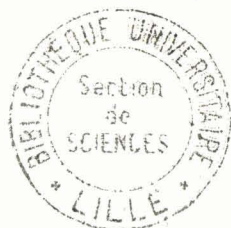


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Gérard VERGOTEN

CONTRIBUTION A L'ETUDE STRUCTURALE
DE LA STASE MESOMORPHE NEMATIQUE



SPECTRES DE VIBRATION DE LA

N (p. methoxy) BENZYLIDENE (p.n butyl) ANILINE



030 035596 4

ANNEXES

ANNEXES

A.I. Benzène d₀

A.I.1 } distribution d'énergie potentielle suivant les
A.I.2 } coordonnées de symétrie.

A.I.3 }
A.I.4 } distribution d'énergie potentielle suivant les
A.I.5 } constantes de force.
A.I.6 }
A.I.7 }

A.II. Benzène d₆

A.II.1 } distribution d'énergie potentielle suivant les
A.II.2 } coordonnées de symétrie.

A.II.3 }
A.II.4 } distribution d'énergie potentielle suivant les
A.II.5 } constantes de force.
A.II.6 }
A.II.7 }

A.III. Benzène d₃

A.III.1 } distribution d'énergie potentielle suivant les
A.III.2 } coordonnées de symétrie.

A.III.3 }
A.III.4 } distribution d'énergie potentielle suivant les
A.III.5 } constantes de force.
A.III.6 }
A.III.7 }

A.IV. Valeurs propres et vecteurs propres de la matrice J.W.J.

A.V. Vecteurs propres et valeurs propres de la matrice J.W.J. pour l'ensemble des constantes raffinées

- A.V.1 matrice J.W.J.
- A.V.2 matrice P
- A.V.3 matrice de corrélation
- A.V.4 constantes de force intrinsèques et dispersion

A.VI. Benzylidène-aniline

- A.VI.1 }
A.VI.2 }
A.VI.3 }
A.VI.4 } distribution d'énergie potentielle suivant les
A.VI.5 } coordonnées de symétrie.
A.VI.6 }
A.VI.7 }
A.VI.8 }

- A.VI.9 }
A.VI.10 }
A.VI.11 }
A.VI.12 } distribution d'énergie potentielle suivant les
A.VI.13 } constantes de force.
A.VI.14 }
A.VI.15 }
A.VI.16 }

A.VII. Géométrie de la benzylidène-aniline

- A.VII.1 }
A.VII.2 } coordonnées cartésiennes, moments principaux
A.VII.3 } d'inertie, constantes rotationnelles et paramètres
 } d'asymétrie.

AI1

POTENTIAL ENERGY DISTRIBUTION
MELFOLLE-ISOTCPE NO. 1-1

SYM. BLOCK NO. 1

FREQUENCIES		3072.321	3067.535	3067.515	3056.418	3054.327	3054.320	1598.545	159E.544	1482.837	1482.828
S 1	ST1	16.69	0.0	33.45	16.85	0.0	33.77	0.00	0.0	0.0	0.00
S 2	ST16	0.0	0.01	0.0	0.0	0.01	0.0	0.0	9.18	23.01	0.0
S 3	ST2	0.00	0.0	33.36	67.17	0.0	0.00	0.00	0.0	0.0	0.00
S 4	ST4	66.97	0.0	0.00	0.00	0.0	33.86	0.00	0.0	0.0	0.00
S 5	ST5	0.00	0.0	0.00	0.00	0.0	0.16	72.80	0.0	0.0	0.00
S 6	ST6	0.00	0.0	0.58	0.00	0.0	0.00	0.00	0.0	0.0	37.34
S 7	ST7	0.00	0.0	0.00	0.00	0.0	0.04	28.63	0.0	0.0	0.00
S 8	ST8	0.00	0.0	0.04	0.00	0.0	0.00	0.00	0.0	0.0	69.96
S 9	ST9	0.00	0.0	0.00	1.00	0.0	0.00	0.00	0.0	0.0	0.00
S10	ST10	0.87	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.0	0.00
S11	ST11	0.00	0.0	0.00	0.00	0.0	0.50	11.41	0.0	0.0	0.00
S12	ST12	0.0	100.97	0.0	0.0	0.00	0.0	0.0	0.00	0.00	0.0
S13	ST13	0.0	0.00	0.0	0.0	100.68	0.0	0.0	0.00	0.00	0.0
S14	ST14	0.0	0.00	0.0	0.0	0.16	0.0	0.0	72.80	0.00	0.0
S15	ST15	0.0	0.53	0.0	0.0	0.00	0.0	0.0	0.00	37.34	0.0
S16	ST17	0.0	0.00	0.0	0.0	0.00	0.0	0.0	0.00	0.00	0.0
S17	ST18	0.0	0.00	0.0	0.0	0.01	0.0	0.0	9.18	0.00	0.0
S18	ST19	0.0	0.01	0.0	0.0	0.00	0.0	0.0	0.00	21.86	0.0
S19	ST21	0.0	0.00	0.0	0.0	0.50	0.0	0.0	11.41	0.00	0.0
S20	ST20	0.0	0.01	0.0	0.0	0.01	0.0	0.0	9.18	23.02	0.0
S21	ST3	16.67	0.0	33.47	16.87	0.0	33.75	0.00	0.0	0.0	0.00

FREQUENCIES		1353.980	1298.755	1191.793	1191.792	1156.453	1024.458	1024.451	1013.333	569.105	601.309
S 1	ST1	0.0	0.0	0.01	0.0	0.0	0.0	0.03	0.02	0.00	0.0
S 2	ST16	17.06	4.36	0.0	23.34	14.55	10.04	0.0	0.0	0.0	0.11
S 3	ST2	0.0	0.0	0.00	0.0	0.0	0.0	0.03	0.08	0.00	0.0
S 4	ST4	0.0	0.0	0.01	0.0	0.0	0.0	0.00	0.00	0.00	0.0
S 5	ST5	0.0	0.0	16.15	0.0	0.0	0.0	0.00	0.00	0.00	0.0
S 6	ST6	0.0	0.0	0.00	0.0	0.0	0.0	63.66	0.00	0.00	0.0
S 7	ST7	0.0	0.0	72.79	0.0	0.0	0.0	0.00	0.00	0.00	0.0
S 8	ST8	0.0	0.0	0.00	0.0	0.0	0.0	30.51	0.00	0.00	0.0
S 9	ST9	0.0	0.0	0.00	0.0	0.0	0.0	0.00	59.42	0.00	0.0
S10	ST10	0.0	0.0	0.00	0.0	0.0	0.0	0.00	0.00	100.04	0.0
S11	ST11	0.0	0.0	2.21	0.0	0.0	0.0	0.00	0.00	0.00	0.0
S12	ST12	0.00	0.00	0.0	0.00	0.00	0.09	0.0	0.0	0.0	0.00
S13	ST13	0.00	0.00	0.0	0.04	0.00	0.00	0.0	0.0	0.0	0.01
S14	ST14	0.00	0.00	0.0	16.15	0.00	0.00	0.0	0.0	0.0	12.98
S15	ST15	0.00	0.00	0.0	0.00	0.00	63.66	0.0	0.0	0.0	0.00
S16	ST17	0.00	95.00	0.0	0.00	9.12	0.00	0.0	0.0	0.0	0.00
S17	ST18	68.09	0.00	0.0	23.29	0.00	0.00	0.0	0.0	0.0	0.10
S18	ST19	0.00	16.56	0.0	0.00	55.26	9.53	0.0	0.0	0.0	0.00
S19	ST21	0.00	0.00	0.0	2.21	0.00	0.00	0.0	0.0	0.0	86.33
S20	ST20	17.06	4.36	0.0	23.34	14.55	10.04	0.0	0.0	0.0	0.11
S21	ST3	0.0	0.0	0.01	0.0	0.0	0.0	0.03	0.02	0.00	0.0

FREQUENCIES		601.307
S 1	ST1	0.00
S 2	ST16	0.0
S 3	ST2	0.00
S 4	ST4	0.00
S 5	ST5	12.99
S 6	ST6	0.00
S 7	ST7	0.33
S 8	ST8	0.00
S 9	ST9	0.00
S10	ST10	0.00
S11	ST11	86.33
S12	ST12	0.0
S13	ST13	0.0
S14	ST14	0.0
S15	ST15	0.0
S16	ST17	0.0
S17	ST18	0.0
S18	ST19	0.0
S19	ST21	0.0
S20	ST20	0.0
S21	ST3	0.00



AI₂

POTENTIAL ENERGY DISTRIBUTION

MOLECULE-ISOTOPE NO. 1- 1

SYM. BLOCK NO. 2

	FREQUENCIES	991.205	966.657	966.651	847.025	847.020	705.799	674.176	396.892	396.891	0.0
S 1	ST29	14.56	0.0	27.41	0.0	24.31	4.70	16.45	0.0	6.36	0.0
S 2	ST22	0.0	84.10	0.0	0.0	0.0	0.0	0.0	19.51	0.0	0.0
S 3	ST23	0.0	0.0	0.0	73.77	0.0	0.0	0.0	0.0	0.0	0.0
S 4	ST24	0.0	36.60	0.0	0.0	0.0	0.0	0.0	67.00	0.0	0.0
S 5	ST RED1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S 6	ST RED2	0.0	0.0	0.0	32.36	0.0	0.0	0.0	0.0	0.0	0.0
S 7	ST RED3	0.00	0.0	0.0	0.0	32.36	0.00	0.00	0.0	0.0	0.0
S 8	ST26	0.00	0.0	27.86	0.0	0.00	0.00	66.87	0.0	6.46	0.0
S 9	ST25	55.25	0.0	0.00	0.0	23.07	17.83	0.00	0.0	0.00	0.0
S10	ST28	50.03	0.0	0.00	0.0	0.00	55.99	0.00	0.0	0.00	0.0
S11	ST30	0.00	0.0	36.60	0.0	0.00	0.00	0.00	0.0	67.00	0.0
S12	ST27	14.56	0.0	27.41	0.0	24.31	4.70	16.44	0.0	6.36	0.0

	FREQUENCIES	0.0	0.0
S 1	ST29	0.0	0.0
S 2	ST22	0.0	0.0
S 3	ST23	0.0	0.0
S 4	ST24	0.0	0.0
S 5	ST RED1	0.0	0.0
S 6	ST RED2	0.0	0.0
S 7	ST RED3	0.0	0.0
S 8	ST26	0.0	0.0
S 9	ST25	0.0	0.0
S10	ST28	0.0	0.0
S11	ST30	0.0	0.0
S12	ST27	0.0	0.0

PED FOR FORCE CONSTANTS
MOLECULE-ISOTOPE NO. 1-1

SYM. BLOCK NO. 1

AI3

FREQUENCIES ASSIGNMENT (PED)	3072.321 ST4	3067.535 ST12	3067.515 ST3	3056.418 ST2	3054.327 ST13	3054.320 ST4	1598.545 ST5	1598.544 ST14	1482.837 ST15	1482.828 ST8
ASSIGNMENT (PED)	ST1	ST12	ST1	ST3	ST13	ST1	ST7	ST21	ST2C	ST6
1 K(CH)	90.378	90.651	90.651	91.310	91.440	91.441	0.002	C.002	C.003	0.003
2 K(CD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C.0	0.0	0.0
3 O(CH)	0.928	0.465	0.465	-0.538	-0.470	-0.470	-0.000	-C.000	C.000	0.000
4 C(CD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
7 P(CH)	-0.0060	0.116	0.116	0.117	-0.117	-0.117	-0.000	-C.000	C.000	0.000
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
9 H(CCH)	0.1701	0.031	0.031	0.129	0.093	0.093	19.165	15.165	44.698	44.656
10 O(CCH)	0.0015	0.000	0.000	-0.000	-0.000	-0.000	-0.151	-C.151	C.378	0.378
11 M(CCH)	-0.0070	0.001	0.001	0.000	0.001	0.001	0.725	C.725	1.817	1.817
12 P(CCH)	0.0049	-0.001	-0.001	0.000	0.001	0.001	0.511	C.511	-1.280	-1.280
13 K(CCC)	5.2499	0.419	0.419	0.000	0.137	0.137	62.758	62.755	26.917	26.917
14 C(CCC)	0.4954	0.040	0.040	0.000	-0.013	-0.013	-5.922	-5.922	2.540	2.540
15 M(CCC)	-0.2115	0.017	0.017	-0.003	0.006	0.006	2.528	2.528	1.084	1.084
16 P(CCC)	0.3528	-0.028	-0.028	0.009	0.009	0.009	4.217	4.217	-1.809	-1.809
17 H(CCCC)	0.4189	0.033	0.033	0.637	0.327	0.327	7.428	7.428	2.148	2.147
18 C(CCCC)	-0.0090	-0.001	-0.001	C.041	0.011	0.011	0.239	C.239	-C.065	-0.069
19 M(CCCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
20 P(CCCC)	0.0	0.0	C.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
21 F(CCH)	0.3845	8.233	8.233	8.584	8.536	8.536	7.900	7.900	22.090	22.090
22 F(CCC)	0.2417	0.023	0.023	0.119	0.039	0.039	3.600	C.600	1.487	1.487
23 A	0.3850	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
24 B	0.4238	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
25 C	0.0377	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
26 D	-0.0067	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
27 AO	0.0054	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
28 AM	-0.0066	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
30 BC	0.0732	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
31 BM	0.0761	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
32 BP	0.0365	0.0	0.0	0.0	0.0	0.0	0.0	C.0	C.0	0.0
PEDSUM	100.000	100.000	100.000	100.000	100.000	100.000	100.001	100.001	100.000	100.001



FREQUENCIES ASSIGNMENT (PED)		1353.980 ST18	1298.755 ST17	1191.793 ST7	1191.792 ST20	1156.453 ST19	1024.458 ST15	1024.451 ST6	1013.333 ST9	989.105 ST10	601.309 ST21
ASSIGNMENT (PED)		ST16	ST19	ST5	ST16	ST16	ST16	ST8			ST14
1 K(CH)	4.6740	0.000	0.000	0.034	0.034	0.000	0.083	0.083	0.112	0.000	0.008
2 K(CD)	4.8082	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 C(CH)	0.0240	0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.001	0.000	-0.000
4 C(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 F(CCH)	0.1701	65.622	16.767	45.184	45.185	55.950	20.046	20.046	12.867	0.000	11.608
10 C(CCH)	0.0015	1.120	-0.286	-0.383	-0.383	-0.955	0.165	0.165	-0.000	0.000	-0.002
11 M(CCH)	-0.0070	-5.386	-1.376	1.842	1.842	-4.593	0.792	0.792	0.000	0.000	0.008
12 P(CCH)	0.0049	1.897	-0.485	1.298	1.298	-1.618	-0.558	-0.558	0.000	-0.000	0.006
13 K(CC)	5.2499	0.000	122.615	13.922	13.922	11.776	45.886	45.886	0.000	69.986	11.193
14 C(CC)	0.4954	-0.000	-23.142	-1.314	-1.314	-2.223	4.330	4.330	-0.000	13.209	-1.056
15 M(CC)	-0.2115	-0.000	-9.878	0.561	0.561	-0.949	1.848	1.848	0.000	-5.638	0.451
16 P(CC)	0.3528	-0.000	-8.239	0.936	0.936	-0.791	-3.083	-3.083	0.000	4.703	0.752
17 H(CCC)	0.4189	0.000	0.000	1.441	1.441	0.000	3.661	3.661	63.381	0.000	56.186
18 O(CCC)	-0.0090	-0.000	0.000	0.046	0.046	0.000	-0.118	-0.118	4.086	-0.000	1.811
19 M(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 F(CH)	0.3845	36.747	4.590	36.299	36.299	43.456	24.413	24.413	7.670	8.074	4.963
22 F(CC)	0.2417	0.000	-0.565	0.134	0.134	-0.054	2.535	2.535	11.886	9.666	14.071
23 A	0.3850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24 B	0.4238	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 C	0.0377	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26 D	-0.0067	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27 AO	0.0054	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28 AM	-0.0066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 BO	0.0732	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31 BM	0.0761	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32 BP	0.0365	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PEDSUM		100.000	100.000	100.000	100.000	100.000	100.001	100.000	100.000	100.000	100.000

AI₄

AI5

	FREQUENCIES ASSIGNMENT (PED)	601.307 ST11
	ASSIGNMENT (PED)	ST5
1	K(CH)	4.6740 0.008
2	K(CD)	4.8082 0.0
3	O(CH)	0.0240 -0.000
4	O(CD)	0.0420 0.0
5	M(CH)	0.0 0.0
6	M(CD)	0.0060 0.0
7	P(CH)	-0.0060 -0.000
8	P(CD)	-0.0080 0.0
9	H(CCH)	0.1701 11.638
10	C(CCH)	0.0015 -0.002
11	M(CCH)	-0.0070 0.008
12	P(CCH)	0.0049 0.006
13	K(CC)	5.2499 11.193
14	C(CC)	0.4954 -1.056
15	M(CC)	-0.2115 0.451
16	P(CC)	0.3528 0.752
17	H(CCC)	0.4189 56.186
18	C(CCC)	-0.0090 1.811
19	M(CCC)	0.0 0.0
20	P(CCC)	0.0 0.0
21	F(CH)	0.3845 4.963
22	F(CC)	0.2417 14.071
23	A	0.3850 0.0
24	B	0.4238 0.0
25	C	0.0377 0.0
26	D	-0.0067 0.0
27	AO	0.0054 0.0
28	AM	-0.0066 0.0
29	AP	0.0076 0.0
30	BC	0.0732 0.0
31	BM	0.0761 0.0
32	BP	0.0365 0.0
	PEDSUM	100.000



PEP FOR FORCE CONSTANTS

MOLECULE-ISOTOPE NO. 1-1

SYM. BLOCK NO. 2

[illegible]

AI7

FREQUENCIES ASSIGNMENT (PED)	ASSIGNMENT (PED)	0.0	0.0
1 K(ICH)	4.6740	0.0	0.0
2 K(ICD)	4.8082	0.0	0.0
3 C(ICH)	0.0240	0.0	0.0
4 C(ICD)	0.0420	0.0	0.0
5 M(ICH)	0.0	0.0	0.0
6 M(ICD)	0.0060	0.0	0.0
7 P(ICH)	-0.0060	0.0	0.0
8 P(ICD)	-0.0080	0.0	0.0
9 H(CCH)	0.1701	0.0	0.0
10 G(CCH)	0.0015	0.0	0.0
11 M(CCH)	-0.0070	0.0	0.0
12 P(CCH)	0.0049	0.0	0.0
13 K(CCC)	5.2499	0.0	0.0
14 O(CCC)	0.4954	0.0	0.0
15 M(CCC)	-0.2115	0.0	0.0
16 P(CCC)	0.3528	0.0	0.0
17 H(CCCC)	0.4185	0.0	0.0
18 C(CCCC)	-0.0090	0.0	0.0
19 M(CCCC)	0.0	0.0	0.0
20 P(CCCC)	0.0	0.0	0.0
21 F(CCH)	0.3845	0.0	0.0
22 F(CCC)	0.2417	0.0	0.0
23 A	0.3850	0.0	0.0
24 B	0.4238	0.0	0.0
25 C	0.0377	0.0	0.0
26 D	-0.0067	0.0	0.0
27 A0	0.0054	0.0	0.0
28 AM	-0.0066	0.0	0.0
29 AP	0.0076	0.0	0.0
30 B0	0.0732	0.0	0.0
31 BM	0.0761	0.0	0.0
32 BP	0.0365	0.0	0.0
PEDSUM		0.0	0.0



POTENTIAL ENERGY DISTRIBUTION
MOLECULE-ISOTCPE NO. 1- 2

SYM. BLOCK NO. 1

A II₁

	FREQUENCIES	2293.172	2289.546	2284.887	2284.887	2280.212	2280.206	1557.114	1557.114	1341.305	1341.297
S 1	ST1	16.55	16.54	33.31	0.0	33.36	0.0	0.0	0.28	0.19	0.0
S 2	ST16	0.0	0.0	0.0	0.08	0.0	0.09	4.57	0.0	0.0	12.95
S 3	ST2	0.00	66.01	33.19	0.0	0.00	0.0	0.0	0.00	0.15	0.0
S 4	ST4	66.36	0.00	0.00	0.0	33.49	0.0	0.0	0.28	0.00	0.0
S 5	ST5	0.00	0.00	0.00	0.0	1.31	0.0	0.0	82.27	0.00	0.0
S 6	ST6	0.00	0.00	2.80	0.0	0.00	0.0	0.0	0.00	66.03	0.0
S 7	ST7	0.00	0.00	0.00	0.0	0.28	0.0	0.0	14.25	0.00	0.0
S 8	ST8	0.00	0.00	0.25	0.0	0.00	0.0	0.0	0.00	39.36	0.0
S 9	ST9	0.00	3.96	0.00	0.0	0.00	0.0	0.0	0.00	0.00	0.0
S10	ST10	3.46	0.00	0.00	0.0	0.00	0.0	0.0	0.00	0.00	0.0
S11	ST11	0.00	0.00	0.00	0.0	2.19	0.0	0.0	11.16	0.00	0.0
S12	ST12	0.0	0.0	0.0	100.46	0.0	0.00	0.00	0.0	0.0	0.58
S13	ST13	0.0	0.0	0.0	0.00	0.0	99.52	0.85	0.0	0.0	0.00
S14	ST14	0.0	0.0	0.0	0.00	0.0	1.31	82.27	0.0	0.0	1.00
S15	ST15	0.0	0.0	0.0	2.80	0.0	0.00	0.00	0.0	0.0	66.03
S16	ST17	0.0	0.0	0.0	0.00	0.0	0.00	0.00	0.0	0.0	0.00
S17	ST18	0.0	0.0	0.0	0.00	0.0	0.09	4.56	0.0	0.0	0.00
S18	ST19	0.0	0.0	0.0	0.08	0.0	0.00	0.00	0.0	0.0	12.95
S19	ST21	0.0	0.0	0.0	0.00	0.0	2.19	11.16	0.0	0.0	0.00
S20	ST20	0.0	0.0	0.0	0.00	0.0	0.09	4.57	0.0	0.0	12.95
S21	ST3	16.54	16.58	33.29	1.0	33.36	0.0	0.0	0.28	0.19	0.0

	FREQUENCIES	1290.778	1153.162	969.454	949.568	857.865	857.865	823.171	800.037	800.031	582.413
S 1	ST1	0.0	0.0	0.31	0.14	0.01	0.0	0.0	0.00	0.00	0.0
S 2	ST16	1.00	17.06	0.0	0.0	0.0	27.82	17.24	0.0	20.03	0.17
S 3	ST2	0.0	0.0	1.23	0.00	0.00	0.0	0.0	0.00	0.0	0.0
S 4	ST4	0.0	0.0	0.00	0.58	0.01	0.0	0.0	0.00	0.0	0.0
S 5	ST5	0.0	0.0	0.00	0.00	6.55	0.0	0.0	0.00	0.0	0.0
S 6	ST6	0.0	0.0	0.00	0.00	0.00	0.0	0.0	32.71	0.0	0.0
S 7	ST7	0.0	0.0	0.00	0.00	86.73	0.0	0.0	0.00	0.0	0.0
S 8	ST8	0.0	0.0	0.00	0.00	0.00	0.0	0.0	60.90	0.0	0.0
S 9	ST9	0.0	0.0	96.45	0.00	0.00	0.0	0.0	0.00	0.0	0.0
S10	ST10	0.0	0.0	0.00	97.42	0.00	0.0	0.0	0.00	0.0	0.0
S11	ST11	0.0	0.0	0.00	0.00	0.48	0.0	0.0	0.00	0.0	0.0
S12	ST12	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00
S13	ST13	0.00	0.00	0.0	0.0	0.0	0.03	0.00	0.0	0.00	0.32
S14	ST14	0.00	0.00	0.0	0.0	0.0	6.55	0.00	0.0	0.00	11.96
S15	ST15	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	32.71	0.00
S16	ST17	103.07	0.00	0.0	0.0	0.0	0.00	1.05	0.0	0.00	0.00
S17	ST18	0.00	68.09	0.0	0.0	0.0	27.75	0.00	0.0	0.00	0.17
S18	ST19	6.21	0.00	0.0	0.0	0.0	0.00	65.51	0.0	19.03	0.00
S19	ST21	0.00	0.00	0.0	0.0	0.0	0.48	0.00	0.0	0.00	86.60
S20	ST20	1.06	17.06	0.0	0.0	0.0	27.82	17.24	0.0	20.03	0.17
S21	ST3	0.0	0.0	0.31	0.14	0.01	0.0	0.0	0.00	0.00	0.0

	FREQUENCIES	582.412
S 1	ST1	0.11
S 2	ST16	0.0
S 3	ST2	0.00
S 4	ST4	0.11
S 5	ST5	11.96
S 6	ST6	0.00
S 7	ST7	0.52
S 8	ST8	0.00
S 9	ST9	0.00
S10	ST10	0.00
S11	ST11	86.60
S12	ST12	0.0
S13	ST13	0.0
S14	ST14	0.0
S15	ST15	0.0
S16	ST17	0.0
S17	ST18	0.0
S18	ST19	0.0
S19	ST21	0.0
S20	ST20	0.0
S21	ST3	0.11



PED FOR FORCE CONSTANTS
MOLECULE-ISOTOPE NO. 1- 2

SYM. BLOCK NO. 1

AII3

FREQUENCIES ASSIGNMENT (PED)	2293.172 ST4	2289.546 ST2	2284.887 ST1	2280.212 ST4	2280.206 ST13	1557.114 ST14	1557.114 ST5	1241.305 ST6	1341.297 ST15
ASSIGNMENT (PED)	ST1	ST3	ST3	ST1	ST13	ST14	ST7	ST8	ST20
1 K(CH)	4.674C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 K(CD)	4.8082	89.843	89.959	90.451	90.621	0.770	0.0	0.0	0.518
3 C(CH)	0.0240	0.857	-0.858	0.451	-0.452	-0.004	-0.004	0.073	0.003
4 O(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	-0.112	0.112	0.113	-0.113	-0.001	-0.001	0.001	0.001
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 H(CCH)	0.1701	0.000	0.513	0.152	0.463	10.266	10.266	25.672	25.672
10 D(CCH)	0.0015	-0.000	-0.000	0.001	-0.001	-0.075	-0.075	0.212	0.212
11 M(CCH)	-0.0070	0.000	0.000	0.007	0.007	0.361	0.361	1.022	1.022
12 P(CCH)	0.0049	0.000	0.000	-0.005	0.005	0.254	0.254	-0.720	-0.720
13 K(CD)	5.2499	2.422	0.000	2.022	1.128	70.922	70.922	47.601	47.601
14 O(CD)	0.4954	0.457	0.000	0.191	-0.106	-6.693	-6.693	4.492	4.492
15 M(CD)	-0.2115	-0.195	-0.000	0.081	0.045	2.857	2.857	1.917	1.917
16 P(CD)	0.3528	0.163	0.000	-0.136	0.076	4.766	4.766	-3.199	-3.199
17 F(CCC)	0.4189	0.000	2.526	0.161	1.428	7.267	7.267	3.798	3.798
18 O(CCC)	-0.0090	0.000	0.163	-0.005	0.046	0.234	0.234	-0.122	-0.122
19 M(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 F(CH)	0.3845	6.192	7.151	6.365	6.714	8.394	8.394	16.177	16.177
22 F(CD)	0.2417	0.335	0.474	0.112	0.142	0.683	0.683	2.630	2.630
23 A	0.3850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24 B	0.4238	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 C	0.0377	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26 D	-0.0067	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27 AG	0.0054	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28 AM	-0.0066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 BC	0.0732	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31 BM	0.0761	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32 BP	0.0365	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PEDSUM	100.000	100.000	100.000	100.001	100.001	100.001	100.001	100.001	100.001



АИ₅

FRECUENCIES		582.412
ASSIGNMENT		ST11
(PED)		
ASSIGNMENT		ST5
(PED)		
1 K(CH)	4.6740	0.0
2 K(CD)	4.8082	0.288
3 C(CH)	0.0240	-0.001
4 C(CD)	0.0420	0.0
5 M(CH)	0.0	0.0
6 M(CD)	-0.0060	0.0
7 P(CH)	-0.0060	-0.000
8 P(CD)	-0.0080	0.0
9 H(CCH)	0.1701	11.763
10 C(CCH)	0.0015	-0.003
11 M(CCH)	-0.0070	0.013
12 P(CCH)	0.0049	0.009
13 K(CC)	5.2499	10.310
14 C(CC)	0.4954	-0.973
15 M(CC)	-0.2115	0.415
16 P(CC)	0.3528	0.693
17 H(CCC)	0.4189	56.365
18 C(CCC)	-0.0090	1.817
19 M(CCC)	0.0	0.0
20 P(CCC)	0.0	0.0
21 F(CH)	0.3845	5.349
22 F(CC)	0.2417	13.954
23 A	0.3850	0.0
24 B	0.4238	0.0
25 C	0.0377	0.0
26 D	-0.0067	0.0
27 AC	0.0054	0.0
28 AM	-0.0066	0.0
29 AP	0.0076	0.0
30 EC	0.0732	0.0
31 BM	0.0761	0.0
32 BP	0.0365	0.0
PEDSUM		100.000



PEP FOR FORCE CONSTANTS
MOLECULE-ISOTOPE NO. 1-

[illegible]

AII7

FREQUENCIES ASSIGNMENT (PED)	ASSIGNMENT (PED)	ASSIGNMENT (PED)	ASSIGNMENT (PED)
1 K(CH)	4.6740	0.0	0.0
2 K(CD)	4.8082	0.0	0.0
3 C(CH)	0.0240	0.0	0.0
4 C(CD)	0.0420	0.0	0.0
5 M(CH)	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0
7 P(CH)	-0.0060	0.0	0.0
8 P(CD)	-0.0080	0.0	0.0
9 H(CH)	0.1701	0.0	0.0
10 C(CH)	0.0015	0.0	0.0
11 M(CH)	-0.0070	0.0	0.0
12 P(CH)	0.0049	0.0	0.0
13 K(CC)	5.2499	0.0	0.0
14 C(CC)	0.4954	0.0	0.0
15 M(CC)	-0.2115	0.0	0.0
16 P(CC)	0.3528	0.0	0.0
17 H(CCC)	0.4189	0.0	0.0
18 C(CCC)	-0.0090	0.0	0.0
19 M(CCC)	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0
21 F(CH)	0.3845	0.0	0.0
22 F(CC)	0.2417	0.0	0.0
23 A	0.3850	0.0	0.0
24 B	0.4238	0.0	0.0
25 C	0.0377	0.0	0.0
26 D	-0.0067	0.0	0.0
27 AD	0.0054	0.0	0.0
28 AM	-0.0066	0.0	0.0
29 AP	0.0076	0.0	0.0
30 BD	0.0732	0.0	0.0
31 BM	0.0761	0.0	0.0
32 BP	0.0365	0.0	0.0
PEDSUM		0.0	0.0



POTENTIAL ENERGY DISTRIBUTION
MOLECULE-ISOTOPE NO. 1-3

SYM. BLOCK NO. 1

A III₁

FREQUENCIES	3064.404	3060.940	3060.931	2291.344	2282.816	2282.811	1579.500	1575.498	1425.042	1425.043
S 1 ST1	0.00	0.0	0.00	33.07	66.63	0.0	0.38	0.0	0.15	0.0
S 2 ST16	0.0	0.02	0.0	0.0	0.0	0.00	0.0	3.34	0.0	10.46
S 3 ST2	33.47	0.0	17.18	33.10	16.12	0.0	0.10	0.0	0.02	0.0
S 4 ST4	34.32	0.0	17.01	32.28	16.74	0.0	0.08	0.0	0.05	0.0
S 5 ST5	0.00	0.0	0.08	0.00	0.67	0.0	75.05	0.0	4.44	0.0
S 6 ST6	0.00	0.0	0.30	0.00	1.41	0.0	0.20	0.0	42.95	0.0
S 7 ST7	0.00	0.0	0.02	0.00	0.19	0.0	22.05	0.0	3.04	0.0
S 8 ST8	0.00	0.0	0.02	0.00	0.17	0.0	2.11	0.0	54.19	0.0
S 9 ST9	0.49	0.0	0.00	2.00	0.00	0.0	0.00	0.0	0.00	0.0
S 10 ST10	0.44	0.0	0.00	1.71	0.00	0.0	0.00	0.0	0.00	0.0
S 11 ST11	0.00	0.0	0.25	0.00	1.11	0.0	10.87	0.0	0.05	0.0
S 12 ST12	0.0	51.79	0.0	0.0	0.0	48.83	0.0	0.32	0.0	0.06
S 13 ST13	0.0	50.34	0.0	0.0	0.0	49.81	0.0	0.25	0.0	0.16
S 14 ST14	0.0	0.08	0.0	0.0	0.0	0.67	0.0	75.05	0.0	4.44
S 15 ST15	0.0	0.30	0.0	0.0	0.0	1.41	0.0	0.20	0.0	42.95
S 16 ST17	0.0	0.00	0.0	0.0	0.0	0.00	0.0	0.00	0.0	0.00
S 17 ST18	0.0	0.01	0.0	0.0	0.0	0.06	0.0	7.05	0.0	0.97
S 18 ST19	0.0	0.01	0.0	0.0	0.0	0.05	0.0	0.66	0.0	16.93
S 19 ST21	0.0	0.25	0.0	0.0	0.0	1.11	0.0	10.87	0.0	0.05
S 20 ST20	0.0	0.00	0.0	0.0	0.0	0.23	0.0	12.19	0.0	27.15
S 21 ST3	33.67	0.0	67.08	0.00	0.00	0.0	0.00	0.0	0.01	0.0

FREQUENCIES	1308.554	1271.754	1098.186	1098.186	1003.906	956.823	908.478	824.113	824.113	591.820
S 1 ST1	0.0	0.0	0.01	0.0	0.08	0.37	0.0	0.0	0.01	0.0
S 2 ST16	0.01	4.65	0.0	6.51	0.0	0.0	31.31	44.86	0.0	0.12
S 3 ST2	0.0	0.0	0.00	0.0	0.16	0.48	0.0	0.0	0.00	0.0
S 4 ST4	0.0	0.0	0.00	0.0	0.03	0.28	0.0	0.0	0.02	0.0
S 5 ST5	0.0	0.0	7.50	0.0	0.00	0.00	0.0	0.0	1.83	0.0
S 6 ST6	0.0	0.0	34.21	0.0	0.00	0.09	0.0	0.0	22.48	0.0
S 7 ST7	0.0	0.0	46.27	0.0	0.00	0.00	0.0	0.0	29.85	0.0
S 8 ST8	0.0	0.0	4.55	0.0	0.00	0.00	0.0	0.0	39.47	0.0
S 9 ST9	0.0	0.0	0.00	0.0	72.40	25.53	0.0	0.0	0.00	0.0
S 10 ST10	0.0	0.0	0.00	0.0	26.98	71.76	0.0	0.0	0.00	0.0
S 11 ST11	0.0	0.0	0.65	0.0	0.00	0.00	0.0	0.0	0.28	0.0
S 12 ST12	0.00	0.00	0.0	0.00	0.0	0.0	0.00	0.01	0.0	0.05
S 13 ST13	0.00	0.00	0.0	0.01	0.0	0.0	0.00	0.05	0.0	0.11
S 14 ST14	0.00	0.00	0.0	7.50	0.0	0.0	0.00	1.83	0.0	12.52
S 15 ST15	0.00	0.00	0.0	34.21	0.0	0.0	0.00	22.48	0.0	0.02
S 16 ST17	51.83	51.17	0.0	0.00	0.0	0.0	1.12	0.00	0.0	0.00
S 17 ST18	23.23	29.50	0.0	14.81	0.0	0.0	15.35	9.55	0.0	7.12
S 18 ST19	20.45	1.20	0.0	1.42	0.0	0.0	50.16	12.33	0.0	0.00
S 19 ST21	0.00	0.00	0.0	0.68	0.0	0.0	0.00	0.28	0.0	86.41
S 20 ST20	22.40	10.77	0.0	25.77	0.0	0.0	2.80	0.26	0.0	0.12
S 21 ST3	0.0	0.0	0.00	0.0	0.01	0.01	0.0	0.0	0.03	0.0

FREQUENCIES	591.818
S 1 ST1	0.11
S 2 ST16	0.0
S 3 ST2	0.02
S 4 ST4	0.04
S 5 ST5	12.52
S 6 ST6	0.02
S 7 ST7	0.37
S 8 ST8	0.00
S 9 ST9	0.00
S 10 ST10	0.00
S 11 ST11	86.41
S 12 ST12	0.0
S 13 ST13	0.0
S 14 ST14	0.0
S 15 ST15	0.0
S 16 ST17	0.0
S 17 ST18	0.0
S 18 ST19	0.0
S 19 ST21	0.0
S 20 ST20	0.0
S 21 ST3	0.00



POTENTIAL ENERGY DISTRIBUTION
MOLECULE-ISOTOPE NO. 1- 3

SYM. BLOCK NO. 2

	FREQUENCIES	924.159	924.153	916.854	707.496	707.494	700.303	529.607	369.518	369.515	0.0
S 1	ST29	0.0	5.31	8.48	0.0	50.92	11.73	15.49	1.84	0.0	0.0
S 2	ST22	66.71	0.0	0.0	24.93	0.0	0.0	0.0	0.0	11.97	0.0
S 3	ST23	16.88	0.0	0.0	55.73	0.0	0.0	0.0	0.0	1.15	0.0
S 4	ST24	25.92	0.0	0.0	2.42	0.0	0.0	0.0	0.0	75.27	0.0
S 5	ST RED1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S 6	ST RED2	7.41	0.0	0.0	24.45	0.0	0.0	0.0	0.0	0.51	0.0
S 7	ST RED3	0.0	7.41	0.00	0.0	24.45	0.00	0.00	0.51	0.0	0.0
S 8	ST26	0.0	22.10	4.49	0.0	8.26	10.09	52.29	3.96	0.0	0.0
S 9	ST25	0.0	5.28	59.64	0.0	17.43	12.98	0.46	0.36	0.0	0.0
S10	ST28	0.0	0.00	31.74	0.0	0.00	51.27	23.00	0.00	0.0	0.0
S11	ST30	0.0	25.92	0.00	0.0	2.42	0.00	0.00	75.27	0.0	0.0
S12	ST27	0.0	49.30	25.15	0.0	2.06	0.08	10.47	6.71	0.0	0.0

	FREQUENCIES	0.0	0.0
S 1	ST29	0.0	0.0
S 2	ST22	0.0	0.0
S 3	ST23	0.0	0.0
S 4	ST24	0.0	0.0
S 5	ST RED1	0.0	0.0
S 6	ST RED2	0.0	0.0
S 7	ST RED3	0.0	0.0
S 8	ST26	0.0	0.0
S 9	ST25	0.0	0.0
S10	ST28	0.0	0.0
S11	ST30	0.0	0.0
S12	ST27	0.0	0.0

A III₂

AIII3

PEC FOR FORCE CONSTANTS
MOLECULE-ISCIPCE NO. 1- 3

SYM. BLOCK NO. 1

FREQUENCIES ASSIGNMENT	3064.404 ST4	3060.940 ST12	3060.931 ST3	2291.344 ST2	2282.816 ST1	2282.811 ST13	1579.500 ST5	1579.458 ST14	1425.043 ST6	1425.043 ST15
ASSIGNMENT (PED)	ST3	ST13	ST2	ST1	ST4	ST12	ST7	ST20	ST6	ST20
1 K(CH)	90.838	91.043	91.043	0.006	0.005	0.005	0.002	0.002	0.010	0.010
2 K(CD)	0.002	0.002	0.002	89.899	90.454	90.454	0.515	0.515	0.197	0.197
3 C(CH)	0.008	0.004	0.004	-0.014	-0.007	-0.007	0.000	0.000	-0.000	-0.000
4 U(CD)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5 M(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6 M(CD)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7 P(CH)	-0.001	0.001	0.001	0.002	-0.002	-0.002	0.000	0.000	-0.000	-0.000
8 P(CD)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9 H(CCH)	0.1701	0.058	0.058	0.259	0.388	0.388	16.367	16.367	36.775	36.775
10 D(CCH)	0.0015	-0.000	-0.000	-0.000	-0.000	-0.000	-0.105	-0.105	0.277	0.277
11 M(CCH)	-0.0070	0.001	0.001	0.000	0.009	0.009	0.613	0.613	1.484	1.484
12 P(CCH)	0.0049	0.000	0.000	0.000	0.000	0.000	0.355	0.355	-0.937	-0.937
13 K(CCC)	5.2499	0.281	0.281	1.158	1.594	1.594	64.840	64.840	34.792	34.792
14 C(CCC)	0.4954	0.014	0.014	0.226	0.041	0.041	-6.092	-6.092	2.560	2.560
15 M(CCC)	-0.2115	0.011	0.011	-0.096	0.064	0.064	2.612	2.612	1.401	1.401
16 P(CCC)	0.3528	-0.010	-0.010	0.080	-0.029	-0.029	4.338	4.338	1.823	1.823
17 H(CCC)	0.4189	0.177	0.177	1.277	0.805	0.805	7.084	7.084	3.021	3.021
18 C(CCC)	-0.0050	0.005	0.005	0.082	0.021	0.021	0.228	0.228	-0.062	-0.062
19 M(CCC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 P(CCC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 F(CH)	0.3845	8.384	8.384	6.678	6.529	6.529	8.617	8.617	20.559	20.559
22 F(CC)	0.2417	0.031	0.031	0.405	0.128	0.128	0.627	0.627	1.748	1.748
23 A	0.3850	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 B	0.4238	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25 C	0.0377	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26 D	-0.0067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27 A3	0.0054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28 AM	-0.0066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 AP	0.0076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30 BC	0.0732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 BM	0.0761	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 BP	0.0365	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PEUSUM	100.000	100.000	100.000	100.000	100.001	100.001	100.001	100.002	100.001	100.001



FREQUENCIES ASSIGNMENT (PED)		1308.554 ST17	1271.794 ST17	1098.186 ST7	1098.186 ST15	1003.906 ST9	956.823 ST10	908.478 ST19	824.113 ST16	824.113 ST8	591.820 ST21
ASSIGNMENT (PED)		ST18	ST18	ST6	ST20	ST10	ST9	ST16	ST15	ST7	ST14
1 K(CH)	4.6740	0.000	0.000	0.001	0.001	0.039	0.018	0.000	0.045	0.045	0.004
2 K(CD)	4.8082	0.000	0.000	0.014	0.014	0.216	1.016	0.000	0.009	0.009	0.147
3 G(CH)	0.0240	-0.000	-0.000	-0.000	-0.000	-0.002	-0.003	0.000	-0.000	-0.000	-0.000
4 G(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	-0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 H(CCH)	0.1701	43.098	29.653	31.908	31.908	9.370	3.303	65.587	43.682	43.682	11.644
10 O(CCH)	0.0015	0.029	0.465	-0.219	-0.219	-0.000	0.000	-0.614	0.056	0.056	-0.002
11 M(CCH)	-0.0070	-3.538	-2.434	1.289	1.289	0.000	0.000	-5.384	1.781	1.781	0.009
12 P(CCH)	0.0049	0.049	0.787	0.742	0.742	0.000	-0.000	-1.041	-0.190	-0.190	0.007
13 K(CC)	5.2499	66.899	66.040	31.127	31.127	18.872	50.203	1.451	17.784	17.783	10.803
14 C(CC)	0.4954	-12.626	-12.464	1.717	1.717	3.562	9.475	-0.274	1.380	1.380	-1.017
15 M(CC)	-0.2115	-5.389	-5.320	1.254	1.254	-1.520	-4.044	-0.117	0.716	0.716	0.435
16 P(CC)	0.3528	-4.495	-4.438	-1.223	-1.223	1.268	3.374	-0.098	-0.983	-0.983	0.724
17 H(CCC)	0.4189	0.000	0.000	2.417	2.417	46.155	16.272	0.000	1.476	1.475	56.240
18 O(CCC)	-0.0090	-0.000	-0.000	-0.049	-0.049	2.975	1.049	-0.000	-0.036	-0.036	1.813
19 M(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 F(CH)	0.3845	16.282	28.016	29.590	29.590	7.804	9.351	40.495	33.370	33.370	5.179
22 F(CC)	0.2417	-0.308	-0.304	1.431	1.431	11.262	9.986	-0.007	0.910	0.910	14.013
23 A	0.3850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24 B	0.4238	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 C	0.0377	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26 D	-0.0067	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27 AO	0.0054	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28 AM	-0.0066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 BC	0.0732	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31 BM	0.0761	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32 BP	0.0365	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PEDSUM		100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

A III₄

	FREQUENCIES ASSIGNMENT (FED)	591.818 ST11
	ASSIGNMENT (FED)	ST5
1 K(CH)	4.674C	0.004
2 K(CD)	4.8082	0.147
3 C(CH)	0.0240	-0.000
4 C(CD)	0.0420	0.0
5 M(CH)	0.0	0.0
6 M(CD)	0.0060	0.0
7 P(CH)	-0.0060	-0.000
8 P(CD)	-0.0080	0.0
9 H(CCH)	0.1701	11.645
10 C(CCH)	0.0015	-0.002
11 M(CCH)	-0.0070	0.009
12 P(CCH)	0.0045	0.007
13 K(CCC)	5.2499	10.803
14 G(CCC)	0.4954	-1.017
15 M(CCC)	-0.2115	0.435
16 P(CCC)	0.3528	0.724
17 H(CCCC)	0.4189	56.241
18 O(CCCC)	-0.0090	1.813
19 M(CCCC)	0.0	0.0
20 P(CCCC)	0.0	0.0
21 F(CH)	0.3845	5.179
22 F(CCC)	0.2417	14.013
23 A	0.3850	0.0
24 B	0.4238	0.0
25 C	0.0377	0.0
26 D	-0.0067	0.0
27 A0	0.0054	0.0
28 AM	-0.0066	0.0
29 AP	0.0076	0.0
30 BC	0.0732	0.0
31 BM	0.0761	0.0
32 BP	0.0365	0.0
PEDSUM		100.001

AIII5



PED FOR FORCE CONSTANTS
MOLECULE-ISOTOPE NO. 1- 3

SYM. BLOCK NO. 2

A III 6

FREQUENCIES ASSIGNMENT		924.159 ST22	924.153 ST27	916.854 ST25	707.496 ST23	707.494 ST29	700.303 ST28	529.007 ST26	365.518 ST30	365.515 ST24	0.0
ASSIGNMENT (PED)		ST24	ST30	ST28	ST22	ST	ST25	ST28	ST22	ST22	
1 K(CH)	4.6740	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 K(CD)	4.8082	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 C(CH)	0.0240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 O(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 H(CCH)	0.1701	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 C(CCH)	0.0015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11 M(CCH)	-0.0070	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 P(CCH)	0.0049	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 K(CCC)	5.2499	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14 O(CCC)	0.4954	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 M(CCC)	-0.2115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16 P(CCC)	0.3528	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17 H(CCC)	0.4189	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18 O(CCC)	-0.0090	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19 M(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 F(CH)	0.3845	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22 F(CD)	0.2417	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23 A	0.3850	81.906	81.906	100.900	79.472	79.472	35.404	77.892	12.840	12.840	0.0
24 B	0.4238	43.490	43.490	34.217	30.253	30.253	55.267	24.796	103.126	103.126	0.0
25 C	0.0377	-17.697	-17.697	-21.203	-10.090	-10.090	12.572	-1.592	11.051	11.051	0.0
26 D	-0.0067	0.776	0.776	-3.776	2.563	2.563	2.239	-0.284	0.053	0.053	0.0
27 AO	0.0054	-0.682	-0.682	-2.462	0.432	0.432	-0.158	2.147	-0.148	-0.148	0.0
28 AM	-0.0066	1.409	1.409	-3.470	1.367	1.367	-0.112	-2.679	0.221	0.221	0.0
29 AP	0.0076	0.960	0.960	-1.733	0.608	0.608	0.112	1.512	0.209	0.209	0.0
30 BC	0.0732	-4.690	-4.690	-11.818	4.088	4.088	-19.088	-8.564	-17.616	-17.616	0.0
31 BM	0.0761	-7.813	-7.813	12.295	-5.435	-5.435	19.858	8.909	-18.527	-18.527	0.0
32 BP	0.0365	2.341	2.341	-2.949	-2.040	-2.040	-4.764	-2.137	6.793	6.793	0.0
PEDSUM		100.000	100.000	100.000	100.000	100.000	100.000	100.001	100.001	100.001	0.0

A III 7

FREQUENCIES ASSIGNMENT (PED)	ASSIGNMENT (PED)	ASSIGNMENT (PED)	ASSIGNMENT (PED)
1 K(CH)	4.6740	0.0	0.0
2 K(CD)	4.8082	0.0	0.0
3 O(CH)	0.0240	0.0	0.0
4 C(CD)	0.0420	0.0	0.0
5 M(CH)	0.0	0.0	0.0
6 M(CD)	0.0060	0.0	0.0
7 P(CH)	-0.0060	0.0	0.0
8 P(CD)	-0.0080	0.0	0.0
9 H(CCH)	0.1701	0.0	0.0
10 C(CCH)	0.0015	0.0	0.0
11 M(CCH)	-0.0070	0.0	0.0
12 P(CCH)	0.0049	0.0	0.0
13 K(CD)	5.2499	0.0	0.0
14 C(CD)	0.4954	0.0	0.0
15 M(CD)	-0.2115	0.0	0.0
16 P(CD)	0.3528	0.0	0.0
17 H(CCC)	0.4185	0.0	0.0
18 C(CCC)	-0.0090	0.0	0.0
19 M(CCC)	0.0	0.0	0.0
20 P(CCC)	0.0	0.0	0.0
21 F(CH)	0.3845	0.0	0.0
22 F(CD)	0.2417	0.0	0.0
23 A	0.3850	0.0	0.0
24 B	0.4238	0.0	0.0
25 C	0.0377	0.0	0.0
26 D	-0.0067	0.0	0.0
27 A0	0.0054	0.0	0.0
28 AM	-0.0066	0.0	0.0
29 AP	0.0076	0.0	0.0
30 BC	0.0732	0.0	0.0
31 BM	0.0761	0.0	0.0
32 BP	0.0365	0.0	0.0
PEDSUM		0.0	0.0



A IV¹

EIGENVALUES AND EIGENVECTORS OF J_{WJ}-MATRIX

	EIGENVALUE	0.14289E+09	0.10208E+09	0.93710E+08	0.63296E+08	0.58898E+08	0.44045E+08	0.30727E+08
2 K(CD)	4.8082	0.000106	0.000133	0.0	0.0	0.002748	0.001049	-0.002851
9 F(CCH)	0.1701	0.238083	0.055635	0.0	0.0	0.907175	0.156243	0.081322
10 D(CCH)	0.0015	0.402516	0.888887	0.0	0.0	-0.120999	-0.176745	-0.019135
11 M(CCH)	-0.0070	0.868889	-0.443550	0.0	0.0	-0.172069	-0.130351	-0.006445
12 P(CCH)	0.0049	0.150249	0.095573	0.0	0.0	-0.221111	0.955677	0.030041
13 K(CD)	5.2499	0.000671	0.000554	0.0	0.0	0.026745	0.005804	0.003440
14 D(CD)	0.4954	-0.008801	0.016252	0.0	0.0	-0.006629	-0.017665	-0.009305
15 M(CD)	-0.2115	0.014330	-0.014485	0.0	0.0	-0.011094	-0.010664	-0.009010
16 P(CD)	0.3528	-0.006011	-0.002300	0.0	0.0	-0.006753	0.023652	-0.002097
17 H(CCC)	0.4189	-0.002886	0.005061	0.0	0.0	0.056654	0.029566	-0.0194569
21 F(CD)	0.3845	0.056808	0.007839	0.0	0.0	0.268407	0.065672	0.015560
23 A	0.3850	0.0	0.0	-0.264383	-0.255129	0.0	0.0	0.0
24 B	0.4238	0.0	0.0	-0.093139	-0.113324	0.0	0.0	0.0
25 C	0.0377	0.0	0.0	0.645529	0.535843	0.0	0.0	0.0
26 D	-0.0067	0.0	0.0	-0.442380	0.507234	0.0	0.0	0.0
27 A0	0.0054	0.0	0.0	0.455686	-0.055502	0.0	0.0	0.0
28 AM	-0.0066	0.0	0.0	-0.254843	0.546767	0.0	0.0	0.0
29 AP	0.0076	0.0	0.0	0.054501	-0.134422	0.0	0.0	0.0
30 B0	0.0732	0.0	0.0	0.162556	-0.049237	0.0	0.0	0.0
31 BM	0.0761	0.0	0.0	0.082770	0.226041	0.0	0.0	0.0
32 BP	0.0365	0.0	0.0	-0.082770	-0.063478	0.0	0.0	0.0
22 F(CD)	0.2417	-0.002073	0.007625	0.0	0.0	0.028340	0.001442	-0.069672
5 M(CD)	0.0	0.000169	-0.000132	0.0	0.0	0.000098	0.000002	-0.011865
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CD)	-0.0060	-0.000043	-0.000110	0.0	0.0	-0.000113	0.000375	0.003798
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1 K(CD)	4.6740	0.000357	0.000092	0.0	0.0	0.004470	0.001525	-0.000922
3 O(CD)	0.0240	-0.000057	0.000112	0.0	0.0	-0.001052	-0.000962	0.006959
18 O(CCC)	-0.0090	-0.003292	0.013680	0.0	0.0	-0.081047	-0.081553	0.617824
19 M(CCC)	0.0	0.012542	-0.007740	0.0	0.0	-0.010412	0.003351	-0.669880
20 P(CCC)	0.0	-0.004921	-0.010532	0.0	0.0	-0.014346	0.033612	0.343911
4 O(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0	0.0



EIGENVALUE	0.22391E+08	0.13882E+08	0.12159E+08	0.79423E+07	0.73923E+07	0.32108E+07	0.24201E+07
2 K(CD)	4.8082	0.0	0.0	-0.007080	0.0	0.0	-0.002313
9 H(CCH)	0.1731	0.0	0.0	0.062316	0.0	0.0	0.002282
10 O(CCH)	0.0015	0.0	0.0	-0.029496	0.0	0.0	0.00166
11 M(CCH)	-0.0070	0.0	0.0	-0.025630	0.0	0.0	-0.000043
12 P(CCH)	0.0049	0.0	0.0	0.059188	0.0	0.0	-0.000465
13 K(CC)	5.2499	0.0	0.0	-0.019280	0.0	0.0	0.001045
14 C(CC)	0.4954	0.0	0.0	0.022156	0.0	0.0	0.001197
15 M(CC)	-0.2115	0.0	0.0	0.021000	0.0	0.0	0.004834
16 P(CC)	0.3528	0.0	0.0	-0.028361	0.0	0.0	0.003989
17 H(CCC)	0.4189	0.0	0.0	-0.376137	0.0	0.0	0.000434
21 F(CH)	0.3845	0.0	0.0	0.047751	0.0	0.0	-0.008149
23 A	0.3850	0.0	-0.238588	0.0	-0.336185	0.128144	0.0
24 B	0.128033	-0.211480	-0.312595	0.0	-0.075108	-0.476345	0.0
25 C	0.0377	-0.297550	-0.149391	0.0	-0.263391	0.039734	0.0
26 D	-0.0067	0.239464	0.039827	0.0	0.184199	-0.265965	0.0
27 A0	0.0054	0.667591	-0.184190	0.0	0.301625	-0.391047	0.0
28 AM	-0.0066	0.33870	-0.133052	0.0	-0.356880	0.151714	0.0
29 AP	0.0076	0.254201	-0.630031	0.0	0.033092	0.502823	0.0
30 BC	0.0732	0.067815	0.579335	0.0	-0.114505	0.329148	0.0
31 BM	0.0761	0.358864	-0.162406	0.0	0.608381	0.313671	0.0
32 BP	0.0365	-0.204966	-0.104332	0.0	-0.418765	-0.176468	0.0
22 F(CC)	-0.225607	0.057584	0.0	-0.152068	0.0	0.0	0.008018
5 M(CH)	0.2417	0.0	0.0	0.014992	0.0	0.0	0.995718
6 M(CD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	0.0060	0.0	0.0	-0.008912	0.0	0.0	-0.000438
8 P(CD)	-0.0060	0.0	0.0	0.0	0.0	0.0	0.0
1 K(CH)	4.6740	0.0	0.0	0.001800	0.0	0.0	-0.005218
3 O(CH)	0.0240	0.0	0.0	0.011241	0.0	0.0	-0.000020
18 C(CCC)	-0.0090	0.0	0.0	0.612834	0.0	0.0	-0.001324
19 M(CCC)	0.0	0.0	0.0	0.447312	0.0	0.0	-0.012921
20 P(CCC)	0.0	0.0	0.0	-0.495937	0.0	0.0	0.013594
4 C(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0

A IV²

EIGENVALUE	0.21007E+07	0.16144E+07	0.80855E+06	0.56487E+06	0.50105E+05	0.26500E+00	0.23346E+00
2 K(CD)	4.8082	0.171242	0.006788	0.001094	-0.078953	-0.279275	0.0
9 H(CCH)	0.1701	-0.236546	0.001740	0.001026	-0.056497	-0.026209	0.0
10 O(CCH)	0.0015	0.012879	0.000264	-0.011084	0.002976	-0.009727	0.0
11 M(CCH)	-0.0070	0.009924	0.000643	-0.022114	0.000924	-0.001382	0.0
12 P(CCH)	0.0049	-0.012162	-0.000143	-0.000295	-0.000593	0.022087	0.0
13 K(CC)	5.2499	0.004837	0.004311	-0.032826	-0.056023	-0.027416	0.0
14 C(CC)	0.4954	0.048177	0.000115	0.648330	0.031816	0.455848	0.0
15 P(CC)	-0.2115	0.014920	0.004218	-0.013046	-0.014472	0.537375	0.0
16 P(CC)	0.3528	0.004382	0.003109	-0.299154	-0.064572	-0.136074	0.0
17 H(CCC)	0.4189	0.012172	0.007486	0.008043	-0.011638	0.014261	0.0
21 F(CH)	0.3845	0.086966	0.025458	0.000193	-0.186130	0.099753	0.0
23 A	0.3850	0.0	0.0	0.0	0.0	0.0	0.702079
24 B	0.4238	0.0	0.0	0.0	0.0	0.0	0.055516
25 C	0.0377	0.0	0.0	0.0	0.0	0.0	0.032231
26 C	-0.0067	0.0	0.0	0.0	0.0	0.0	0.030579
27 A	0.0054	0.0	0.0	0.0	0.0	0.0	0.046318
28 A	-0.0066	0.0	0.0	0.0	0.0	0.0	-0.0361727
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0	-0.062186
30 B	0.0732	0.0	0.0	0.0	0.0	0.0	0.0201255
31 BM	0.0761	0.0	0.0	0.0	0.0	0.0	0.034864
32 BP	0.0365	0.0	0.0	0.0	0.0	0.0	-0.0291635
22 F(CC)	0.2417	0.038785	0.018103	0.061351	-0.059557	0.559411	0.0
5 M(CH)	0.0	0.009397	0.000175	0.000779	0.000271	-0.007355	0.0
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	0.000716	0.002454	0.007264	0.002652	-0.003855	0.0
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0
1 K(CH)	4.6740	0.037239	0.028328	-0.118566	0.554552	-0.171355	0.0
3 O(CH)	0.0240	-0.039779	0.98912	-0.002241	-0.003654	-0.012851	0.0
18 O(CCC)	-0.0050	0.001168	-0.008672	0.013227	0.013413	0.073424	0.0
19 M(CCC)	0.0	-0.021007	0.002430	-0.008000	0.012699	-0.035643	0.0
20 P(CCC)	0.0	0.003917	-0.000126	-0.017271	0.018167	-0.059253	0.0
4 C(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0



AIV3

AIV₄

EIGENVALUE	0.11415E+06	0.72089E+C5	C.36568E+05	0.68330E+02	0.14952E+02	0.63943E+C1	C.28793E+01
2 K(CD)	4.9082	-0.073176	0.392731	-0.322483	0.0	0.0	-0.000177
5 H(CCH)	0.1701	-0.037778	0.124361	0.074425	0.0	0.0	-0.000018
10 Q(CCH)	0.0015	0.004861	-0.000094	-0.018013	0.0	0.0	0.000062
11 P(CCH)	-0.0070	0.011388	0.009525	0.000013	0.0	0.0	-0.000001
12 P(CCH)	0.0049	-0.008620	0.006436	-0.000039	0.0	0.0	-0.000003
13 K(CC)	5.2499	0.678973	-0.107926	0.225368	0.0	0.0	-0.493781
14 Q(CC)	0.4954	-0.131666	0.145260	0.122183	0.0	0.0	-0.243811
15 P(CC)	-0.2115	-0.135541	0.337195	0.309366	0.0	0.0	0.252397
16 P(CC)	0.3528	0.557634	-0.350823	0.134886	0.0	0.0	0.499398
17 H(CCC)	0.4189	0.002659	0.338040	0.150559	0.0	0.0	0.372948
21 F(CH)	0.3845	0.053776	-0.348264	0.004976	0.0	0.0	0.000077
23 A	0.3850	0.0	0.0	0.0	0.0	-0.251782	0.0
24 B	0.4238	0.0	0.0	0.0	0.0	0.665403	0.0
25 C	0.0377	0.0	0.0	0.0	-0.000005	0.000005	0.0
26 D	-0.0067	0.0	0.0	0.0	-0.000076	0.000005	0.0
27 A0	0.0054	0.0	0.0	0.0	0.025395	-0.125855	0.0
28 A1	-0.0066	0.0	0.0	0.0	-0.025390	0.125850	0.0
29 A2	0.0076	0.0	0.0	0.0	-0.050791	0.251790	0.0
30 B0	0.0732	0.0	0.0	0.0	0.432983	0.382135	0.0
31 B1	0.0761	0.0	0.0	0.0	0.547266	-0.184400	0.0
32 B2	0.0365	0.0	0.0	0.0	0.604414	-0.467611	0.0
22 F(CC)	0.2417	0.341716	0.088279	-0.682855	0.0	0.0	-0.007639
5 M(CH)	0.0	-0.003823	0.002346	0.002349	0.0	0.0	0.000026
6 M(CD)	0.0060	0.0	0.0	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	0.001411	0.008477	-0.004689	0.0	0.0	-0.000053
8 P(CD)	-0.0080	0.0	0.0	0.0	0.0	0.0	0.0
1 K(CH)	4.6740	-0.070415	0.438689	-0.007503	0.0	0.0	-0.000107
3 C(CH)	0.0240	-0.006776	-0.007272	0.002443	0.0	0.0	0.000028
18 C(CCC)	-0.0050	0.080797	-0.041345	-0.096516	0.0	0.0	0.080496
19 M(CCC)	0.0	-0.002333	0.189534	-0.143169	0.0	0.0	-0.251893
20 P(CCC)	0.0	-0.082398	-0.400432	-0.140902	0.0	0.0	-0.417799
4 C(CD)	0.0420	0.0	0.0	0.0	0.0	0.0	0.0

A IV⁵

EIGENVALUE	9.0	9.0	9.0	9.0	9.0	9.0
2 K(CD)	4.8082	3.0	0.0	0.0	0.0	-0.5774CE+01
9 H(CCH)	0.1701	0.0	0.0	0.0	0.0	-0.600983
10 Q(CCH)	0.2015	0.0	0.0	0.0	0.0	-0.000096
11 M(CCH)	-0.0070	0.0	0.0	0.0	0.0	0.000004
12 P(CCH)	0.0049	0.0	0.0	0.0	0.0	0.000001
13 K(CC)	5.2499	0.0	0.0	0.0	0.0	-0.000002
14 C(CC)	0.4954	0.0	0.0	0.0	0.0	0.018478
15 M(CC)	-0.2115	0.0	0.0	0.0	0.0	0.027949
16 P(CC)	0.3528	0.0	0.0	0.0	0.0	0.024228
17 H(CCC)	0.4189	0.0	0.0	0.0	0.0	0.015632
21 F(CH)	0.3845	0.0	0.0	0.0	0.0	0.671251
23 A	0.3850	0.0	0.0	0.0	0.0	0.000352
24 B	0.4238	0.0	0.0	0.0	0.0	0.0
25 C	0.0377	0.0	0.0	0.0	0.0	0.0
26 D	-0.0067	0.0	0.0	0.0	0.0	0.0
27 A0	0.0054	0.0	0.0	0.0	0.0	0.0
28 A1	-0.0066	0.0	0.0	0.0	0.0	0.0
29 AP	0.0076	0.0	0.0	0.0	0.0	0.0
30 BC	0.0732	0.0	0.0	0.0	0.0	0.0
31' BM	0.0761	0.0	0.0	0.0	0.0	0.0
32 BP	0.3365	0.0	0.0	0.0	0.0	0.0
22 F(CC)	0.2417	0.0	0.0	0.0	0.0	-0.046353
5 M(CH)	0.0	0.0	0.0	0.0	0.0	0.000159
6 M(CD)	0.0060	1.000000	0.0	0.0	0.0	0.0
7 P(CH)	-0.0060	0.0	0.0	0.0	0.0	-0.000319
8 P(CD)	-0.0080	0.0	0.0	1.000000	0.0	0.0
1 K(CH)	4.6740	0.0	0.0	0.0	0.0	0.0
3 C(CH)	0.0240	0.0	0.0	0.0	0.0	-0.000525
18 U(CCC)	-0.0090	0.0	0.0	0.0	0.0	0.000166
19 M(CCC)	0.0	0.0	0.0	0.0	0.0	0.431978
20 P(CCC)	0.0	0.0	0.0	0.0	0.0	0.424501
4 O(CD)	0.0420	0.0	0.0	0.0	0.0	0.422504
						C.0
						1.000000



AV₁

EIGENVALUES AND EIGENVECTORS OF JMJ-MATRIX(VARIABLE CONSTANTS)

EIGENVALUE	0.14287E+09	0.10205E+09	0.93711E+08	0.63296E+08	0.58594E+08	0.43794E+08	0.22391E+08
2 K(CD)	0.000102	0.000146	0.0	0.0	0.002593	0.000906	0.0
9 H(CCH)	0.238131	0.055984	0.0	0.0	0.909430	0.173123	0.0
10 G(CCH)	0.402705	0.888768	0.0	0.0	-0.120197	-0.181327	0.0
11 M(CCH)	0.868885	-0.444008	0.0	0.0	-0.170639	-0.133147	0.0
12 P(CCH)	0.150352	0.096124	0.0	0.0	-0.232476	0.555518	0.0
13 K(CCC)	0.000282	0.000574	0.0	0.0	0.026700	0.006083	0.0
14 Q(CCC)	-0.008827	0.016237	0.0	0.0	-0.006634	-0.017795	0.0
15 M(CCC)	0.014301	-0.014501	0.0	0.0	-0.011159	-0.011037	0.0
16 P(CCC)	-0.006007	-0.002261	0.0	0.0	-0.007315	0.023205	0.0
17 H(CCCC)	-0.003271	0.005783	0.0	0.0	0.047336	0.019537	0.0
21 F(CCH)	0.056790	0.007953	0.0	0.0	0.268598	0.070791	0.0
23 A	0.0	0.0	-0.264384	-0.255130	0.0	0.0	0.325952
24 B	0.0	0.0	-0.093140	-0.113325	0.0	0.0	0.128033
25 C	0.0	0.0	0.645530	0.535844	0.0	0.0	-0.063086
26 D	0.0	0.0	-0.442381	0.507234	0.0	0.0	-0.492302
27 AC	0.0	0.0	0.455687	-0.055502	0.0	0.0	0.217093
28 AM	0.0	0.0	-0.254845	0.546768	0.0	0.0	0.457394
29 AF	0.0	0.0	0.054501	-0.134422	0.0	0.0	-0.440035
30 BC	0.0	0.0	0.162556	-0.149237	0.0	0.0	-0.067815
31 BM	0.0	0.0	-0.382771	0.226041	0.0	0.0	0.265390
32 BP	0.0	0.0	0.013355	-0.063479	0.0	0.0	-0.325608

EIGENVALUE	0.13882E+08	0.12159E+08	0.73923E+07	0.32108E+07	0.23903E+07	0.15817E+07	0.56126E+06
2 K(CD)	0.0	0.0	0.0	0.0	0.024133	0.286404	0.039371
9 H(CCH)	0.0	0.0	0.0	0.0	-0.049114	-0.266586	-0.016989
10 G(CCH)	0.0	0.0	0.0	0.0	0.016041	0.014058	0.011000
11 M(CCH)	0.0	0.0	0.0	0.0	0.016798	0.005860	0.021290
12 P(CCH)	0.0	0.0	0.0	0.0	-0.009043	-0.012951	0.001572
13 K(CCC)	0.0	0.0	0.0	0.0	0.025646	-0.010877	0.010702
14 Q(CCC)	0.0	0.0	0.0	0.0	-0.008017	0.078831	-0.633068
15 M(CCC)	0.0	0.0	0.0	0.0	-0.013683	0.024659	0.636620
16 P(CCC)	0.0	0.0	0.0	0.0	0.041789	-0.011161	-0.37461
17 H(CCCC)	0.0	0.0	0.0	0.0	0.996953	0.013078	0.007185
21 F(CCH)	0.0	0.0	0.0	0.0	-0.006268	0.015360	0.020197
23 A	0.116256	-0.238588	-0.336184	0.128142	0.0	0.0	0.0
24 B	-0.211479	-0.312595	-0.075107	-0.476344	0.0	0.0	0.0
25 C	-0.297550	-0.149391	-0.263391	0.039733	0.0	0.0	0.0
26 D	0.239464	0.039828	0.184200	-0.285964	0.0	0.0	0.0
27 AC	0.667593	-0.184188	0.301625	-0.391045	0.0	0.0	0.0
28 AM	0.333872	-0.133052	-0.356679	0.151712	0.0	0.0	0.0
29 AP	0.254203	-0.630031	0.033090	0.502823	0.0	0.0	0.0
30 BC	0.358863	0.575335	-0.114506	0.339148	0.0	0.0	0.0
31 BM	-0.204966	-0.162407	0.608378	0.313672	0.0	0.0	0.0
32 BP	0.057584	-0.104331	-0.416764	-0.176470	0.0	0.0	0.0

EIGENVALUE	0.31237E+06	0.23346E+06	0.18535E+06	0.81522E+05	0.18662E+05	0.14162E+02	0.78918E+01
2 K(CD)	-0.941054	0.0	0.172445	0.019827	0.011062	0.0	0.0
9 H(CCH)	-0.071616	0.0	0.052417	0.003109	-0.013584	0.0	0.0
10 G(CCH)	0.022274	0.0	-0.012338	0.003111	-0.008485	0.0	0.0
11 M(CCH)	0.000172	0.0	-0.010687	0.002216	0.009918	0.0	0.0
12 P(CCH)	0.000423	0.0	0.022726	-0.006755	0.016804	0.0	0.0
13 K(CCC)	-0.027655	0.0	-0.319447	0.598697	0.663843	0.0	0.0
14 Q(CCC)	0.120427	0.0	0.615533	0.316887	0.313757	0.0	0.0
15 M(CCC)	0.147942	0.0	0.603865	0.337774	-0.304348	0.0	0.0
16 P(CCC)	-0.068500	0.0	-0.327000	0.651566	-0.605642	0.0	0.0
17 H(CCCC)	0.027445	0.0	0.033312	-0.036145	0.005595	0.0	0.0
21 F(CCH)	0.258231	0.0	-0.114508	-0.027305	-0.025430	0.0	0.0
23 A	0.0	-0.702070	0.0	0.0	0.0	-0.070395	0.247036
24 B	0.0	-0.055533	0.0	0.0	0.0	0.635227	-0.418821
25 C	0.0	-0.332230	0.0	0.0	0.0	-0.000006	0.000001
26 D	0.0	-0.360578	0.0	0.0	0.0	-0.000005	0.000001
27 AC	0.0	-0.046315	0.0	0.0	0.0	-0.035191	0.123516
28 AM	0.0	0.361723	0.0	0.0	0.0	0.035196	-0.123518
29 AP	0.0	0.062180	0.0	0.0	0.0	0.070382	-0.247032
30 BC	0.0	-0.201263	0.0	0.0	0.0	0.560029	-0.140909
31 BM	0.0	-0.034857	0.0	0.0	0.0	0.401680	0.414917
32 BP	0.0	0.291620	0.0	0.0	0.0	0.322508	0.692828



	22 F(CCH)	5 M(CH)	6 M(CD)	7 P(CH)	8 P(CD)	1 K(CH)	3 D(CH)
4-8082	0.2417	0.0	0.0060	-0.00360	0.0	4.6740	0.0240
C-1701	0.020146	0.0	0.0	-0.023235	0.0	0.858671	0.0
C-0015	0.012850	0.0	0.0	-0.022766	0.0	0.250355	0.0
-0.0070	-0.012573	0.0	0.0	-0.011191	0.0	-0.018572	0.0
-0.0049	-0.006805	0.0	0.0	0.012429	0.0	-0.011786	0.0
5.2499	0.022270	0.0	0.0	0.022621	0.0	0.022411	0.0
C-4954	-1.670275	0.0	0.0	0.191270	0.0	0.025615	0.0
-0.2115	-0.844703	0.0	0.0	0.052558	0.0	0.519455	0.0
0.3528	-0.659116	0.0	0.0	-0.0240870	0.0	0.468357	0.0
0.4189	-1.486621	0.0	0.0	-0.447678	0.0	0.081061	0.0
0.3845	-0.290018	0.0	0.0	0.398628	0.0	-0.014188	0.0
C-3850	0.002077	0.0	0.0	-0.011802	0.0	-0.834265	0.0
0.4238	0.000271	0.0	0.0	0.000769	0.0	-0.000514	0.0
0.0377	-0.008657	0.0	0.0	-0.006971	0.0	0.004635	0.0
-0.0067	0.000000	0.0	0.0	0.000000	0.0	-0.000000	0.0
0.0054	0.000000	0.0	0.0	0.000000	0.0	-0.000000	0.0
-0.0066	0.000136	0.0	0.0	0.000384	0.0	-0.000257	0.0
0.0076	-0.000136	0.0	0.0	-0.000384	0.0	0.000257	0.0
0.0732	-0.000271	0.0	0.0	-0.000769	0.0	0.000514	0.0
0.0761	-0.008352	0.0	0.0	-0.006106	0.0	0.004061	0.0
C-3365	-0.007742	0.0	0.0	-0.004377	0.0	0.002504	0.0
0.32 BP	-0.007437	0.0	0.0	-0.003512	0.0	0.002326	0.0

	18 O(CCC)	19 H(CCC)	20 P(CCC)	4 O(CD)
2 K(CD)	-0.0090	0.0	0.0	0.0420
4.8082	0.11086	-0.0470513	0.360097	0.0
0.1701	0.177208	-0.0667021	0.490482	0.0
0.0015	-0.171565	0.448088	-0.276187	0.0
-0.0070	-0.090001	0.343982	-0.254349	0.0
0.0049	0.34322	-0.0898338	0.553338	0.0
12 P(CCH)	-15.066549	46.283051	-31.234726	0.0
13 K(CC)	-2.208709	6.889826	-4.689940	0.0
0.4954	-3.249297	8.312370	-5.048381	0.0
5.2499	-17.246032	49.108597	-31.832153	0.0
15 M(CC)	3.451913	-4.203121	2.250375	0.0
0.3528	-0.000441	0.069348	0.070156	0.0
0.4189	0.015887	-0.055688	0.035177	0.0
0.3845	0.4238	-0.121172	0.295032	0.0
23 A	0.0377	0.000000	0.000000	0.0
24 B	-0.0667	-0.000000	0.000000	0.0
25 C	0.0054	-0.027543	0.017588	0.0
26 D	-0.0066	0.027544	-0.017588	0.0
27 AD	0.0066	-0.019887	0.055086	0.0
28 AM	0.0376	-0.089798	0.233058	0.0
29 AP	0.0732	-0.045052	0.109111	0.0
30 BC	0.0761	-0.022680	0.047140	0.0
31 BM	0.0365		-0.024355	0.0
32 BP				

CORRELATION MATRIX

FORCE NO.	2	9	10	11	12	13	14	15	16	17	21	23	24	25	26
2	1.00	0.37	-0.09	-0.02	0.07	0.04	0.08	0.01	0.04	-0.04	-0.46	0.0	0.0	0.0	0.0
9	0.37	1.00	-0.05	-0.34	-0.05	-0.32	-0.07	0.36	0.24	-0.09	-0.76	0.0	0.0	0.0	0.0
10	-0.09	-0.05	1.00	-0.30	-0.47	-0.38	-0.49	0.34	0.51	-0.04	0.25	0.0	0.0	0.0	0.0
11	-0.02	-0.34	-0.30	1.00	0.22	0.57	0.44	-0.57	0.44	0.08	-0.33	0.0	0.0	0.0	0.0
12	0.07	-0.05	-0.47	0.22	1.00	0.47	0.53	0.37	0.63	0.07	-0.22	0.0	0.0	0.0	0.0
13	0.04	-0.32	-0.38	0.57	0.47	1.00	0.74	-0.56	-0.60	-0.03	0.19	0.0	0.0	0.0	0.0
14	0.08	-0.07	-0.49	0.44	0.53	0.74	1.00	0.27	0.54	0.03	-0.28	0.0	0.0	0.0	0.0
15	0.01	0.36	0.34	-0.57	-0.37	-0.56	-0.27	1.00	0.73	-0.06	0.03	0.0	0.0	0.0	0.0
16	-0.04	0.24	0.51	-0.44	-0.63	-0.60	-0.54	0.73	1.00	-0.15	0.16	0.0	0.0	0.0	0.0
17	-0.04	-0.05	-0.04	0.08	0.07	0.03	0.03	0.06	-0.15	1.00	-0.01	0.0	0.0	0.0	0.0
21	-0.46	-0.76	0.25	-0.03	-0.22	-0.19	-0.28	0.03	0.16	-0.01	1.00	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.80	0.02	0.02
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.80	1.00	-0.00	-0.00
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	-0.00	1.00	0.91
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	-0.00	0.91	1.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.80	0.00	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.80	-0.02	-0.02
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.80	-0.00	-0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.80	-0.00	-0.00
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.51	0.92	0.00	0.00
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.67	-0.09	-0.00	-0.00

FORCE NO.

FORCE NO.	27	28	29	30	31	32
2	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0
23	1.00	-1.00	-1.00	-0.51	0.67	0.86
24	-0.80	0.80	0.80	0.92	-0.09	-0.38
25	0.00	-0.02	-0.00	0.00	-0.00	-0.00
26	0.00	-0.02	-0.00	0.00	-0.00	-0.00
27	1.00	-1.00	-1.00	-0.51	0.67	0.86
28	-1.00	1.00	1.00	0.51	-0.67	-0.86
29	-1.00	1.00	1.00	0.51	-0.67	-0.86
30	-0.51	0.51	0.51	1.00	0.30	0.61
31	0.67	-0.67	-0.67	0.30	1.00	0.96
32	0.86	-0.86	-0.86	0.01	0.96	1.00

AV3



$$A \nabla_4$$

INTRINSIC FORCE CONSTANTS

NO.	F.C.	DISPERSION
1	0.05210	0.00060
2	0.03549	0.00071
3	-0.10330	0.00074
4	-0.12310	0.00090
5	0.45990	0.00093
6	0.11518	0.00108
7	-0.08718	0.00129
8	0.17881	0.00151
9	-0.04160	0.00192
10	-0.20892	0.00205
11	-0.30043	0.00253
12	-0.14553	0.00263
13	-0.10617	0.00399
14	-0.02966	0.00459
15	3.60396	0.00493
16	0.23235	0.00562
17	-0.01128	0.00794
18	-1.13619	0.00950
19	-1.50335	0.01009
20	-2.02758	0.01387
21	0.31281	0.01478
22	3.15567	0.02114
23	3.28400	0.02660
24	4.66170	0.03715
25	1.94028	0.86403
26	0.27419	1.84710
27	0.18233	2.82446
28	-2.43798	4.20912
29	0.00600	
30	-0.00800	
31	0.04200	
32	0.37025	

DISPERSION

NO.	F.C.	DISPERSION
2 K(CD)	4.80815	0.01146
9 H(CCH)	0.17006	0.00211
10 O(CCH)	0.00145	0.00080
11 M(CCH)	-0.00698	0.00080
12 P(CCH)	0.00492	0.00132
13 K(CC)	5.24995	0.03510
14 C(CC)	0.49542	0.01999
15 M(CC)	-0.21147	0.01978
16 P(CC)	0.35278	0.03315
17 H(CCC)	0.41886	0.00435
21 F(CH)	0.38450	0.00607
23 A	0.38496	0.58879
24 B	0.42381	1.47994
25 C	0.03770	0.00463
26 D	-0.00671	0.00511
27 AO	0.00541	0.29436
28 AM	-0.00662	0.29440
29 AP	0.00761	0.58870
30 BO	0.07319	1.02836
31 BM	0.07614	1.19327
32 BP	0.03653	1.70968

AVI 1

FREQUENCIES	5071.73	3.71.167	3.67.627	3.67.589	3.62.226	2.62.215	3.55.715	2.55.711	3.55.496	3.55.493
S1 CX ST	1.71	1.71	1.71	1.71	1.57	2.17	3.55.715	2.55.711	3.55.496	3.55.493
S2 CCX1 DEF	1.71	1.71	1.71	1.71	1.57	2.17	3.55.715	2.55.711	3.55.496	3.55.493
S3 CH ST18	3.51	3.51	3.51	3.51	5.19	1.55	3.51	3.51	3.51	3.51
S4 CH ST 7	57.81	2.83	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S5 CC ST 3	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S6 ST+DEF19	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S7 CCH DEF9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S8 CCHDEF22	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S9 CCHDEF12	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S10 CC ST 2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S11 CCC DEF6	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S12 CH ST 7	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S13 CH ST 8	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S14 CC ST 8	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S15 ST+DEF19	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S16 CC ST 14	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S17 CCHDEF 9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S18 CCHDEF 9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S19 CCC DEF6	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S20 CCN DEF	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S21 C-N ST	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S22 STCHCENT	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S23 C=N ST	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S24 BETA 1-2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S25 C=N-CCDEF	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S26 NEC-CCDEF	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S27 CC=CC ST	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S28 CCX DEF	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S29 CH ST18	3.51	3.51	3.51	3.51	1.71	1.71	1.71	1.71	1.71	1.71
S30 CH ST 7	2.89	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S31 CC ST 8	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S32 ST+DEF19	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S33 CCH DEF9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S34 CCHDEF20	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S35 CCHDEF12	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S36 CC ST 2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S37 CCC DEF5	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S38 CH ST18	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S39 CH ST 7	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S40 CC ST 8	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S41 ST+DEF19	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S42 CC ST 1-	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S43 CCHDEF 9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S44 CCHDEF 9	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S45 CCC DEF6	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S46 CCY1 DEF	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S47 CV1=H ST	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S48 PI CX1	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S49 PI CH 17	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S50 PI+TAU10	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S51 TAU CC16	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S52 TAU FED1	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S53 TAU RED2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S54 TAU RED3	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S55 PI CH 17	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S56 PI CH 5	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S57 TAU CC +	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S58 TAU CC16	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S59 PI CH=CH	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S60 TAU C-N	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S61 TAU C-N	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S62 TAU C-C	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S63 PICHCENT	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S64 PICX2=CC	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S65 PI CH17	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S66 PI+TAU10	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S67 TAU CC16	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S68 TAU FED1	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S69 TAU RED2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S70 TAU RED3	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S71 PI CH 17	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S72 PI CH 5	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S73 TAU CC +	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S74 TAU CC16	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
S75 PICHCY2	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71

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FREQUENCIES	1352.341	1364.741	1317.349	1312.546	1295.109	1286.333	1237.724	1220.424	1150.665	1185.354
31 CX ST	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
32 CCAL DEF	3.24	3.12	3.22	3.23	3.00	3.49	3.00	3.00	3.00	3.00
33 CH ST 18	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
34 CH ST 7	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
35 CC ST 5	3.75	3.12	3.63	3.33	3.85	3.00	3.00	3.00	3.00	3.00
36 ST+DEF13	1.39	3.01	3.01	3.00	3.00	3.00	3.00	3.00	3.00	3.00
37 CCH DEF9	1.73	3.14	3.67	3.65	3.00	3.00	3.00	3.00	3.00	3.00
38 CCH DEF20	3.34	3.64	3.40	3.21	3.89	3.01	3.00	3.00	3.00	3.00
39 CCC DEF12	3.31	3.28	3.39	3.39	3.31	3.01	3.00	3.00	3.00	3.00
40 CC ST 2	3.42	3.20	3.97	3.36	3.92	3.01	3.00	3.00	3.00	3.00
41 CCC DEF6	3.09	3.01	3.66	3.66	3.21	3.00	3.00	3.00	3.00	3.00
42 CH ST18	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
43 CH ST 7	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
44 CC ST 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
45 ST+DEF15	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
46 CCC DEF12	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
47 CC ST 14	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
48 CCH DEF 9	3.39	3.25	3.74	3.74	3.24	3.00	3.00	3.00	3.00	3.00
49 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
50 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
51 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
52 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
53 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
54 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
55 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
56 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
57 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
58 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
59 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
60 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
61 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
62 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
63 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
64 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
65 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
66 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
67 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
68 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
69 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
70 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
71 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
72 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
73 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
74 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
75 CCH DEF 9	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00



FREQUENCIES		568.748	981.577	975.557	944.147	513.684	549.369	818.832	812.401	745.214	739.195
S 1	CK ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 2	CCX1 DEF	0.02	0.04	0.02	0.03	0.01	0.00	0.00	0.00	0.00	0.00
S 3	CH ST1A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 4	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 5	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 5	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 7	CGH DEF9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 8	CGH DEF20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 9	CCODEF12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S10	CC ST 2	1.78	0.07	0.06	0.11	0.63	0.00	0.00	0.00	0.00	0.00
S11	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S12	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S13	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S14	CC ST 8	0.01	0.03	0.01	0.03	0.06	0.00	0.00	0.00	0.00	0.00
S15	ST+DEF19	0.18	0.65	0.23	0.77	0.44	0.00	0.00	0.00	0.00	0.00
S16	CC ST 14	0.01	0.08	0.03	0.21	0.12	0.00	0.00	0.00	0.00	0.00
S17	CCODEF 9	0.00	0.01	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00
S18	CCODEF 9	0.02	0.06	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
S19	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S20	CCN DEF	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S21	C-N ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S22	STCHCENT	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S23	C-N ST	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S24	BETA 1-2	0.23	0.01	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00
S25	C-N+DEF	0.75	0.06	0.05	2.06	1.96	0.00	0.00	0.00	0.00	0.00
S26	N-C+DEF	0.17	0.02	0.01	8.65	10.28	0.00	0.00	0.00	0.00	0.00
S27	CC=CC ST	0.02	0.01	0.00	5.13	12.30	0.00	0.00	0.00	0.00	0.00
S28	CCX DEF	0.00	0.00	0.00	1.07	2.34	0.00	0.00	0.00	0.00	0.00
S29	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S30	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S31	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S32	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S33	CC DEF9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S34	CCODEF20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S35	CCODEF12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S36	CC ST 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S37	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S38	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S39	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S40	CC ST 8	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S41	ST+DEF19	0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S42	CC ST 14	0.03	0.01	0.00	0.11	0.05	0.00	0.00	0.00	0.00	0.00
S43	CCODEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S44	CCODEF 9	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S45	CCC DEF6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S46	CCY1 DEF	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S47	CY1+ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S48	PI CX1	14.77	11.26	2.65	14.61	8.44	0.00	0.00	0.00	0.00	0.00
S49	PI CH 17	0.27	18.23	58.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S50	PI+TAU10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S51	TAU CC16	0.13	0.09	29.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S52	TAU PED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S53	TAU RED2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S54	TAU RED3	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S55	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S56	PI CH 5	38.01	11.40	0.91	17.93	0.00	0.00	0.00	0.00	0.00	0.00
S57	TAU CC 4	21.38	9.42	1.88	10.25	0.00	0.00	0.00	0.00	0.00	0.00
S58	TAU CC16	3.24	4.38	1.15	12.24	5.70	0.00	0.00	0.00	0.00	0.00
S59	PI CY=CH	1.32	0.01	0.03	3.52	0.15	0.00	0.00	0.00	0.00	0.00
S60	TAU C-N	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S61	TAU C-N	2.95	5.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S62	TAU C-C	0.27	0.77	2.63	0.62	0.05	0.00	0.00	0.00	0.00	0.00
S63	PICHCENT	4.54	13.40	3.35	7.23	0.01	0.00	0.00	0.00	0.00	0.00
S64	PICK2=CC	0.15	0.01	5.94	3.93	0.05	0.00	0.00	0.00	0.00	0.00
S65	PI CH 17	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S66	PI+TAU13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S67	TAU CC16	0.22	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S68	TAU PED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S69	TAU RED2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S70	TAU RED3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S71	PI CH 17	6.01	5.42	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S72	PI CH 5	4.99	4.82	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S73	TAU CC 4	0.66	0.66	0.22	0.05	0.01	0.00	0.00	0.00	0.00	0.00
S74	TAU CC16	4.35	3.89	1.26	0.15	0.01	0.00	0.00	0.00	0.00	0.00
S75	PICH=CY2	4.91	4.89	1.64	0.38	0.03	0.00	0.00	0.00	0.00	0.00

FREQUENCIES		686.844	671.004	615.755	605.661	602.127	534.012	517.044	478.580	414.495	398.707
S 1	CX ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 2	CCX1 DEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 3	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 4	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 5	CC ST 8	2.76	3.02	0.03	0.00	0.22	3.51	0.00	0.00	0.00	0.00
S 6	ST+DEF19	0.51	0.35	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
S 7	CCH DEF9	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 8	CCF+DEF20	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S 9	CCDEF12	1.19	0.87	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
S10	CC ST 2	0.82	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S11	CCC DEF6	13.20	15.23	0.16	0.03	1.35	26.80	0.37	0.00	0.00	0.00
S12	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S13	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S14	CC ST 8	0.00	0.00	0.67	5.87	7.10	0.30	0.49	0.00	0.00	0.00
S15	ST+DEF19	0.07	0.02	0.19	0.06	0.22	0.73	1.86	0.00	0.00	0.00
S16	CC ST 14	0.03	0.00	0.05	0.00	0.00	0.00	0.14	0.00	0.00	0.00
S17	CCHDEF 9	0.00	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00
S18	CCHDEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S19	CCC DEF6	0.24	0.21	8.42	36.25	38.74	0.00	0.00	0.00	0.00	0.00
S20	CCN DEF	0.02	0.00	0.35	0.27	0.64	2.96	9.04	0.00	0.00	0.00
S21	C-N ST	1.20	0.83	0.00	0.00	0.02	2.69	2.02	0.00	0.00	0.00
S22	STCHCENT	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S23	C-N ST	0.26	0.28	0.01	0.02	0.06	0.18	0.00	0.00	0.00	0.00
S24	BETA 1-2	0.09	0.11	0.04	0.03	0.07	0.37	0.09	0.00	0.00	0.00
S25	C-N=CDEF	4.30	1.78	0.59	0.72	0.47	5.84	9.23	0.00	0.00	0.00
S26	N=C-CDEF	2.66	6.30	0.17	0.55	0.00	3.10	14.71	0.00	0.00	0.00
S27	CC=CC ST	0.67	0.62	0.01	0.04	0.01	2.34	7.38	0.00	0.00	0.00
S28	CCX DEF	0.00	0.00	0.00	0.00	0.00	0.00	14.39	0.00	0.00	0.00
S29	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S30	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S31	CC ST 8	2.70	2.29	0.04	0.03	0.15	3.03	1.26	0.00	0.00	0.00
S32	ST+DEF19	0.53	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S33	CCH DEF9	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S34	CCHDEF20	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S35	CCDEF12	1.16	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S36	CC ST 2	0.82	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S37	CCC DEF6	12.43	10.98	0.26	0.19	0.94	24.79	9.66	0.00	0.00	0.00
S38	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S39	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S40	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S41	ST+DEF19	0.22	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S42	CC ST 14	0.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S43	CCHDEF 9	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S44	CCHDEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S45	CCC DEF6	0.82	2.16	0.06	0.06	38.50	0.05	0.00	0.00	0.00	0.00
S46	CCY1 DEF	0.00	0.00	0.00	0.06	0.07	0.03	0.00	0.00	0.00	0.00
S47	CY1-H ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S48	PI CX1	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S49	PI CH 17	0.00	1.03	0.00	0.00	0.00	1.19	2.09	0.00	0.00	0.00
S50	PI+TAU10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S51	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S52	TAU RED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S53	TAU RED2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S54	TAU RED3	0.12	0.01	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00
S55	PI CH 17	12.88	2.09	0.00	0.00	0.02	0.76	1.25	0.00	0.00	0.00
S56	PI CH 5	4.75	6.18	0.00	0.00	0.03	0.48	0.77	0.00	0.00	0.00
S57	TAU CC 4	27.67	33.21	0.00	0.14	0.07	0.35	0.42	0.00	0.00	0.00
S58	TAU CC16	0.01	0.48	0.00	0.05	0.03	0.98	1.89	0.00	0.00	0.00
S59	PI CY=CH	3.47	2.95	0.00	0.06	0.01	3.41	7.68	0.00	0.00	0.00
S60	TAU C-N	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S61	TAU C-N	0.04	0.01	3.31	0.09	0.00	0.06	0.06	0.00	0.00	0.00
S62	TAU C-C	0.00	0.00	0.02	0.00	0.00	0.05	0.23	0.00	0.00	0.00
S63	PICHCENT	0.04	0.02	0.54	0.00	0.02	0.00	0.00	0.00	0.00	0.00
S64	PICX2=CC	0.08	0.09	27.32	1.63	0.94	0.01	0.00	0.00	0.00	0.00
S65	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S66	PI+TAU10	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S67	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S68	TAU RED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S69	TAU RED2	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S70	TAU RED3	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S71	PI CH 17	0.31	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S72	PI CH 5	0.10	0.09	24.67	1.68	1.00	0.10	0.31	0.00	0.00	0.00
S73	TAU CC 4	0.07	0.08	32.92	2.33	1.40	0.16	0.55	0.00	0.00	0.00
S74	TAU CC16	0.01	0.01	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S75	PICHCY2	0.12	0.04	0.01	0.02	0.02	0.03	0.12	0.00	0.00	0.00

FREQUENCIES

S 1	CX ST	369.480	349.337	266.277	254.443	178.560	143.489	74.175	55.352	46.904	0.0
S 2	CCX1 DEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 3	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 4	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 5	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 6	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 7	CCX DEF9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 8	CCX DEF20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S 9	CCX DEF12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S10	CC ST 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S11	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S12	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S13	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S14	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S15	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S16	CC ST 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S17	CH DEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S18	CH DEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S19	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S20	CCN DEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S21	C-N ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S22	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S23	C-N ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S24	BETA 1-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S25	C-N-CDEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S26	N-C-CDEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S27	CC=CC ST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S28	CCX DEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S29	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S30	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S31	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S32	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S33	CH DEF9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S34	CH DEF20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S35	CCX DEF12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S36	CC ST 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S37	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S38	CH ST18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S39	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S40	CC ST 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S41	ST+DEF19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S42	CC ST 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S43	CH DEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S44	CH DEF 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S45	CCC DEF6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S46	CCX DEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S47	CH ST 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S48	PI CX1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S49	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S50	PI+TAU10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S51	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S52	TAU RED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S53	TAU RED2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S54	TAU RED3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S55	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S56	PI CH 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S57	TAU CC 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S58	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S59	PI CV=CH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S60	TAU C-N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S61	TAU C-N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S62	TAU C-C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S63	PICHCNT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S64	PICX2=CC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S65	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S66	PI+TAU1C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S67	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S68	TAU RED1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S69	TAU RED2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S70	TAU RED3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S71	PI CH 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S72	PI CH 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S73	TAU CC 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S74	TAU CC16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S75	PICM=C12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

BUS
LILLE

AVI7

FREQUENCIES

S 1	CX ST	0.0	0.0	0.0	0.0
S 2	CCX1 DEF	0.0	0.0	0.0	0.0
S 3	CH ST18	0.0	0.0	0.0	0.0
S 4	CH ST 7	0.0	0.0	0.0	0.0
S 5	CC ST 8	0.0	0.0	0.0	0.0
S 6	ST+DEF19	0.0	0.0	0.0	0.0
S 7	CH DEF9	0.0	0.0	0.0	0.0
S 8	CHDEF20	0.0	0.0	0.0	0.0
S 9	CCDEF12	0.0	0.0	0.0	0.0
S10	CC ST 2	0.0	0.0	0.0	0.0
S11	CCC DEF6	0.0	0.0	0.0	0.0
S12	CH ST18	0.0	0.0	0.0	0.0
S13	CH ST 7	0.0	0.0	0.0	0.0
S14	CC ST 8	0.0	0.0	0.0	0.0
S15	ST+DEF19	0.0	0.0	0.0	0.0
S16	CC ST 14	0.0	0.0	0.0	0.0
S17	CHDEF 9	0.0	0.0	0.0	0.0
S18	CHDEF 9	0.0	0.0	0.0	0.0
S19	CCC DEF6	0.0	0.0	0.0	0.0
S20	CCN DEF	0.0	0.0	0.0	0.0
S21	C-N ST	0.0	0.0	0.0	0.0
S22	STCHCENT	0.0	0.0	0.0	0.0
S23	C-N ST	0.0	0.0	0.0	0.0
S24	BETA 1-2	0.0	0.0	0.0	0.0
S25	C-N=CDEF	0.0	0.0	0.0	0.0
S26	N=C-CDEF	0.0	0.0	0.0	0.0
S27	CC=CC ST	0.0	0.0	0.0	0.0
S28	CCX DEF	0.0	0.0	0.0	0.0
S29	CH ST18	0.0	0.0	0.0	0.0
S30	CH ST 7	0.0	0.0	0.0	0.0
S31	CC ST 8	0.0	0.0	0.0	0.0
S32	ST+DEF19	0.0	0.0	0.0	0.0
S33	CH DEF9	0.0	0.0	0.0	0.0
S34	CHDEF20	0.0	0.0	0.0	0.0
S35	CCDEF12	0.0	0.0	0.0	0.0
S36	CC ST 2	0.0	0.0	0.0	0.0
S37	CCC DEF6	0.0	0.0	0.0	0.0
S38	CH ST18	0.0	0.0	0.0	0.0
S39	CH ST 7	0.0	0.0	0.0	0.0
S40	CC ST 8	0.0	0.0	0.0	0.0
S41	ST+DEF19	0.0	0.0	0.0	0.0
S42	CC ST 14	0.0	0.0	0.0	0.0
S43	CHDEF 9	0.0	0.0	0.0	0.0
S44	CHDEF 9	0.0	0.0	0.0	0.0
S45	CCC DEF6	0.0	0.0	0.0	0.0
S46	CCY1 DEF	0.0	0.0	0.0	0.0
S47	CY1=H ST	0.0	0.0	0.0	0.0
S48	PI CX1	0.0	0.0	0.0	0.0
S49	PI CH 17	0.0	0.0	0.0	0.0
S50	PI*TAU10	0.0	0.0	0.0	0.0
S51	TAU CC16	0.0	0.0	0.0	0.0
S52	TAU RED1	0.0	0.0	0.0	0.0
S53	TAU RED2	0.0	0.0	0.0	0.0
S54	TAU RED3	0.0	0.0	0.0	0.0
S55	PI CH 17	0.0	0.0	0.0	0.0
S56	PI CH 5	0.0	0.0	0.0	0.0
S57	TAU CC 4	0.0	0.0	0.0	0.0
S58	TAU CC16	0.0	0.0	0.0	0.0
S59	PI CY=CH	0.0	0.0	0.0	0.0
S60	TAU C-N	0.0	0.0	0.0	0.0
S61	TAU C-N	0.0	0.0	0.0	0.0
S62	TAU C-C	0.0	0.0	0.0	0.0
S63	PICHCENT	0.0	0.0	0.0	0.0
S64	PICX2=CC	0.0	0.0	0.0	0.0
S65	PI CH 17	0.0	0.0	0.0	0.0
S66	PI*TAU10	0.0	0.0	0.0	0.0
S67	TAU CC16	0.0	0.0	0.0	0.0
S68	TAU RED1	0.0	0.0	0.0	0.0
S69	TAU RED2	0.0	0.0	0.0	0.0
S70	TAU RED3	0.0	0.0	0.0	0.0
S71	PI CH 17	0.0	0.0	0.0	0.0
S72	PI CH 5	0.0	0.0	0.0	0.0
S73	TAU CC 4	0.0	0.0	0.0	0.0
S74	TAU CC16	0.0	0.0	0.0	0.0
S75	PICH=CY2	0.0	0.0	0.0	0.0

FREQUENCIES ASSIGNMENT (PED)	1352.341 CCHDEF 9	1341.761 CCHDEF 9	1317.549 CCHDEF 9	1312.546 CC ST 14	1299.409 CC ST 14	1286.333 BETA 1-2	1237.724 PI CH 5	1220.424 BETA 1-2	1190.865 CCH DEF9	1185.354 CCH DEF9
ASSIGNMENT (PED)	C-N ST	BETA 1-2	CC ST 14	CCHDEF 9	CC ST 14	CC ST 14	TAU CC 4	CCH DEF9	CC ST 8	CC ST 8
1 K(CH)	4.6740	0.005	0.002	0.004	0.003	0.007	0.003	0.000	0.027	0.022
2 Q(CH)	0.0240	0.002	0.000	0.001	0.001	0.002	0.001	0.000	0.004	0.001
3 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 P(CH)	-0.0060	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.001	0.000
5 H(CCH)	0.1700	37.980	45.431	39.948	25.856	13.958	8.913	0.002	20.213	42.566
6 Q(CCH)	0.0015	0.501	0.709	0.272	-0.032	-0.064	-0.044	-0.000	-0.065	-0.380
7 M(CCH)	-0.0070	-1.746	-3.264	-2.691	-1.743	-0.269	-0.352	0.000	0.766	1.782
8 P(CCH)	0.0050	0.667	1.305	0.428	-0.088	-0.141	-0.067	0.000	0.221	1.266
9 K(CCH)	5.2+90	15.948	6.670	37.430	57.201	78.781	53.795	0.003	8.017	15.230
10 Q(CCH)	0.4950	-2.034	-0.938	-6.034	-12.067	-13.831	-9.522	-0.000	1.026	-1.355
11 M(CCH)	-0.2110	-1.035	-0.399	-2.562	-5.155	-6.134	-4.151	-0.000	-0.498	0.575
12 P(CCH)	0.3530	-0.586	-0.344	-2.098	-4.256	-4.834	-3.339	-0.000	0.285	1.009
13 H(CCCC)	0.4190	2.363	0.401	1.657	1.112	2.986	1.650	0.001	10.460	1.396
14 Q(CCCC)	-0.0090	0.149	0.020	0.086	0.061	0.184	0.097	0.000	0.629	0.052
15 M(CCCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16 P(CCCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17 F(CH)	0.3850	21.931	27.345	18.940	9.968	7.498	5.119	0.001	12.294	35.595
18 F(CCH)	0.2420	0.761	1.121	0.375	0.053	0.590	0.258	0.000	2.785	0.231
19 A	0.3730	0.002	0.022	0.002	0.028	0.012	0.055	49.912	0.003	0.001
20 B	0.3100	0.001	0.026	0.001	0.040	0.029	0.063	26.555	0.003	0.001
21 C	0.0300	-0.000	0.007	0.000	0.010	0.006	0.016	12.328	0.001	0.000
22 D	-0.0200	0.000	-0.003	-0.000	-0.003	-0.002	-0.006	6.521	0.000	-0.000
23 AC	0.0030	0.000	0.001	0.000	0.001	0.001	0.002	-0.674	-0.000	0.000
24 AM	0.0020	0.000	0.000	0.000	0.000	0.000	0.000	0.334	0.000	0.000
25 AP	0.0090	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.635	-0.000	-0.000
26 BG	-0.0420	0.000	0.004	0.000	0.006	0.005	0.009	6.448	0.001	0.000
27 BM	-0.0250	0.000	-0.000	0.000	0.000	-0.001	-0.001	-3.033	-0.000	-0.000
28 BP	-0.0490	0.000	-0.000	0.000	0.000	-0.000	-0.000	2.989	0.000	-0.000
29 K(CCH)	0.1000	0.976	1.189	2.413	0.244	0.758	7.381	0.001	12.055	0.006
30 H(CCC=C)	0.4190	1.704	0.918	0.542	0.006	0.372	1.404	0.000	1.921	0.005
31 F(CCC=C)	0.3000	0.275	0.151	0.687	0.042	0.517	0.740	0.000	0.204	0.016
32 P(CCCC)	0.3700	0.003	0.001	0.001	0.001	0.000	0.000	0.097	0.001	0.000
33 K(C-N)	5.5000	11.821	1.741	3.609	3.688	9.610	0.008	0.000	0.989	0.340
34 H(NC=C)	0.4000	0.206	0.359	0.112	0.158	0.769	0.394	0.000	0.123	0.070
35 F(NC=C)	0.4500	1.048	0.555	0.238	0.860	0.864	0.351	0.000	0.011	0.380
36 P(NCC)	0.3700	0.002	0.082	0.003	0.116	0.054	0.183	0.000	0.001	0.002
37 K(N=C)	8.0000	0.182	1.620	0.164	3.719	4.636	2.829	0.002	0.103	0.035
38 K(C-H)	4.5000	0.064	0.007	0.010	0.003	0.003	0.025	0.000	0.029	0.001
39 H(N=CH)	0.2700	1.438	2.703	1.727	1.599	0.352	7.449	0.000	5.771	0.014
40 F(N=CH)	0.5200	0.912	2.903	1.194	2.249	0.912	7.519	0.001	4.794	0.005
41 H(H-C-C)	0.3600	1.918	3.604	2.302	2.133	0.469	9.932	0.001	7.694	0.015
42 F(H-C-C)	0.2700	0.455	0.894	0.408	0.632	0.408	1.974	0.001	6.476	0.005
43 H(N=C-C)	0.4500	0.989	0.524	0.021	0.539	0.012	2.326	0.000	0.013	0.021
44 F(N=C-C)	1.5000	2.293	0.494	0.442	0.394	-0.033	1.920	-0.000	2.606	0.022
45 P(CH)	0.3700	0.005	0.051	0.005	0.006	0.019	0.154	0.000	0.001	0.000
46 H(C-N=C)	0.6000	0.356	0.276	0.052	2.449	0.332	2.353	0.000	0.012	0.048
47 F(C-N=C)	0.3500	0.437	0.212	0.325	0.224	0.914	0.189	0.000	0.015	0.011
48 TAU(C-N)	0.1300	0.000	0.002	0.000	0.001	0.018	0.029	0.001	0.000	0.000
49 TAU(C-N)	0.4100	0.002	0.007	0.001	0.021	0.282	0.333	0.000	0.001	0.001
50 TAU(C-CE)	0.1200	0.000	0.002	0.000	0.000	0.302	0.005	0.001	0.000	0.000
PEDSUM	100.012	100.013	100.014	100.009	99.995	99.996	99.999	99.992	99.993	99.991

AVI11



[illegible]

FREQUENCIES ASSIGNMENT (PED)	588.948 PI CH 5	581.577 PI CH 17	579.557 PI CH 17	544.147 PI CH 17	513.684 CC ST 2	549.369 PI+TAU10	818.832 PI+TAU10	812.401 CC=CC ST	749.214 PI CH 17	739.195 PI CH 17
ASSIGNMENT (PED)	TAU CC 4	PICHCENT	TAL CC16	PI CX1	PI CH 5	TAU PED2	TAU RED2	CC ST 2	PI CX1	PICH=CY2
1 K(CH)	4.6740	0.000	0.001	0.000	0.017	0.000	0.000	0.035	0.002	0.000
2 O(CH)	0.0240	-0.000	0.000	-0.001	-0.003	-0.000	-0.000	-0.009	-0.001	0.000
3 M(CH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 P(CH)	-0.0060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5 H(CCH)	0.1700	0.043	0.095	0.035	0.724	1.640	0.000	0.001	4.802	0.474
6 O(CCH)	0.0015	0.000	0.001	0.000	0.003	0.000	0.000	0.000	-0.000	-0.000
7 M(CCH)	-0.0070	0.000	0.001	0.000	0.004	0.000	0.000	0.000	0.001	0.001
8 P(CCH)	0.0050	-0.001	-0.002	-0.001	-0.006	-0.015	-0.000	-0.000	-0.019	-0.001
9 K(CCC)	5.2490	1.935	0.742	0.309	10.278	16.987	0.000	0.004	26.277	1.725
10 C(CCC)	0.4950	0.322	0.035	0.020	1.443	2.307	0.000	0.000	3.238	0.106
11 M(CCC)	-0.2110	-0.123	0.008	0.000	-0.571	-0.327	0.000	-0.000	-0.897	-0.017
12 P(CCC)	0.3530	0.094	-0.037	-0.011	0.344	0.482	0.000	0.000	0.939	0.058
13 H(CCCC)	0.4190	0.026	0.063	0.024	2.190	5.520	0.000	0.002	19.659	2.231
14 O(CCCC)	-0.0050	-0.000	-0.001	-0.000	-0.019	0.003	0.000	0.000	0.006	0.002
15 M(CCCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16 P(CCCC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17 F(CH)	0.3850	0.225	0.155	0.060	1.239	2.262	0.000	0.001	4.333	0.356
18 F(CCC)	0.2420	0.241	0.040	0.020	1.514	2.305	0.000	0.001	7.072	0.670
19 A	0.3730	70.635	59.231	68.951	42.821	29.804	70.257	75.573	64.731	76.950
20 B	0.3130	26.664	26.463	32.509	15.406	12.031	25.952	27.867	0.680	12.735
21 C	0.1330	-8.042	7.265	12.747	5.169	-4.434	-7.534	8.089	-0.110	-0.733
22 D	-0.0200	-6.531	-3.490	-0.805	2.152	1.562	10.045	-10.787	0.017	1.402
23 AC	0.0030	-0.622	-0.488	-0.538	0.216	0.034	0.065	0.626	0.010	1.096
24 AM	0.0020	0.295	-0.004	-0.001	-0.140	-0.091	-0.377	-0.404	0.007	0.688
25 AP	0.0050	-0.723	0.202	1.360	-0.185	-0.238	-1.695	-1.620	0.021	1.525
26 BO	-0.0420	5.364	4.026	4.412	1.137	0.956	-3.516	-3.773	0.016	-0.516
27 BM	-0.0250	-2.060	0.206	2.225	1.212	0.539	2.093	2.247	-0.008	0.412
28 BP	-0.0450	2.269	-0.667	-4.281	-1.258	0.196	4.102	2.263	0.103	1.810
29 K(CCC)	3.1000	0.015	0.001	0.001	0.673	1.473	0.000	0.001	11.163	1.216
30 H(CCC=C)	0.4190	0.001	0.005	0.002	0.021	0.122	0.000	0.000	0.008	0.194
31 F(CCC=C)	0.3000	0.016	0.006	0.003	0.031	0.077	0.000	0.000	4.478	0.385
32 P(CCCC)	0.3730	0.148	0.014	0.001	0.113	0.028	0.000	0.006	0.014	0.430
33 K(C=C)	5.5000	0.004	0.001	0.001	0.737	2.580	0.000	0.001	4.897	0.154
34 H(NC=C)	0.4000	0.009	0.009	0.004	0.117	0.243	0.000	0.001	0.006	0.023
35 F(NC=C)	0.4500	0.044	0.040	0.017	1.052	2.519	0.000	0.001	2.346	0.057
36 P(NC=C)	0.3700	1.315	0.010	0.027	3.519	0.145	0.000	0.001	0.374	0.515
37 K(N=C)	8.0000	0.079	0.001	0.002	0.114	0.026	0.000	0.000	0.288	0.136
38 K(C=C)	4.5000	0.005	0.000	0.000	0.052	0.077	0.000	0.000	0.010	0.000
39 H(N=C)	0.2700	0.063	0.003	0.003	0.555	0.538	0.000	0.000	0.283	0.003
40 F(N=C)	0.5200	0.370	0.002	0.003	0.475	0.332	0.000	0.000	0.011	0.006
41 F(H=C=C)	0.3600	0.084	0.003	0.004	0.754	0.717	0.000	0.000	0.278	0.000
42 F(H=C=C)	0.2700	0.047	0.002	0.002	0.579	0.732	0.000	0.000	1.534	0.091
43 H(N=C=C)	0.4600	0.076	0.007	0.006	2.250	5.423	0.000	0.000	0.614	0.375
44 F(N=C=C)	1.5000	0.106	0.008	0.006	1.929	4.101	0.000	0.000	1.474	0.234
45 P(CH)	0.3700	4.543	13.399	5.542	3.626	0.055	0.011	0.029	0.023	0.447
46 H(C=N=C)	0.8000	0.044	0.051	0.044	7.454	8.866	0.000	0.000	2.131	0.400
47 F(C=N=C)	0.3500	0.121	0.008	0.007	0.967	0.819	0.000	0.000	1.235	0.148
48 TAU(C=N)	0.1300	0.141	0.413	0.005	0.014	0.000	0.000	0.001	0.000	0.000
49 TAU(C=N)	0.4100	2.851	5.925	2.633	0.623	0.047	0.003	0.014	0.004	0.225
50 TAU(C=CE)	0.1200	0.267	0.771	0.349	0.223	0.008	0.001	0.005	0.001	0.000
PEDSUM	99.998	99.998	99.999	99.996	99.993	100.001	100.000	99.994	99.996	100.001

AVI 13



FREQUENCIES ASSIGNMENT (PED)	536.844 TAU CC 4	671.014 TAU CC 4	615.755 TAU CC +	615.651 CCC DEF6	602.127 CCC DEF6	594.112 CCC DEF6	517.244 NFC DEF	475.481 CCN DEF	414.495 PICX2=CC	399.767 TAU CC16
ASSIGNMENT (PED)	CCC DEF5	CCC DEF5	PICX2=CC	CCC DEF5	CCC DEF6	CCC DEF6	CCC DEF	PI CVCH	TAU CC 4	PI CH 17
1 K(CH)	4.5742	0.005	0.001	0.001	0.012	0.018	0.027	0.021	0.002	0.001
2 C(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 M(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5 P(CH)	3.194	3.000	1.188	1.058	1.058	4.775	1.713	0.000	0.000	0.000
6 C(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7 M(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10 C(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11 M(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13 C(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14 M(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16 C(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 F(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 D	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 AC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 AP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25 AP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26 BC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27 BP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28 BP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 F(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38 K(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 F(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44 F(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45 P(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 H(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47 F(CH)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 TAU(C-N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49 TAU(C-N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 TAU(C-CE)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PEDSUM	59.597	92.958	100.002	92.958	92.958	100.002	99.999	92.958	100.002	100.006

FREQUENCIES ASSIGNMENT (PEL)	369.480 TAU GC16	349.337 TAU GC16	266.277 TAU GC16	254.443 TAU GC16	175.966 TAU GC16	142.489 TAU GC16	74.175 TAU GC16	55.352 TAU GC16	44.964 TAU GC16	0.0
ASSIGNMENT (PEL)	CCX DEF	PI CH 17	TAU C-C	TAU C-C	A-C-DEF	TAU C-C	C-N-DEF	PICKET	TAU C-N	0.0
1 KICHI	0.222	0.001	0.003	0.009	0.177	0.008	0.006	0.002	0.000	0.0
2 KICHI	-0.001	-0.000	-0.001	-0.001	-0.002	-0.000	-0.000	-0.000	-0.000	0.0
3 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
4 KICHI	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
5 KICHI	0.176	0.024	0.185	0.180	0.000	0.000	0.000	0.000	0.000	0.0
6 KICHI	-0.029	-0.001	-0.002	-0.001	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
7 KICHI	0.027	0.001	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.0
8 KICHI	-0.034	-0.001	-0.003	-0.002	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
9 KICHI	0.053	0.001	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.0
10 KICHI	0.249	0.171	0.346	0.338	0.220	0.402	0.503	0.177	0.002	0.0
11 KICHI	0.214	0.009	0.346	0.233	0.276	0.090	0.008	0.008	0.000	0.0
12 KICHI	0.093	0.004	0.001	0.000	-0.012	0.000	0.000	0.000	0.000	0.0
13 KICHI	-0.094	-0.005	-0.004	-0.005	-0.012	-0.000	-0.000	-0.000	-0.000	0.0
14 KICHI	0.490	0.122	1.345	0.085	0.009	0.277	0.022	0.007	0.000	0.0
15 KICHI	-0.050	0.141	0.046	0.283	0.184	0.007	0.019	0.006	0.000	0.0
16 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
17 KICHI	0.385	0.029	0.135	0.342	0.000	0.000	0.000	0.000	0.000	0.0
18 KICHI	0.240	0.032	0.342	0.065	0.386	0.000	0.000	0.000	0.000	0.0
19 A	0.370	0.214	1.133	0.265	1.345	0.000	0.000	0.000	0.000	0.0
20 B	0.310	0.190	0.342	0.065	0.386	0.000	0.000	0.000	0.000	0.0
21 C	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
22 C	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
23 AC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
24 AC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
25 AP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
26 BC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
27 BM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
28 BP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
29 KICHI	0.490	0.122	1.345	0.085	0.009	0.277	0.022	0.007	0.000	0.0
30 KICHI	0.176	0.024	0.185	0.180	0.000	0.000	0.000	0.000	0.000	0.0
31 KICHI	-0.029	-0.001	-0.002	-0.001	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
32 KICHI	0.027	0.001	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.0
33 KICHI	-0.034	-0.001	-0.003	-0.002	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
34 KICHI	0.053	0.001	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.0
35 KICHI	0.249	0.171	0.346	0.338	0.220	0.402	0.503	0.177	0.002	0.0
36 KICHI	0.214	0.009	0.346	0.233	0.276	0.090	0.008	0.008	0.000	0.0
37 KICHI	0.093	0.004	0.001	0.000	-0.012	0.000	0.000	0.000	0.000	0.0
38 KICHI	-0.094	-0.005	-0.004	-0.005	-0.012	-0.000	-0.000	-0.000	-0.000	0.0
39 KICHI	0.490	0.122	1.345	0.085	0.009	0.277	0.022	0.007	0.000	0.0
40 KICHI	-0.050	0.141	0.046	0.283	0.184	0.007	0.019	0.006	0.000	0.0
41 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
42 KICHI	0.385	0.029	0.135	0.342	0.000	0.000	0.000	0.000	0.000	0.0
43 KICHI	0.240	0.032	0.342	0.065	0.386	0.000	0.000	0.000	0.000	0.0
44 KICHI	0.370	0.214	1.133	0.265	1.345	0.000	0.000	0.000	0.000	0.0
45 KICHI	0.310	0.190	0.342	0.065	0.386	0.000	0.000	0.000	0.000	0.0
46 KICHI	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
47 KICHI	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.0
48 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
49 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
50 KICHI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
PEDSUM	100.005	100.010	99.994	99.999	100.001	99.995	100.000	100.000	100.000	0.0

FREQUENCY	ASSIGNMENT	USED	ASSIGNMENT	USED
1 K(CH)	4.670			
2 C(CH)	0.020			
3 M(CH)	0.000			
4 P(CH)	-0.000			
5 F(CH)	0.000			
6 C(CH)	0.000			
7 M(CH)	0.000			
8 P(CH)	0.000			
9 K(CH)	0.000			
10 C(CH)	0.000			
11 P(CH)	0.000			
12 F(CH)	0.000			
13 C(CH)	0.000			
14 M(CH)	0.000			
15 P(CH)	0.000			
16 K(CH)	0.000			
17 F(CH)	0.000			
18 C(CH)	0.000			
19 A	0.000			
20 B	0.000			
21 C	0.000			
22 D	0.000			
23 E	0.000			
24 F	0.000			
25 G	0.000			
26 H	0.000			
27 I	0.000			
28 J	0.000			
29 K	0.000			
30 L	0.000			
31 M	0.000			
32 N	0.000			
33 O	0.000			
34 P	0.000			
35 Q	0.000			
36 R	0.000			
37 S	0.000			
38 T	0.000			
39 U	0.000			
40 V	0.000			
41 W	0.000			
42 X	0.000			
43 Y	0.000			
44 Z	0.000			
45 AA	0.000			
46 AB	0.000			
47 AC	0.000			
48 AD	0.000			
49 AE	0.000			
50 AF	0.000			
PEDSUM	0.000			

A VII¹

GEOMETRIE SIMPLIFIEE SEPTEMBRE 1972

BENZYLIDENE-ANILINE

MOLECULE A 27 ATOMES

M	X(M)	Y(M)	Z(M)	KCNF	J	K	L	D1	D2	D3	A1	A2	A3	IS	KAL	AMAS
6	0.0	0.0	0.0	7	5	7	8	1.460	1.237	1.496	120.000	120.000	180.000	0	0	12.0112
7	1.460000	0.0	0.0	7	6	7	8	1.460	1.237	1.260	120.000	120.000	0.0	0	0	1.0080
8	2.678500	0.0	0.0	3	6	7	8	1.460	1.237	1.397	120.000	120.000	124.800	0	0	12.0112
9	3.574500	1.071273	0.000000	3	6	7	8	1.460	1.237	1.397	120.000	120.000	304.800	0	0	12.0112
20	1.548500	1.999260	0.0	3	1	6	5	1.397	1.397	1.084	120.000	120.000	180.000	0	1	1.0080
1	-0.698500	-0.690471	-0.993457	3	1	6	5	1.397	1.397	1.397	120.000	120.000	360.000	0	0	12.0112
15	-0.156500	-1.226240	1.764329	7	1	6	5	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
2	-2.095500	-0.690471	-0.993457	7	1	6	5	1.397	1.397	1.397	120.000	120.000	360.000	0	0	12.0112
19	-0.156500	1.226240	-1.764329	7	1	6	5	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
4	-2.095500	-0.690471	-0.993457	7	1	6	5	1.397	1.397	1.397	120.000	120.000	360.000	0	0	12.0112
18	-2.637500	1.226240	-1.764329	7	1	6	5	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
3	-2.794000	-0.070000	-0.000000	7	6	5	4	1.397	1.397	1.397	120.000	120.000	360.000	0	1	12.0112
16	-2.637500	-1.226240	1.764329	7	4	3	2	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
17	-3.878000	0.000000	0.000000	5	4	3	2	1.397	1.397	1.084	120.000	120.000	180.000	0	1	1.0080
10	4.273000	2.261614	0.216322	7	7	8	9	1.237	1.496	1.397	120.000	120.000	190.300	0	1	12.0112
14	4.273000	-0.119068	-0.216322	7	7	8	9	1.237	1.496	1.397	120.000	120.000	190.300	0	1	12.0112
21	3.731000	3.185258	0.384176	3	10	9	14	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
11	5.675000	2.261614	0.216322	3	10	9	14	1.397	1.397	1.084	120.000	120.000	180.000	0	1	12.0112
25	3.731000	-1.942711	-0.384176	7	10	9	14	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
13	5.670000	-0.119068	-0.216322	7	10	9	14	1.397	1.397	1.084	120.000	120.000	180.000	0	0	12.0112
22	6.212000	3.185258	0.384176	7	9	10	11	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
12	6.368500	1.071273	0.000000	7	9	10	11	1.397	1.397	1.084	120.000	120.000	180.000	0	1	12.0112
23	7.452500	-1.071273	-0.000000	5	11	12	13	1.397	1.397	1.084	120.000	120.000	180.000	0	0	1.0080
24	6.212000	-1.042711	-0.384176	7	11	12	13	1.397	1.397	1.084	120.000	120.000	180.000	0	1	12.0112
26	1.460000	0.000000	0.000000	7	14	9	8	1.397	1.496	1.237	120.000	120.000	10.300	0	1	0.0
27	-0.155500	-1.226240	1.764329	7	7	6	1	1.460	1.397	1.084	120.000	120.000	360.000	0	1	0.0





ESPECE ISOTOPIQUE 1

A VII 2

BENZYLIDENE-ANILINE GEOMETRIE SIMPLIFIEE SEPTEMBRE 1972

XG= 1.779933 YG= 0.537824 ZG= -0.000000 MG= 181.240300

I COORDONNEES PAR RAPPORT AU CENTRE DE GRAVITE

AM(I)

1	-2.478433	-1.223294	0.993457	12.011200
2	-3.375433	-1.223294	0.993457	12.011200
3	-4.573933	-0.537824	0.000000	12.011200
4	-3.875433	0.152647	-0.993457	12.011200
5	-2.478433	0.152647	-0.993457	12.011200
6	-1.779933	-0.537824	0.000000	12.011200
7	-0.319933	-0.537824	0.000000	14.006700
8	0.298567	0.533450	0.000000	12.011200
9	1.794567	0.533450	0.000000	12.011200
10	2.493067	1.723791	0.216322	12.011200
11	3.890067	1.723791	0.216322	12.011200
12	4.588567	0.533450	0.000000	12.011200
13	3.890067	-0.656891	-0.216322	12.011200
14	2.493067	-0.656891	-0.216322	12.011200
15	-1.936433	-1.764064	1.764329	1.008000
16	-4.417433	-1.764064	1.764329	1.008000
17	-5.657933	-0.537824	0.000000	1.008000
18	-4.417433	0.688417	-1.764329	1.008000
19	-1.936433	0.688417	-1.764329	1.008000
20	-0.231433	1.451437	0.000000	1.008000
21	1.951067	2.647434	0.384176	1.008000
22	4.432067	2.647434	0.384176	1.008000
23	5.672567	0.533450	-0.000000	1.008000
24	4.432067	-1.580535	-0.384176	1.008000
25	1.951067	-1.580535	-0.384176	1.008000
26	-0.319933	-0.537824	0.000000	0.0
27	-1.936433	-1.764064	1.764329	0.0

TENSEUR D INERTIE

I	II(I,1)	II(I,2)	II(I,3)
1	231.713531	-269.689420	0.000000
2	-269.689420	1826.346780	26.033745
3	0.000000	26.033745	1932.435248

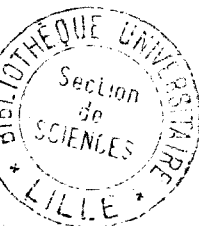
TENSEUR PRINCIPAL D INERTIE

1	187.327463	-0.000000	-0.000000
2	-0.000000	1861.430418	-0.000000
3	-0.000000	-0.000000	1941.737678

1	-2.447424	-1.066379	0.652829
2	-4.025855	-0.862502	0.726860
3	-4.600544	0.203253	0.061670
4	-3.796781	1.074532	-0.677551
5	-2.418230	0.860056	-0.751582
6	-1.843641	-0.225700	-0.086392
7	-0.403026	-0.449848	-0.183762
8	0.381233	0.449071	0.163424
9	1.857370	0.219395	0.084147
10	2.739379	1.142014	0.650523
11	4.117831	0.928437	0.576492
12	4.614273	-0.209558	-0.063916
13	3.732263	-1.133077	-0.630292
14	2.353812	-0.618600	-0.556260
15	-2.201475	1.939469	1.168982
16	-4.649534	-1.558570	1.300457
17	-5.676151	0.368676	0.119115
18	-4.242710	1.917022	-1.193704
19	-1.794651	1.536123	-1.325179
20	0.007348	1.382103	0.499966
21	2.354166	2.025939	1.147446
22	4.802225	1.645040	1.015970
23	5.683880	-0.375981	-0.121360
24	4.117477	-2.016102	-1.127215
25	1.669418	-1.635203	-0.995739
26	-0.403026	-0.449848	-0.163762
27	-2.201475	-1.939469	1.168982

MATRICE DE TRANSFORMATION

1	0.986723	0.162397	-0.002423
2	-0.153526	0.927751	-0.340158
3	-0.052993	0.336013	0.940365



MOMENTS PRINCIPAUX D INERTIE

IA	XX	IB	YY	IC	ZZ
187.3275	A.M.U*(A) ²	1861.4304	A.M.U*(A) ²	1941.7377	A.M.U*(A) ²
311.0450	G*CM *10 ⁻⁴⁰	3090.7833	G*CM *10 ⁻⁴⁰	3224.1282	G*CM *10 ⁻⁴⁰

CONSTANTES ROTATIONNELLES

A	B	C
0.0900 CM ⁻¹	0.0091 CM ⁻¹	0.0087 CM ⁻¹
1.787465 *10 ⁻¹⁷ ERG	0.179884 *10 ⁻¹⁷ ERG	0.172444 *10 ⁻¹⁷ ERG
2697.82 MHZ	271.50 MHZ	260.27 MHZ

* PARAMETRES D ASYMETRIE *

FO(A)	FO(C)	FO	BETA(POI)	BETA(OBL)	KAPA	SE	DELTA	PI
9.93677E+20	0.95842	8.97813E+00	8.93677E+00	-0.041358	-0.990787	-0.002309	0.004607	8.93687E+00

* CARACTERISTIQUE GLOBALE DU ROTATEUR *

***** ROTATEUR NONPLAN A TOUTE ASYMETRIQUE ALLONGEE *****