

Appendix II: G.S.C.D's obtained from ν_1 transitions of $C^{35}Cl_2^{37}ClF$ (in cm^{-1})

| J' | K'_a | K'_c | J | K_a | K_c | $\tilde{\nu}_0^{exp}/cm^{-1}$ | o-c | J' | K'_a | K'_c | J | K_a | K_c | $\tilde{\nu}_0^{exp}/cm^{-1}$ | o-c |
|------|--------|--------|-----|-------|-------|-------------------------------|-----|------|--------|--------|-----|-------|-------|-------------------------------|-----|
| 6 | 4 | 3 | 4 | 2 | 3 | 1.7836 | 5 | 14 | 1 | 13 | 13 | 1 | 13 | 2.2709 | 10 |
| 8 | 3 | 5 | 6 | 1 | 5 | 2.4317 | 0 | 14 | 2 | 13 | 13 | 0 | 13 | 2.2709 | 10 |
| 8 | 4 | 5 | 6 | 2 | 5 | 2.4317 | 0 | 14 | 6 | 9 | 12 | 4 | 9 | 4.3766 | -4 |
| 8 | 4 | 4 | 6 | 2 | 4 | 2.4318 | 6 | 14 | 5 | 9 | 12 | 3 | 9 | 4.3766 | -4 |
| 8 | 5 | 4 | 6 | 3 | 4 | 2.4318 | 5 | 14 | 7 | 8 | 12 | 5 | 8 | 4.3758 | -8 |
| 8 | 6 | 3 | 6 | 4 | 3 | 2.4311 | 0 | 14 | 6 | 8 | 12 | 4 | 8 | 4.3758 | -8 |
| 8 | 7 | 1 | 6 | 5 | 1 | 2.4223 | -3 | 14 | 8 | 7 | 12 | 6 | 7 | 4.3754 | -7 |
| 8 | 7 | 2 | 6 | 5 | 2 | 2.4358 | 2 | 14 | 7 | 7 | 12 | 5 | 7 | 4.3754 | -7 |
| 9 | 3 | 6 | 7 | 1 | 6 | 2.7564 | 3 | 14 | 14 | 1 | 12 | 12 | 1 | 4.4213 | -8 |
| 9 | 4 | 6 | 7 | 2 | 6 | 2.7564 | 3 | 14 | 14 | 0 | 12 | 12 | 0 | 4.4213 | -2 |
| 9 | 4 | 5 | 7 | 2 | 5 | 2.7553 | -4 | 14 | 9 | 6 | 12 | 7 | 6 | 4.3744 | -8 |
| 9 | 5 | 5 | 7 | 3 | 5 | 2.7553 | -4 | 14 | 8 | 6 | 12 | 6 | 6 | 4.3744 | -8 |
| 9 | 5 | 4 | 7 | 3 | 4 | 2.7558 | 9 | 14 | 13 | 2 | 12 | 11 | 2 | 4.3951 | -2 |
| 9 | 6 | 4 | 7 | 4 | 4 | 2.7558 | 7 | 14 | 9 | 5 | 12 | 7 | 5 | 4.3730 | -4 |
| 9 | 7 | 2 | 7 | 5 | 2 | 2.7410 | -10 | 14 | 13 | 1 | 12 | 11 | 1 | 4.3880 | 2 |
| 9 | 7 | 3 | 7 | 5 | 3 | 2.7560 | 9 | 14 | 12 | 3 | 12 | 10 | 3 | 4.3776 | -3 |
| 9 | 8 | 2 | 7 | 6 | 2 | 2.7613 | -1 | 14 | 10 | 4 | 12 | 8 | 4 | 4.3673 | -7 |
| 10 | 6 | 4 | 8 | 4 | 4 | 3.0795 | 12 | 14 | 12 | 2 | 12 | 10 | 2 | 4.3568 | -9 |
| 10 | 7 | 4 | 8 | 5 | 4 | 3.0795 | 8 | 15 | 7 | 9 | 13 | 5 | 9 | 4.7008 | -2 |
| 10 | 8 | 2 | 8 | 6 | 2 | 3.0641 | 4 | 15 | 6 | 9 | 13 | 4 | 9 | 4.7008 | -2 |
| 12 | 1 | 11 | 11 | 1 | 11 | 1.9459 | 3 | 15 | 8 | 8 | 13 | 6 | 8 | 4.7003 | -2 |
| 12 | 2 | 11 | 11 | 0 | 11 | 1.9459 | 3 | 15 | 7 | 8 | 13 | 5 | 8 | 4.7003 | -2 |
| 12 | 2 | 10 | 10 | 0 | 10 | 3.7294 | 3 | 15 | 15 | 1 | 13 | 13 | 1 | 4.7501 | -5 |
| 12 | 3 | 10 | 10 | 1 | 10 | 3.7294 | 3 | 15 | 15 | 0 | 13 | 13 | 0 | 4.7501 | -2 |
| 12 | 4 | 9 | 10 | 2 | 9 | 3.7291 | 1 | 15 | 9 | 7 | 13 | 7 | 7 | 4.6995 | -3 |
| 12 | 3 | 9 | 10 | 1 | 9 | 3.7291 | 1 | 15 | 8 | 7 | 13 | 6 | 7 | 4.6995 | -3 |
| 12 | 5 | 8 | 10 | 3 | 8 | 3.7287 | 0 | 15 | 10 | 6 | 13 | 8 | 6 | 4.6985 | -2 |
| 12 | 4 | 8 | 10 | 2 | 8 | 3.7287 | 0 | 15 | 9 | 6 | 13 | 7 | 6 | 4.6985 | -2 |
| 12 | 6 | 7 | 10 | 4 | 7 | 3.7288 | 4 | 15 | 14 | 1 | 13 | 12 | 1 | 4.7168 | -5 |
| 12 | 5 | 7 | 10 | 3 | 7 | 3.7288 | 4 | 15 | 11 | 5 | 13 | 9 | 5 | 4.6960 | -11 |
| 12 | 12 | 1 | 10 | 10 | 1 | 3.7648 | -3 | 15 | 10 | 5 | 13 | 8 | 5 | 4.6960 | -4 |
| 12 | 7 | 6 | 10 | 5 | 6 | 3.7282 | 4 | 15 | 12 | 4 | 13 | 10 | 4 | 4.6957 | -9 |
| 12 | 6 | 6 | 10 | 4 | 6 | 3.7282 | 4 | 15 | 12 | 3 | 13 | 10 | 3 | 4.6755 | -2 |
| 12 | 12 | 0 | 10 | 10 | 0 | 3.7648 | 10 | 16 | 6 | 11 | 14 | 4 | 11 | 5.0261 | 5 |
| 12 | 8 | 5 | 10 | 6 | 5 | 3.7272 | 3 | 16 | 5 | 11 | 14 | 3 | 11 | 5.0261 | 5 |
| 12 | 7 | 5 | 10 | 5 | 5 | 3.7272 | 4 | 16 | 8 | 9 | 14 | 6 | 9 | 5.0248 | -1 |
| 12 | 11 | 2 | 10 | 9 | 2 | 3.7410 | 3 | 16 | 7 | 9 | 14 | 5 | 9 | 5.0248 | -1 |
| 12 | 9 | 4 | 10 | 7 | 4 | 3.7256 | -3 | 16 | 9 | 8 | 14 | 7 | 8 | 5.0235 | -8 |
| 12 | 11 | 1 | 10 | 9 | 1 | 3.7290 | -6 | 16 | 8 | 8 | 14 | 6 | 8 | 5.0235 | -8 |
| 12 | 9 | 3 | 10 | 7 | 3 | 3.7154 | 8 | 17 | 5 | 12 | 15 | 3 | 12 | 5.3492 | -7 |
| 13 | 1 | 12 | 12 | 1 | 12 | 2.1087 | 9 | 17 | 6 | 12 | 15 | 4 | 12 | 5.3492 | -7 |
| 13 | 2 | 12 | 12 | 0 | 12 | 2.1087 | 9 | 17 | 7 | 11 | 15 | 5 | 11 | 5.3501 | 5 |
| 13 | 4 | 10 | 11 | 2 | 10 | 4.0530 | -2 | 17 | 6 | 11 | 15 | 4 | 11 | 5.3501 | 5 |
| 13 | 3 | 10 | 11 | 1 | 10 | 4.0530 | -2 | 17 | 8 | 10 | 15 | 6 | 10 | 5.3488 | -5 |
| 13 | 5 | 9 | 11 | 3 | 9 | 4.0527 | -3 | 17 | 7 | 10 | 15 | 5 | 10 | 5.3488 | -5 |
| 13 | 4 | 9 | 11 | 2 | 9 | 4.0527 | -3 | 17 | 9 | 9 | 15 | 7 | 9 | 5.3489 | 2 |
| 13 | 6 | 8 | 11 | 4 | 8 | 4.0527 | 0 | 17 | 8 | 9 | 15 | 6 | 9 | 5.3489 | 2 |
| 13 | 5 | 8 | 11 | 3 | 8 | 4.0527 | 0 | 17 | 10 | 8 | 15 | 8 | 8 | 5.3485 | 5 |
| 13 | 7 | 7 | 11 | 5 | 7 | 4.0520 | -3 | 17 | 9 | 8 | 15 | 7 | 8 | 5.3485 | 5 |
| 13 | 6 | 7 | 11 | 4 | 7 | 4.0520 | -3 | 17 | 17 | 1 | 15 | 15 | 1 | 5.4084 | 6 |
| 13 | 13 | 1 | 11 | 11 | 1 | 4.0929 | -6 | 17 | 17 | 0 | 15 | 15 | 0 | 5.4084 | 8 |
| 13 | 13 | 0 | 11 | 11 | 0 | 4.0929 | 2 | 17 | 11 | 7 | 15 | 9 | 7 | 5.3478 | 8 |
| 13 | 8 | 6 | 11 | 6 | 6 | 4.0513 | -2 | 17 | 10 | 7 | 15 | 8 | 7 | 5.3478 | 8 |
| 13 | 7 | 6 | 11 | 5 | 6 | 4.0513 | -2 | 17 | 16 | 2 | 15 | 14 | 2 | 5.3788 | -2 |
| 13 | 9 | 5 | 11 | 7 | 5 | 4.0502 | -2 | 17 | 12 | 6 | 15 | 10 | 6 | 5.3458 | 4 |
| 13 | 8 | 5 | 11 | 6 | 5 | 4.0502 | 0 | 17 | 16 | 1 | 15 | 14 | 1 | 5.3772 | 12 |
| 13 | 12 | 1 | 11 | 10 | 1 | 4.0579 | -6 | 17 | 11 | 6 | 15 | 9 | 6 | 5.3458 | 6 |
| 13 | 11 | 3 | 11 | 9 | 3 | 4.0525 | -2 | 17 | 15 | 3 | 15 | 13 | 3 | 5.3562 | 6 |
| 13 | 9 | 4 | 11 | 7 | 4 | 4.0461 | -3 | 17 | 12 | 5 | 15 | 10 | 5 | 5.3422 | 11 |
| 13 | 10 | 3 | 11 | 8 | 3 | 4.0350 | 3 | 17 | 15 | 2 | 15 | 13 | 2 | 5.3399 | 7 |
| 13 | 11 | 2 | 11 | 9 | 2 | 4.0334 | 6 | 17 | 13 | 4 | 15 | 11 | 4 | 5.3297 | 8 |

o-c (observed minus calculated) is in $10^{-4} cm^{-1}$