Appendix A

Dataset

pre-perihelion									
Date	r_H [AU]	Δ	β [°]	Telescope	Instrument	Molecule	$\Delta\lambda$/px [Å]	Slit [arcsec]	Observer/ Comments
23.-27. Apr. 1996	4.6	4.3	12.4	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.0	2.0	
28.-31. Mai 1996	4.3	3.5	9.6	OHP	CARELEC	NH$_2$	1.79	2.2	non-photometric
17.-26. June 1996	4.0	4.0	3.9	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.0	2.0	
17.-24. Aug. 1996	3.4	2.8	15.2	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.0	1.0/ 2.5	
10.-16. Sept. 1996	3.1	2.9	18.9	OHP	CARELEC	CN, NH$_2$ C$_2$	1.79	2.2	
1.-4. Okt. 1996	2.9	3.0	19.5	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.0	2.5	

post-perihelion									
Date	r_H [AU]	Δ	β [°]	Telescope	Instrument	Molecule	$\Delta\lambda$/px [Å]	Slit	Observer/ Comments
20./21. Sept. 1997	2.8	3.1	18.9	ESO 2.2m	EFOSC2	2.0	1.5		No flux calibration
29.Sep.-3.Okt.1997	2.9	3.1	18.8	ESO 2.2m	EFOSC2	CN, C$_2$, NH$_2$	2.04	1.5	
23./24. Nov. 1997	3.5	3.4	16.2	ESO 1.5m	B&C	CN, NH$_2$, C$_2$, C$_3$	1.89	2.36	non-photometric
6.-9. Dec. 1997	3.6	3.5	15.6	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.0	1.5	
19./20. Dec. 1997	3.8	3.6	15.0	ESO 1.5m	B&C	CN, NH$_2$, C$_2$, C$_3$	1.89	2.36	
20./21. Jan. 1998	4.1	4.0	13.8	ESO 1.5m	B&C	CN, NH$_2$ C$_2$, C$_3$	1.89	2.36	
21.-23. Jan 1998	4.1	4.0	15.8	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.04	2.0	
17.-19. Mar. 1998	4.7	4.8	12.1	Danish 1.5m	DFOSC	CN, NH$_2$ C$_2$, C$_3$	3.04	2.0	
21./22. Mar. 1998	4.7	4.8	12.0	ESO 1.5m	B&C	CN, NH$_2$ C$_2$, C$_3$	1.89	2.36	
17./18. Apr. 1998	5.0	5.2	11.2	ESO 1.5m	B&C	CN, C$_3$ C$_2$, C$_3$	1.89	2.36	non-photometric
7./8. Mai 1998	5.2	5.4	10.8	Danish 1.5m	DFOSC	-			Clouds
20.-22. Mai 1998	5.3	5.5	10.5	Danish 1.5m	DFOSC	-			No Flats
20.-21. Juli 1998	5.9	6.0	9.6	ESO 1.5m	B&C	-			Clouds
5.-8. Aug. 1998	6.0	6.0	9.4	ESO 1.5m	B&C	CN	1.89	1.6	
23.-25. Nov. 1998	7.0	7.0	8.0	ESO 3.6m	EFOSC2	CN, (C$_3$)	1.94	2.0	
13.-15. Jan. 1999	7.4	7.5	7.5	ESO 3.6m	EFOSC2	CN	1.94	2.0	
14./15. Mar. 1999	7.9	8.0	7.2	ESO 3.6m	EFOSC2	CN	1.94	2.0	
12.-14. June 1999	8.6	8.6	6.7	ESO 3.6m	EFOSC2	-			Clouds
12.-13. Nov. 1999	9.8	9.9	5.7	VLT/UT1	FORS1	CN	5.33	2.0	
5.-6. Apr. 2000	10.8	10.8	5.3	VLT/UT1	FORS1	(CN)	5.33	2.0	
28.-30. Sep. 2000	12.0	12.0	4.8	VLT/UT1	FORS1	(CN)	5.22	2.0	
20.-26. Jan. 2001	12.8	12.9	4.3	VLT/UT1	FORS1	(CN)	5.22	2.0	

Table A.1: Overview of the dataset used in this study. The first column gives the date of the observations, for observations runs covering several nights the date of the first and the last observation is given. Columns three to four list the heliocentric and geocentric distance of the comet and the phaseangle β. Columns five and six denote the telescope and the instrument used for the observations. For technical data on the instruments see table 7.1 in chapter 7. The molecules for which production rates have been derived using the Haser model are listed in column seven. For molecules in brackets only upper limits have been derived. Colums eight and nine show the wavelengths resolution obtained and the slit width used. THe last column gives some general comments on the observing conditions.