.03151759	0.01878615
TRANS. SAYVETZ		X	-0.00085096	0.00000000	-0.00023557	-0.00003705	0.00054053
		Y	-0.00046803	-0.00000000	-0.00029578	0.00037437	0.00035855
		Z	-0.00000000	-0.00025855	-0.00000000	0.00000000	-0.00000000
		TOTAL	0.00097118	0.00025855	0.00037813	0.00037620	0.00064864
ROT. SAYVETZ		X	0.00000000	-0.00048388	-0.00000000	0.00000000	0.00000000
		Y	-0.00000000	0.00366294	0.00000000	0.00000000	0.00000000
		Z	0.00195249	-0.00000000	0.00705462	0.00035393	0.00034377

TOTAL 0.00195249 0.00369476 0.00705462 0.00035393 0.00034377

	51	52	53	54	55
FREQUENCY:	1493.38	1500.73	1525.08	1535.95	1546.53
SYMMETRY:	A'	A'	A'	A'	A'
REDUCED MASS:	2.57712	1.07773	1.10727	1.09617	2.19795

1	N	X	0.10260245	-0.00336821	-0.00412063	0.00047994	0.00877741
		Y	-0.05323202	0.00164893	-0.00636623	-0.00496882	-0.06436737
		Z	-0.00000000	-0.00000000	0.00000000	0.00000000	0.00000000
2	C	X	-0.03377107	0.00111102	0.01307108	0.00593163	0.06370467
		Y	0.07511612	-0.00238161	-0.00113178	0.00129780	0.02191036
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
3	C	X	-0.08541001	0.00358153	-0.00588409	-0.00626601	-0.06977954
		Y	-0.11339026	0.00296908	0.01809998	0.00642751	0.05211866
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
4	C	X	0.03992999	-0.00143749	-0.00210256	-0.00110459	-0.02777409
		Y	0.01578443	0.00013952	-0.01304226	-0.00608185	-0.05499769
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
5	C	X	-0.00323292	-0.00068931	0.02030713	0.01185846	0.13369522
		Y	0.04440901	-0.00185246	0.00473349	0.00308951	0.02421143
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
6	C	X	-0.05021801	0.00205203	-0.00726985	-0.00497272	-0.05022754
		Y	-0.04190193	0.00171356	0.00912245	0.00493760	0.07732269
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
7	C	X	0.05831386	-0.00282171	-0.00886063	0.00145830	0.02365601
		Y	0.01251348	-0.00144224	0.00435792	0.00212367	0.01038965
		Z	-0.00000000	-0.00000000	0.00000000	0.00000000	0.00000000
8	C	X	-0.02145025	-0.00375893	0.04274988	0.01042146	-0.01631298
		Y	-0.01623070	0.01148551	-0.06356037	-0.02350979	0.00917366
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
9	C	X	0.00609861	0.00658904	-0.02068417	-0.00122903	0.00368690
		Y	0.00420701	0.00821423	0.01648143	-0.07776203	0.00447524
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	0.00000000
10	O	X	-0.01130304	0.00019064	0.00382251	0.00116256	0.00423888
		Y	0.00566424	0.00069597	-0.00852088	-0.00285782	-0.01507709
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
11	C	X	-0.00048594	0.00223657	-0.00251276	0.01043601	-0.00038891
		Y	-0.00282816	-0.07178971	-0.00532481	-0.00988099	0.00142445
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
12	N	X	0.00016734	-0.00271635	0.00058284	-0.00125256	0.00003251
		Y	-0.00025410	-0.01223872	-0.00004353	-0.00228809	0.00012929
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
13	N	X	0.00061658	0.01281782	0.00159489	0.00176890	-0.00021812
		Y	-0.00039585	-0.00551094	-0.00107137	-0.00046421	0.00010965
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
14	H	X	-0.10300006	0.00412923	-0.06331899	-0.03464229	-0.34686987
		Y	0.06878071	-0.00200742	-0.02098564	-0.00899555	-0.08189274
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	0.00000000
15	H	X	-0.16388458	0.00472485	-0.01179538	-0.01291116	-0.17630685
		Y	0.20986051	-0.00569358	-0.00799895	0.00282888	0.05955261
		Z	-0.00000000	-0.00000000	0.00000000	-0.00000000	0.00000000
16	H	X	-0.00717148	0.00286656	-0.06369574	-0.03391401	-0.36231247
		Y	0.05564678	-0.00105235	-0.02483851	-0.01281867	-0.15058735
		Z	-0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
17	H	X	0.03326528	-0.00054192	-0.01815346	-0.00973576	-0.11215022
		Y	0.47810564	-0.01492632	-0.04480258	-0.01679191	-0.22204729
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000	-0.00000000
18	H	X	0.05817865	0.01233699	-0.17788099	-0.05707802	0.05469743
		Y	0.04450937	-0.06159358	0.45654580	0.13598005	-0.07698061

19	H	Z	0.03368660	-0.05301394	0.38784875	0.11989656	-0.06899585
		X	0.05817865	0.01233699	-0.17788099	-0.05707802	0.05469743
		Y	0.04450937	-0.06159358	0.45654580	0.13598005	-0.07698061
20	H	Z	-0.03368660	0.05301394	-0.38784875	-0.11989656	0.06899585
		X	-0.02516512	0.00645374	0.06421956	-0.03727827	-0.00847144
		Y	-0.01016016	-0.03731872	-0.16095658	0.49683921	-0.01946037
21	H	Z	-0.00732488	-0.03079028	-0.12971896	0.40122692	-0.01576609
		X	-0.02516512	0.00645374	0.06421956	-0.03727827	-0.00847144
		Y	-0.01016016	-0.03731872	-0.16095658	0.49683921	-0.01946037
22	H	Z	0.00732488	0.03079028	0.12971896	-0.40122692	0.01576609
		X	-0.00396030	-0.11340232	0.00392893	-0.03415514	0.00074230
		Y	0.02172604	0.53262001	0.05297193	0.05260329	-0.01016440
23	H	Z	0.01565488	0.39393505	0.03850871	0.04022206	-0.00775932
		X	-0.00396030	-0.11340232	0.00392893	-0.03415514	0.00074230
		Y	0.02172604	0.53262001	0.05297193	0.05260329	-0.01016440
		Z	-0.01565488	-0.39393505	-0.03850871	-0.04022206	0.00775932

TRANS. SAYVETZ	X	0.00011293	0.00025089	0.00032846	-0.00000286	0.00045457
	Y	0.00001271	0.00068071	-0.00103685	-0.00061827	0.00024541
	Z	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
TOTAL		0.00011365	0.00072547	0.00108763	0.00061828	0.00051658

ROT. SAYVETZ	X	-0.00000000	-0.00000000	-0.00000000	0.00000000	0.00000000
	Y	-0.00000000	0.00000000	-0.00000000	0.00000000	0.00000000
	Z	-0.00087126	-0.00201287	0.00247270	0.00395114	0.00030605
TOTAL		0.00087126	0.00201287	0.00247270	0.00395114	0.00030605

	56	57	58	59	60
FREQUENCY:	1664.15	1686.16	1807.88	2443.21	3070.56
SYMMETRY:	A'	A'	A'	A'	A'
REDUCED MASS:	5.29716	5.69290	11.78917	13.53559	1.06044

1	N	X	-0.01476503	-0.07520990	-0.00300923	-0.00002056	-0.00008124
		Y	-0.05857423	0.03799298	-0.00533043	-0.00001403	0.00006767
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
2	C	X	0.07180013	0.12269483	0.00729650	0.00001389	0.00026232
		Y	0.05604136	0.00586089	0.01353724	0.00004716	-0.00001313
		Z	0.00000000	-0.00000000	-0.00000000	-0.00000000	-0.00000000
3	C	X	-0.03502801	-0.09274620	0.00908932	-0.00007904	0.00008078
		Y	-0.12414501	0.04462531	-0.03823472	-0.00011851	0.00032558
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
4	C	X	-0.01546481	0.13039797	0.00787944	0.00001734	-0.00165370
		Y	0.09322880	-0.08651306	0.00970370	-0.00000027	-0.00142383
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000	-0.00000000
5	C	X	-0.06596720	-0.11537066	-0.01344559	-0.00003223	0.00009557
		Y	-0.08519790	0.00889213	-0.00661927	-0.00002032	0.00007365
		Z	0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
6	C	X	0.04485913	0.04173632	0.00515199	0.00000792	-0.00007013
		Y	0.14228399	-0.02835152	0.00895627	0.00001962	-0.00004867
		Z	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
7	C	X	0.01801227	0.01791238	-0.06810535	0.00009624	-0.00107088
		Y	-0.02022904	-0.00002102	0.21701869	0.00069566	0.00044983
		Z	-0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
8	C	X	0.00153677	-0.00450299	0.00889523	-0.00020976	-0.01195618
		Y	-0.00267771	0.00045460	-0.00812384	-0.00065190	0.06587826
		Z	-0.00000000	-0.00000000	0.00000000	-0.00000000	-0.00000000
9	C	X	-0.00090562	0.00016808	0.00105327	-0.00429704	0.00169340
		Y	-0.00028594	-0.00001255	0.00471990	-0.00019185	-0.00454169
		Z	0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
10	O	X	-0.01086207	0.00129877	0.03759130	0.00008179	0.00017146

		Y	0.02287545	-0.00437020	-0.14082931	-0.00032903	-0.00062420
		Z	0.00000000	-0.00000000	-0.00000000	-0.00000000	-0.00000000
11	C	X	-0.00003452	-0.00007193	-0.00141987	-0.00091560	-0.00002954
		Y	0.00009935	0.00023680	-0.00270485	0.00488876	-0.00038193
		Z	0.00000000	0.00000000	-0.00000000	0.00000000	-0.00000000
12	N	X	0.00003852	-0.00002129	0.00065227	0.16705354	-0.00018901
		Y	0.00007103	-0.00000092	0.00094648	-0.09732533	-0.00019427
		Z	-0.00000000	-0.00000000	-0.00000000	-0.00000000	0.00000000
13	N	X	0.00003620	0.00003307	0.00079445	-0.15897036	0.00000600
		Y	-0.00005609	-0.00002537	-0.00077413	0.09237646	0.00006657
		Z	-0.00000000	0.00000000	0.00000000	0.00000000	-0.00000000
14	H	X	-0.12727242	-0.17147652	-0.01964612	0.00000281	-0.00040681
		Y	0.01159100	-0.06683680	0.01316101	0.00011549	0.00011301
		Z	0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
15	H	X	0.14476294	-0.15142830	0.01137699	0.00009679	0.01557594
		Y	-0.04144033	0.16958244	0.01095623	0.00001741	0.01652646
		Z	0.00000000	0.00000000	0.00000000	-0.00000000	-0.00000000
16	H	X	0.14604327	0.07392630	0.01711872	0.00002310	0.00081742
		Y	-0.02539548	0.08534793	0.00354292	-0.00000109	-0.00243852
		Z	-0.00000000	-0.00000000	0.00000000	-0.00000000	0.00000000
17	H	X	-0.00802455	0.05478073	0.00352680	0.00005841	0.00029742
		Y	-0.23240767	0.01617033	-0.00927210	-0.00001941	-0.00025122
		Z	-0.00000000	-0.00000000	-0.00000000	-0.00000000	-0.00000000
18	H	X	-0.00178891	0.01468482	-0.04198812	0.00121054	0.07059852
		Y	0.01645248	-0.00369220	-0.04119322	-0.00004345	-0.38679892
		Z	0.01425614	-0.00487497	-0.01966427	0.00046566	0.55913804
19	H	X	-0.00178891	0.01468482	-0.04198812	0.00121054	0.07059852
		Y	0.01645248	-0.00369220	-0.04119322	-0.00004345	-0.38679892
		Z	-0.01425614	0.00487497	0.01966427	-0.00046566	-0.55913804
20	H	X	0.00008581	-0.00222955	0.01111278	0.00466137	-0.00157621
		Y	0.00032291	-0.00085379	0.00864357	0.00045901	0.02254847
		Z	0.00052865	-0.00024796	-0.00202040	0.00015241	-0.03457615
21	H	X	0.00008581	-0.00222955	0.01111278	0.00466137	-0.00157621
		Y	0.00032291	-0.00085379	0.00864357	0.00045901	0.02254847
		Z	-0.00052865	0.00024796	0.00202040	-0.00015241	0.03457615
22	H	X	0.00028563	0.00011425	-0.00313011	-0.03049944	-0.00135392
		Y	0.00030662	-0.00029984	-0.00355273	0.00879763	0.00366738
		Z	0.00010222	-0.00045116	-0.00050128	0.01715095	-0.00557681
23	H	X	0.00028563	0.00011425	-0.00313011	-0.03049944	-0.00135392
		Y	0.00030662	-0.00029984	-0.00355273	0.00879763	0.00366738
		Z	-0.00010222	0.00045116	0.00050128	-0.01715095	0.00557681
TRANS. SAYVETZ		X	0.00011916	0.00000114	0.00005896	-0.00002767	0.00006910
		Y	-0.00017633	-0.00009705	0.00001845	-0.00005455	0.00024177
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000	0.00000000
		TOTAL	0.00021282	0.00009705	0.00006178	0.00006117	0.00025145
ROT. SAYVETZ		X	0.00000000	-0.00000000	-0.00000000	-0.00000000	0.00000000
		Y	-0.00000000	-0.00000000	0.00000000	-0.00000000	0.00000000
		Z	-0.00014073	-0.00072587	-0.00016309	0.00022956	0.00017194
		TOTAL	0.00014073	0.00072587	0.00016309	0.00022956	0.00017194
			61	62	63	64	65
FREQUENCY:			3117.28	3118.41	3124.71	3174.60	3196.13
SYMMETRY:			A''	A'	A'	A''	A''
REDUCED MASS:			1.10391	1.05993	1.05736	1.11016	1.11150
1	N	X	0.00000000	-0.00000169	0.00001179	-0.00000000	-0.00000000
		Y	0.00000000	-0.00000915	0.00001117	-0.00000000	-0.00000000
		Z	0.00000400	0.00000000	0.00000000	-0.00000150	-0.00000010

2	C	X	0.00000000	0.00001158	-0.00002609	0.00000000	0.00000000
		Y	-0.00000000	-0.00004019	0.00004748	-0.00000000	-0.00000000
		Z	0.00001249	0.00000000	-0.00000000	0.00000688	-0.00000002
3	C	X	-0.00000000	0.00002991	0.00000041	0.00000000	0.00000000
		Y	0.00000000	-0.00007702	0.00010814	-0.00000000	-0.00000000
		Z	-0.00002018	0.00000000	-0.00000000	-0.00005744	-0.00003973
4	C	X	0.00000000	-0.00014400	0.00023710	-0.00000000	-0.00000000
		Y	0.00000000	-0.00012589	0.00021705	-0.00000000	-0.00000000
		Z	0.00013685	0.00000000	-0.00000000	0.00002233	0.00000807
5	C	X	-0.00000000	0.00001683	-0.00000526	-0.00000000	-0.00000000
		Y	0.00000000	-0.00000472	-0.00002014	0.00000000	0.00000000
		Z	0.00008388	0.00000000	-0.00000000	0.00001199	0.00000481
6	C	X	-0.00000000	0.00000442	0.00002005	-0.00000000	0.00000000
		Y	0.00000000	-0.00000187	-0.00000374	0.00000000	-0.00000000
		Z	-0.00001474	-0.00000000	0.00000000	-0.00000238	-0.00000093
7	C	X	0.00000000	-0.00033174	0.00018216	-0.00000000	-0.00000000
		Y	-0.00000000	0.00058494	-0.00088540	0.00000000	0.00000000
		Z	-0.00085613	-0.00000000	0.00000000	-0.00006656	0.00008556
8	C	X	0.00000000	-0.00014981	0.00047746	-0.00000000	0.00000000
		Y	-0.00000000	0.00188260	-0.00310149	0.00000000	0.00000000
		Z	-0.08816049	-0.00000000	0.00000000	-0.01112553	-0.00417428
9	C	X	0.00000000	-0.00495272	0.00741951	-0.00000000	-0.00000000
		Y	-0.00000000	0.04126309	-0.05194483	0.00000000	0.00000000
		Z	0.01203183	0.00000000	-0.00000000	-0.08179699	-0.03815289
10	O	X	-0.00000000	0.00037702	-0.00043624	0.00000000	0.00000000
		Y	0.00000000	-0.00021201	0.00038441	-0.00000000	-0.00000000
		Z	-0.00016587	-0.00000000	0.00000000	0.00016648	0.00005153
11	C	X	0.00000000	-0.00543951	-0.00329429	0.00000000	-0.00000000
		Y	0.00000000	-0.05189471	-0.03840673	0.00000000	-0.00000000
		Z	-0.00078010	-0.00000000	0.00000000	0.03963951	-0.08373451
12	N	X	-0.00000000	0.00321746	0.00217811	-0.00000000	0.00000000
		Y	0.00000000	-0.00094685	-0.00121522	0.00000000	-0.00000000
		Z	0.00011618	-0.00000000	0.00000000	-0.00026375	0.00077896
13	N	X	0.00000000	-0.00192385	-0.00172273	0.00000000	-0.00000000
		Y	-0.00000000	0.00079194	0.00080937	-0.00000000	0.00000000
		Z	-0.00002499	0.00000000	-0.00000000	0.00016580	-0.00045524
14	H	X	-0.00000000	-0.00025664	0.00030985	-0.00000000	-0.00000000
		Y	0.00000000	0.00053507	-0.00083185	0.00000000	0.00000000
		Z	0.00006246	0.00000000	-0.00000000	0.00004609	0.00002790
15	H	X	-0.00000000	0.00156692	-0.00260106	0.00000000	0.00000000
		Y	-0.00000000	0.00169619	-0.00275159	0.00000000	0.00000000
		Z	-0.00063336	-0.00000000	0.00000000	-0.00004653	0.00002137
16	H	X	0.00000000	0.00002462	-0.00014004	0.00000000	0.00000000
		Y	-0.00000000	-0.00004873	0.00042553	-0.00000000	-0.00000000
		Z	0.00000537	0.00000000	-0.00000000	-0.00001581	0.00000549
17	H	X	0.00000000	-0.00004145	-0.00024322	0.00000000	-0.00000000
		Y	-0.00000000	-0.00004092	0.00004919	-0.00000000	0.00000000
		Z	-0.00020857	-0.00000000	0.00000000	-0.00002090	-0.00000766
18	H	X	0.06884275	0.00223602	-0.00598608	0.01113376	0.00594040
		Y	-0.39451834	-0.01181934	0.02115658	-0.04807563	-0.01927434
		Z	0.52991448	0.01629598	-0.03007108	0.06559791	0.02561265
19	H	X	-0.06884275	0.00223602	-0.00598608	-0.01113376	-0.00594040
		Y	0.39451834	-0.01181934	0.02115658	0.04807563	0.01927434
		Z	0.52991448	-0.01629598	0.03007108	0.06559791	0.02561265
20	H	X	-0.00278379	0.03268500	-0.03801403	0.04851712	0.01892463
		Y	0.05162846	-0.23454581	0.30849677	-0.35244981	-0.16550150
		Z	-0.07127238	0.34239939	-0.44458823	0.48367094	0.22522203
21	H	X	0.00278379	0.03268500	-0.03801403	-0.04851712	-0.01892463
		Y	-0.05162846	-0.23454581	0.30849677	0.35244981	0.16550150
		Z	-0.07127238	-0.34239939	0.44458823	0.48367094	0.22522203

22	H	X	-0.00124686	0.01767640	0.01572142	0.00762235	-0.02910805
		Y	-0.00330916	0.29821091	0.23113780	0.15794858	-0.34446179
		Z	0.00410950	-0.45444434	-0.34842987	-0.23224161	0.49655044
23	H	X	0.00124686	0.01767640	0.01572142	-0.00762235	0.02910805
		Y	0.00330916	0.29821091	0.23113780	-0.15794858	0.34446179
		Z	0.00410950	0.45444434	0.34842987	-0.23224161	0.49655044

TRANS. SAYVETZ	X	-0.00000000	-0.00001751	0.00000140	-0.00000000	-0.00000000
	Y	-0.00000000	0.00000760	-0.00002844	0.00000000	0.00000000
	Z	-0.00015407	-0.00000000	0.00000000	-0.00016952	-0.00017670
	TOTAL	0.00015407	0.00001909	0.00002847	0.00016952	0.00017670

ROT. SAYVETZ	X	0.00059198	0.00000000	-0.00000000	-0.00001147	0.00002143
	Y	-0.00021168	-0.00000000	0.00000000	-0.00080502	-0.00125572
	Z	-0.00000000	-0.00057691	-0.00021739	-0.00000000	-0.00000000
	TOTAL	0.00062868	0.00057691	0.00021739	0.00080510	0.00125590

		66	67	68	69
FREQUENCY:		3208.92	3217.01	3233.15	3240.21
SYMMETRY:		A'	A'	A'	A'
REDUCED MASS:		1.08935	1.09216	1.09265	1.09843

1	N	X	-0.00020829	0.00063710	-0.00083270	-0.00034336
		Y	0.00004779	-0.00032718	0.00093942	0.00028712
		Z	-0.00000000	0.00000000	-0.00000000	0.00000000
2	C	X	0.00054519	-0.00020008	0.01917619	-0.00277377
		Y	0.00024658	0.00453441	-0.08075453	0.01124572
		Z	0.00000000	0.00000000	0.00000000	-0.00000000
3	C	X	-0.00134005	-0.00050467	0.00213065	-0.00071107
		Y	0.00289117	0.00114888	0.00247368	0.00102213
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000
4	C	X	-0.04949541	-0.01909807	-0.00364160	-0.01721068
		Y	-0.05693451	-0.02062035	-0.00263132	-0.01425856
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000
5	C	X	-0.00690846	0.01033497	0.00407507	0.02480164
		Y	0.02560131	-0.01662528	-0.01084485	-0.07322472
		Z	0.00000000	-0.00000000	0.00000000	0.00000000
6	C	X	0.01971020	-0.07540326	-0.00148887	0.02983119
		Y	-0.00351370	0.01195483	0.00137778	-0.00134276
		Z	0.00000000	-0.00000000	0.00000000	0.00000000
7	C	X	-0.00036875	-0.00020900	-0.00005178	-0.00021777
		Y	-0.00045549	-0.00013277	-0.00133993	0.00007655
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000
8	C	X	0.00007041	0.00001707	-0.00012993	0.00004414
		Y	-0.00126722	-0.00042977	0.00002530	-0.00018954
		Z	-0.00000000	-0.00000000	0.00000000	-0.00000000
9	C	X	0.00009362	0.00003558	-0.00000800	0.00002564
		Y	-0.00006418	-0.00002578	-0.00010935	0.00001136
		Z	0.00000000	-0.00000000	-0.00000000	0.00000000
10	O	X	0.00022929	0.00005896	0.00038687	0.00005527
		Y	-0.00003875	-0.00004966	0.00057429	-0.00012943
		Z	0.00000000	0.00000000	-0.00000000	-0.00000000
11	C	X	0.00002967	0.00001788	0.00000751	-0.00000503
		Y	-0.00001922	-0.00001352	0.00001485	0.00000684
		Z	0.00000000	-0.00000000	0.00000000	-0.00000000
12	N	X	0.00000411	-0.00000936	-0.00002023	0.00000543
		Y	0.00000565	0.00000498	-0.00000420	0.00000278
		Z	-0.00000000	0.00000000	0.00000000	-0.00000000
13	N	X	0.00000363	0.00000706	0.00000255	-0.00000200
		Y	-0.00000313	-0.00000394	0.00000208	-0.00000231

		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000
14	H	X	-0.00158989	0.01439761	-0.23558140	0.03112663
		Y	0.00137946	-0.05749590	0.91288801	-0.12185153
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000
15	H	X	0.58052588	0.21224634	0.03389791	0.15914284
		Y	0.64375716	0.23423639	0.03621507	0.17031433
		Z	-0.00000000	-0.00000000	-0.00000000	0.00000000
16	H	X	0.10416827	-0.07861986	-0.04269292	-0.27844073
		Y	-0.30646021	0.20985960	0.12190943	0.81074292
		Z	-0.00000000	-0.00000000	0.00000000	0.00000000
17	H	X	-0.22995872	0.85617069	0.01126397	-0.30909245
		Y	0.03974750	-0.14783407	-0.00233296	0.04847660
		Z	0.00000000	-0.00000000	0.00000000	0.00000000
18	H	X	-0.00224854	-0.00075237	0.00006963	-0.00049433
		Y	0.00893625	0.00303853	0.00062409	0.00140561
		Z	-0.01281586	-0.00441109	-0.00073303	-0.00195426
19	H	X	-0.00224854	-0.00075237	0.00006963	-0.00049433
		Y	0.00893625	0.00303853	0.00062409	0.00140561
		Z	0.01281586	0.00441109	0.00073303	0.00195426
20	H	X	-0.00056763	-0.00020267	-0.00016265	-0.00010716
		Y	0.00118179	0.00043795	0.00042056	0.00015188
		Z	-0.00162327	-0.00059824	-0.00064553	-0.00022338
21	H	X	-0.00056763	-0.00020267	-0.00016265	-0.00010716
		Y	0.00118179	0.00043795	0.00042056	0.00015188
		Z	0.00162327	0.00059824	0.00064553	0.00022338
22	H	X	0.00008539	0.00003643	0.00004198	0.00001068
		Y	0.00012239	0.00008385	0.00003858	-0.00008242
		Z	-0.00014137	-0.00011081	-0.00003111	0.00011357
23	H	X	0.00008539	0.00003643	0.00004198	0.00001068
		Y	0.00012239	0.00008385	0.00003858	-0.00008242
		Z	0.00014137	0.00011081	0.00003111	-0.00011357
TRANS. SAYVETZ		X	0.00008335	-0.00008176	0.00007151	-0.00002765
		Y	-0.00007221	-0.00006261	0.00007568	-0.00012060
		Z	0.00000000	-0.00000000	0.00000000	0.00000000
		TOTAL	0.00011028	0.00010298	0.00010412	0.00012373
ROT. SAYVETZ		X	0.00000000	0.00000000	-0.00000000	-0.00000000
		Y	-0.00000000	0.00000000	-0.00000000	-0.00000000
		Z	-0.00022695	-0.00029841	0.00092995	-0.00073920
		TOTAL	0.00022695	0.00029841	0.00092995	0.00073920

REFERENCE ON SAYVETZ CONDITIONS - A. SAYVETZ, J.CHEM.PHYS., 7, 383-389(1939).

NOTE - THE MODES J,K ARE ORTHONORMALIZED ACCORDING TO

$$\text{SUM ON I } M(I) * (X(I, J)*X(I, K) + Y(I, J)*Y(I, K) + Z(I, J)*Z(I, K)) = \text{DELTA}(J, K)$$