Supplementary Information

An integrated experimental and quantum-chemical investigation on the vibrational spectra of chlorofluoromethane

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Harmonic intensities predicted at CCSD(T) level of theory and with different basis sets is shown in Table **S.I**. A list of the observed band types for some of the assigned bands is listed in Table **S.II**. Sextic centrifugal-distortion terms computed at CCSD(T) level of theory employing different basis sets are listed in Table **S.III**. Vibration-rotation interaction constants and relevant Coriolis zeta parameters (computed by CFOUR program) are shown in Tables **S.IV-S.VIII** and **S.IX-S.XIII**, respectively.

Table S.I Harmonic intensities (km/mol) of $CH_2{}^{35}ClF$ evaluated at the CCSD(T) level of theory and employing different basis sets.

	cc-pCVTZ (fc)	cc-pCVTZ (all)	cc-pVQZ (fc)	aug-cc-pVQZ (fc)	cc-pV5Z (fc)	cc-pV5Z + CV [a]	cc-pV5Z + CV + aug [b]
ω_1	23.23	22.94	19.83	18.24	18.95	18.66	17.06
ω_2	0.05	0.06	0.09	0.17	0.07	0.08	0.15
ω_3	36.58	35.76	33.19	30.95	32.21	31.39	29.16
ω_4	157.74	157.42	159.66	162.70	162.86	162.54	165.57
ω_5	82.41	81.89	85.03	84.97	85.12	84.6	84.54
ω_6	1.33	1.34	1.37	1.43	1.43	1.44	1.50
ω_7	9.51	9.20	6.14	4.46	4.99	4.68	3.01
ω_8	2.65	2.62	2.52	2.46	2.57	2.54	2.47
ω_9	0.77	0.74	0.68	0.52	0.58	0.55	0.38

[a] CV effects evaluated by employing the cc-pCVTZ basis set (see text).
[b] The effects of diffuse function were evaluated by employing the aug-cc-pVQZ basis set (see text).

Table S.II Summary of observed band types for some of the assigned bands of CH_2ClF.

Band	Observed band type	Band	Observed band type
ν_6	mainly *b*	$\nu_3+2\nu_4$	*a*/*b*
ν_5	mainly *a*	$\nu_7+\nu_5$	*c*
ν_9	*c*	$\nu_1+\nu_9$	*c*
ν_4	*a*/*b*	$\nu_7+\nu_9$	*a*/*b*
$\nu_5+\nu_6$	*a*/*b*	$\nu_4+\nu_7$	*c*
ν_8	*c*	$\nu_1+\nu_8$	*c*
ν_3	*a*/*b*	$\nu_7+\nu_8$	*a*/*b*
ν_2	mainly *b*	$\nu_1+\nu_3$	*a*/*b*
$2\nu_5$	*a*/*b*	$\nu_3+\nu_7$	*c*
$\nu_4+\nu_5$	*a*/*b*	$\nu_2+\nu_7$	*c*
$\nu_2+\nu_6$	*a*/*b*	$\nu_6+\nu_7+\nu_8$	*a*/*b*
$2\nu_9$	*c*	$\nu_5+\nu_7+\nu_9$	*a*/*b*
$\nu_3+\nu_5$	*a*/*b*	$\nu_5+\nu_7+\nu_8$	*a*/*b*
$2\nu_4$	*a*/*b*	$\nu_7+2\nu_9$	*c*
$\nu_2+\nu_5$	*a*/*b*	$2\nu_4+\nu_7$	*c*
$\nu_8+\nu_9$	*a*/*b*	$\nu_4+\nu_7+\nu_8$	*a*/*b*
$\nu_4+\nu_8$	*c*	$\nu_3+\nu_7+\nu_9$	*a*/*b*
$\nu_3+\nu_4$	*a*/*b*	$\nu_3+\nu_4+\nu_7$	*c*
$2\nu_8$	*a*/*b*	$\nu_7+2\nu_8$	*c*
$2\nu_3$	mainly *b*	$\nu_3+\nu_7+\nu_8$	*a*/*b*
$\nu_2+\nu_3$	*a*/*b*	$2\nu_3+\nu_7$	*c*
$2\nu_2$	mainly *b*	$2\nu_1$	mainly *a*
ν_1	mainly *b*	$2\nu_2+\nu_7$	*c*
ν_7	*c*	$2\nu_7$	mainly *b*
$3\nu_4$	*a*/*b*		

Table S.III Sextic centrifugal-distortion constants (in kHz) of $CH_2{}^{35}ClF$ as computed by anharmonic force fields at the CCSD(T) level of theory employing different basis sets. The experimental data are also reported. [a]

	cc-pVQZ	cc-pVQZ + CV [b]	cc-pVQZ + CV[a] + aug [c]	Expt. [d]
Φ_J	2.81640×10^{-6}	2.82370×10^{-6}	2.92310×10^{-6}	$2.868(45) \times 10^{-6}$
Φ_{JK}	4.21100×10^{-5}	4.20115×10^{-5}	4.12793×10^{-5}	$1.83(29) \times 10^{-5}$
Φ_{KJ}	-0.00280	-0.00281	-0.00278	-0.002746(16)
Φ_K	0.02573	0.02580	0.02510	0.02552(22)
ϕ_J	1.07340×10^{-6}	1.07550×10^{-6}	1.11310×10^{-6}	$1.055(10) \times 10^{-6}$
ϕ_{JK}	1.90462×10^{-5}	1.90651×10^{-5}	1.95169×10^{-5}	$4.03(29) \times 10^{-5}$
ϕ_K	0.00318	0.00318	0.00318	0.00115(27)

[a] All the values (experimental and computed) reported in the Table refer to the Watson's A-reduced Hamiltonian in the I^r representation.
[b] CV effects evaluated by employing the cc-pCVTZ basis set (see text).
[c] The effects of diffuse functions have been evaluated by employing the aug-cc-pVTZ basis set (see text).
[d] Standard deviations in units of the last significant digits are given in parentheses. Data taken from S. Blanco, A. Lesarri, J. C. Lopez, J. L. Alonso and A. Guarnieri, J. Mol. Spectrosc. **174**, 397 (1995).

Table S.IV Vibration-rotation interaction constants at CCSD(T, fc)/cc-pVTZ

		VIB-ROT CONSTANT / (cm-1)			
AXIS	MODE	CORIOLIS	QUADRATIC	ANHARMONIC	TOTAL
1	6	0.0004788	-0.0037940	-0.0050054	-0.0083205
1	5	0.0017761	-0.0046908	0.0047418	0.0018271
1	9	0.0074374	-0.0000467	-0.0016043	0.0057864
1	4	-0.0041199	-0.0049464	0.0147072	0.0056410
1	8	-0.0004726	-0.0001159	0.0086280	0.0080395
1	3	0.0000313	-0.0002202	0.0041131	0.0039242
1	2	0.0052372	-0.0000082	-0.0007735	0.0044556
1	1	-0.0033659	-0.0007163	0.0081222	0.0040400
1	2	-0.0054505	-0.0000004	0.0076794	0.0022285
2	6	0.0000050	-0.0004584	0.0006957	0.0002423
2	5	0.0000518	-0.0001508	0.0011671	0.0010682
2	9	0.0001558	-0.0000015	0.0003628	0.0005171
2	4	-0.0000741	-0.0000604	0.0005243	0.0003899
2	8	0.0002153	-0.0000005	-0.0002854	-0.0000705
2	3	-0.0000614	-0.0000110	0.0000953	0.0000230
2	2	-0.0001477	-0.0000005	0.0001974	0.0000493
2	1	-0.0000576	-0.0000009	-0.0000383	-0.0000969
2	2	-0.0000646	-0.0000003	-0.0001414	-0.0002063
3	6	0.0001303	-0.0002476	0.0005004	0.0003832
3	5	0.0001356	-0.0000641	0.0010301	0.0011016
3	9	0.0002782	-0.0000071	0.0003510	0.0006221
3	4	-0.0002385	-0.0000274	0.0006445	0.0003786
3	8	-0.0002557	-0.0000146	-0.0000593	-0.0003296
3	3	0.0006196	0.0000000	0.0001638	0.0007834
3	2	-0.0005990	-0.0000011	0.0001475	-0.0004527
3	1	-0.0000240	-0.0000001	-0.0000807	-0.0001048
3	2	-0.0000182	-0.0000003	-0.0001446	-0.0001632

Table S.V Vibration-rotation interaction constants obtained at CCSD(T, fc)/aug-cc-pVTZ

		VIB-ROT CONSTANT / (cm-1)			
AXIS	MODE	CORIOLIS	QUADRATIC	ANHARMONIC	TOTAL
1	6	0.0004695	-0.0037541	-0.0048647	-0.0081494
1	5	0.0016787	-0.0045463	0.0047932	0.0019256
1	9	0.0099194	-0.0000424	-0.0016409	0.0082361
1	4	-0.0067809	-0.0050103	0.0149287	0.0031376
1	8	-0.0002530	-0.0001182	0.0087230	0.0083519
1	3	-0.0000101	-0.0002347	0.0044145	0.0041697
1	2	0.0051673	-0.0000083	-0.0008410	0.0043179
1	1	-0.0033153	-0.0006983	0.0079271	0.0039135
1	2	-0.0053477	-0.0000004	0.0073927	0.0020445
2	6	0.0000051	-0.0004615	0.0006914	0.0002350
2	5	0.0000532	-0.0001524	0.0011757	0.0010765
2	9	0.0001988	-0.0000016	0.0003691	0.0005664
2	4	-0.0001258	-0.0000606	0.0005322	0.0003457
2	8	0.0002031	-0.0000005	-0.0003019	-0.0000993
2	3	-0.0000402	-0.0000115	0.0000640	0.0000124
2	2	-0.0001482	-0.0000004	0.0002116	0.0000630
2	1	-0.0000582	-0.0000009	-0.0000353	-0.0000944
2	2	-0.0000650	-0.0000003	-0.0001384	-0.0002038
3	6	0.0001326	-0.0002478	0.0004963	0.0003811
3	5	0.0001468	-0.0000636	0.0010370	0.0011202
3	9	0.0002932	-0.0000067	0.0003547	0.0006413
3	4	-0.0002517	-0.0000287	0.0006573	0.0003769
3	8	-0.0002710	-0.0000150	-0.0000671	-0.0003531
3	3	0.0006126	0.0000000	0.0001453	0.0007579
3	2	-0.0005930	-0.0000013	0.0001579	-0.0004364
3	1	-0.0000237	-0.0000001	-0.0000793	-0.0001031
3	2	-0.0000181	-0.0000003	-0.0001451	-0.0001635

Table S.VI Vibration-rotation interaction constants obtained at CCSD(T, fc)/cc-pVQZ

		VIB-ROT CONSTANT / (cm-1)			
AXIS	MODE	CORIOLIS	QUADRATIC	ANHARMONIC	TOTAL
1	6	0.0004795	-0.0038042	-0.0049480	-0.0082727
1	5	0.0017631	-0.0045878	0.0046739	0.0018491
1	9	0.0086496	-0.0000454	-0.0016696	0.0069346
1	4	-0.0054466	-0.0050193	0.0148094	0.0043436
1	8	-0.0003300	-0.0001177	0.0086881	0.0082404
1	3	0.0000112	-0.0002356	0.0043406	0.0041163
1	2	0.0052153	-0.0000096	-0.0007583	0.0044475
1	1	-0.0033605	-0.0007147	0.0080617	0.0039864
1	2	-0.0054308	-0.0000004	0.0075352	0.0021040
2	6	0.0000051	-0.0004623	0.0006892	0.0002319
2	5	0.0000541	-0.0001526	0.0011753	0.0010768
2	9	0.0001774	-0.0000015	0.0003518	0.0005276
2	4	-0.0001001	-0.0000607	0.0005313	0.0003704
2	8	0.0002171	-0.0000005	-0.0002988	-0.0000821
2	3	-0.0000541	-0.0000114	0.0000661	0.0000006
2	2	-0.0001527	-0.0000004	0.0001942	0.0000411
2	1	-0.0000584	-0.0000009	-0.0000421	-0.0001014
2	2	-0.0000654	-0.0000003	-0.0001419	-0.0002075
3	6	0.0001326	-0.0002486	0.0004944	0.0003783
3	5	0.0001455	-0.0000641	0.0010353	0.0011168
3	9	0.0002866	-0.0000070	0.0003415	0.0006211
3	4	-0.0002501	-0.0000285	0.0006535	0.0003749
3	8	-0.0002640	-0.0000149	-0.0000670	-0.0003459
3	3	0.0006365	0.0000000	0.0001447	0.0007812
3	2	-0.0006164	-0.0000012	0.0001440	-0.0004737
3	1	-0.0000242	-0.0000001	-0.0000846	-0.0001090
3	2	-0.0000184	-0.0000003	-0.0001471	-0.0001658

Table S.VII Vibration-rotation interaction constants obtained at CCSD(T, fc)/cc-pCVTZ

		VIB-ROT CONSTANT / (cm-1)			
AXIS	MODE	CORIOLIS	QUADRATIC	ANHARMONIC	TOTAL
1	6	0.0004820	-0.0038059	-0.0050175	-0.0083414
1	5	0.0017926	-0.0046918	0.0047211	0.0018220
1	9	0.0076746	-0.0000465	-0.0016467	0.0059815
1	4	-0.0043979	-0.0049598	0.0147922	0.0054346
1	8	-0.0004361	-0.0001165	0.0086470	0.0080944
1	3	0.0000263	-0.0002218	0.0041473	0.0039517
1	2	0.0052576	-0.0000083	-0.0007890	0.0044602
1	1	-0.0033730	-0.0007196	0.0081286	0.0040359
1	2	-0.0054752	-0.0000004	0.0076294	0.0021539
2	6	0.0000050	-0.0004597	0.0006976	0.0002429
2	5	0.0000523	-0.0001512	0.0011688	0.0010699
2	9	0.0001610	-0.0000015	0.0003598	0.0005192
2	4	-0.0000796	-0.0000610	0.0005280	0.0003874
2	8	0.0002167	-0.0000005	-0.0002867	-0.0000705
2	3	-0.0000606	-0.0000110	0.0000901	0.0000186
2	2	-0.0001491	-0.0000005	0.0001972	0.0000476
2	1	-0.0000580	-0.0000009	-0.0000399	-0.0000988
2	2	-0.0000650	-0.0000003	-0.0001421	-0.0002074
3	6	0.0001313	-0.0002480	0.0005013	0.0003846
3	5	0.0001383	-0.0000644	0.0010311	0.0011050
3	9	0.0002799	-0.0000071	0.0003481	0.0006209
3	4	-0.0002421	-0.0000277	0.0006493	0.0003795
3	8	-0.0002572	-0.0000147	-0.0000594	-0.0003313
3	3	0.0006222	0.0000000	0.0001602	0.0007825
3	2	-0.0006014	-0.0000012	0.0001473	-0.0004553
3	1	-0.0000243	-0.0000001	-0.0000824	-0.0001068
3	2	-0.0000184	-0.0000003	-0.0001463	-0.0001651

Table S.VIII Vibration-rotation interaction constants obtained at CCSD(T, all)/cc-pCVTZ

		VIB-ROT CONSTANT / (cm-1)			
AXIS	MODE	CORIOLIS	QUADRATIC	ANHARMONIC	TOTAL
1	6	0.0004849	-0.0038202	-0.0050261	-0.0083614
1	5	0.0018123	-0.0047074	0.0047336	0.0018385
1	9	0.0076875	-0.0000464	-0.0016744	0.0059667
1	4	-0.0044184	-0.0049704	0.0148545	0.0054657
1	8	-0.0004285	-0.0001172	0.0086699	0.0081242
1	3	0.0000259	-0.0002231	0.0041600	0.0039628
1	2	0.0052757	-0.0000084	-0.0007951	0.0044722
1	1	-0.0033811	-0.0007229	0.0081578	0.0040538
1	2	-0.0055013	-0.0000004	0.0076577	0.0021560
2	6	0.0000050	-0.0004608	0.0006984	0.0002426
2	5	0.0000527	-0.0001515	0.0011716	0.0010728
2	9	0.0001617	-0.0000015	0.0003601	0.0005203
2	4	-0.0000803	-0.0000613	0.0005310	0.0003894
2	8	0.0002193	-0.0000005	-0.0002875	-0.0000687
2	3	-0.0000613	-0.0000111	0.0000888	0.0000164
2	2	-0.0001509	-0.0000005	0.0001971	0.0000457
2	1	-0.0000582	-0.0000009	-0.0000398	-0.0000989
2	2	-0.0000653	-0.0000003	-0.0001410	-0.0002066
3	6	0.0001317	-0.0002485	0.0005018	0.0003851
3	5	0.0001394	-0.0000647	0.0010335	0.0011083
3	9	0.0002802	-0.0000071	0.0003483	0.0006214
3	4	-0.0002436	-0.0000278	0.0006526	0.0003813
3	8	-0.0002574	-0.0000148	-0.0000596	-0.0003318
3	3	0.0006269	0.0000000	0.0001594	0.0007863
3	2	-0.0006059	-0.0000012	0.0001471	-0.0004600
3	1	-0.0000244	-0.0000001	-0.0000824	-0.0001070
3	2	-0.0000185	-0.0000003	-0.0001456	-0.0001645

Table S.IX Relevant Coriolis zeta parameters calculated at CCSD(T, fc)/cc-pVTZ

AXIS IXYZ = 1			AXIS IXYZ = 2			AXIS IXYZ = 3		
Mode	Mode		Mode	Mode		Mode	Mode	
9	6	-0.1514069691	9	6	0.0273250867	5	6	0.4179692900
9	5	0.2230344525	9	5	0.2794872128	3	6	0.5181496698
4	9	0.2712049037	4	9	-0.2694461085	3	5	-0.7390610873
8	6	-0.0762665744	8	6	-0.1294131901	8	9	0.7638030029
8	5	0.0848954585	8	5	0.1361463837	3	6	-0.1201681467
8	4	-0.1824742238	8	4	0.1752049031	3	5	0.0267860316
3	9	0.0283308217	3	9	-0.3464402926	3	4	0.0777610100
3	8	0.0099013600	3	8	-0.2640890117	2	6	-0.0509073344
2	9	-0.0181092187	2	9	-0.3225510683	2	5	0.0056433779
2	8	-0.1006972682	2	8	0.4509035457	2	4	-0.0469441478
1	9	-0.7817592984	1	9	-0.4377085744	2	3	-0.8183557206
1	8	-0.4395112754	1	8	0.6957255389	1	6	0.0334270204
7	6	-0.0034796050	7	6	0.0458482609	1	5	-0.0010706045
7	5	0.0560361492	7	5	0.0102919601	1	4	0.0714910001
7	4	-0.0197255993	7	4	0.1054910912	1	3	0.5424829577
7	3	0.1000507755	7	3	0.8469777030	1	2	0.1198172549
7	2	-0.9886181678	7	2	0.0426188754	7	9	-0.1986545460
7	1	0.0528686981	7	1	0.0012510264	7	8	0.4733885638

Table S.X Relevant Coriolis zeta parameters calculated at CCSD(T, fc)/aug-cc-pVTZ

AXIS IXYZ = 1			AXIS IXYZ = 2			AXIS IXYZ = 3		
Mode	Mode		Mode	Mode		Mode	Mode	
9	6	-0.1528675542	9	6	0.0242628742	5	6	0.4233679620
9	5	0.2214384874	9	5	0.2862297406	3	6	0.5138817217
4	9	0.2767024628	4	9	-0.2758206528	3	5	-0.7375321409
8	6	-0.0725934001	8	6	-0.1308509178	8	9	0.7657170872
8	5	0.0773187406	8	5	0.1312629794	3	6	-0.1291451966
8	4	-0.1758188458	8	4	0.1640180639	3	5	0.0344661712
3	9	0.0293129050	3	9	-0.3639243460	3	4	0.0796180605
3	8	0.0041720091	3	8	-0.2258283692	2	6	-0.0492446553
2	9	-0.0223907061	2	9	-0.2861349274	2	5	0.0078214882
2	8	-0.1053307206	2	8	0.4707934689	2	4	-0.0594464382
1	9	-0.7918607973	1	9	-0.4246691735	2	3	-0.8192577491
1	8	-0.4221517365	1	8	0.7066206180	1	6	0.0324795340
7	6	-0.0039057486	7	6	0.0446202333	1	5	0.0021701468
7	5	0.0551435041	7	5	0.0155825545	1	4	0.0772008500
7	4	-0.0312265008	7	4	0.1131661385	1	3	0.5441700214
7	3	0.0421708963	7	3	0.8488970737	1	2	0.0904548966
7	2	-0.9922748819	7	2	-0.0096849169	7	9	-0.1839905543
7	1	0.0519604102	9	1	0.0015568157	7	8	0.4764689173

Table S.XI Relevant Coriolis zeta parameters calculated at CCSD(T, fc)/cc-pVQZ

AXIS IXYZ = 1			AXIS IXYZ = 2			AXIS IXYZ = 3		
Mode	Mode		Mode	Mode		Mode	Mode	
9	6	-0.1523582252	9	6	0.0258718945	5	6	0.4220794245
9	5	0.2216543495	9	5	0.2828275982	3	6	0.5158489911
4	9	0.2745104559	4	9	-0.2733509095	3	5	-0.7372986603
8	6	-0.0749743928	8	6	-0.1307334939	8	9	0.7643064026
8	5	0.0812914966	8	5	0.1346404129	3	6	-0.1250846536
8	4	-0.1802420111	8	4	0.1701567017	3	5	0.0316604904
3	9	0.0288463341	3	9	-0.3523853019	3	4	0.0819636767
3	8	0.0077561118	3	8	-0.2496319306	2	6	-0.0517108913
2	9	-0.0209719554	2	9	-0.3082573013	2	5	0.0096661177
2	8	-0.1041173827	2	8	0.4598787165	2	4	-0.0539834126
1	9	-0.7853361787	1	9	-0.4332234507	2	3	-0.8177440302
1	8	-0.4327252161	1	8	0.6990753885	1	6	0.0329084396
7	6	-0.0041335237	7	6	0.0449893329	1	5	-0.0002133760
7	5	0.0560619665	7	5	0.0120988196	1	4	0.0761233489
7	4	-0.0275748142	7	4	0.1115555038	1	3	0.5436044222
7	3	0.0778943995	7	3	0.8476996209	1	2	0.1095552873
7	2	-0.9902283948	7	2	0.0217610583	7	9	-0.1926672020
7	1	0.0532165965	7	1	0.0021379529	7	8	0.4749165699

Table S.XII Relevant Coriolis zeta parameters calculated at CCSD(T, fc)/cc-pCVTZ

AXIS IXYZ = 1			AXIS IXYZ = 2			AXIS IXYZ = 3		
Mode	Mode		Mode	Mode		Mode	Mode	
9	6	-0.1519127158	9	6	0.0273775545	5	6	0.4187393940
9	5	0.2234971643	9	5	0.2797096924	3	6	0.5183266366
4	9	0.2716606084	4	9	-0.2702501506	3	5	-0.7384716648
8	6	-0.0762010349	8	6	-0.1295107449	8	9	0.7632578686
8	5	0.0845753846	8	5	0.1354833467	3	6	-0.1201718144
8	4	-0.1819989538	8	4	0.1745326450	3	5	0.0264792936
3	9	0.0288627901	3	9	-0.3488467356	3	4	0.0790819075
3	8	0.0097793936	3	8	-0.2620459144	2	6	-0.0509065479
2	9	-0.0184061297	2	9	-0.3202293990	2	5	0.0068130822
2	8	-0.1014068835	2	8	0.4533595496	2	4	-0.0469969131
1	9	-0.7823473294	1	9	-0.4366248271	2	3	-0.8177475924
1	8	-0.4379479092	1	8	0.6958599555	1	6	0.0334443981
7	6	-0.0035931776	7	6	0.0456561938	1	5	-0.0014918574
7	5	0.0559141598	7	5	0.0099031857	1	4	0.0716123884
7	4	-0.0209889316	7	4	0.1052964726	1	3	0.5436065057
7	3	0.0957444490	7	3	0.8467859110	1	2	0.1180813356
7	2	-0.9889789407	7	2	0.0383891847	7	9	-0.1977867380
7	1	0.0528522616	7	1	0.0014972922	7	8	0.4745614757

Table S.XIII Relevant Coriolis zeta parameters calculated at CCSD(T, all)/cc-pCVTZ

AXIS IXYZ = 1			AXIS IXYZ = 2			AXIS IXYZ = 3		
Mode	Mode		Mode	Mode		Mode	Mode	
9	6\	-0.1557218487	9	6	0.0238718992	5	6	0.4270403845
9	5	0.2189683849	9	5	0.2820708108	3	6	0.5265259266
4	9	0.2722044541	4	9	-0.2775022446	3	5	-0.7256333453
8	6	-0.0745636550	8	6	-0.1301663489	8	9	0.7634495264
8	5	0.0771304780	8	5	0.1299150666	3	6	-0.1309898369
8	4	-0.1751511567	8	4	0.1655759167	3	5	0.0334028087
3	9	0.0283600830	3	9	-0.3534188807	3	4	0.0876970420
3	8	0.0081039254	3	8	-0.2533247799	2	6	-0.0588529244
2	9	-0.0168120696	2	9	-0.3064836144	2	5	0.0103171365
2	8	-0.1025811465	2	8	0.4592187853	2	4	-0.0574488758
1	9	-0.7912621831	1	9	-0.4277341604	2	3	-0.8175356827
1	8	-0.4272486498	1	8	0.7036383270	1	6	0.0342735538
7	6	-0.0045121938	7	6	0.0463548448	1	5	0.0025393397
7	5	0.0574686036	7	5	0.0172685327	1	4	0.0800502339
7	4	-0.0348406814	7	4	0.1165733344	1	3	0.5400308824
7	3	0.0916513752	7	3	0.8432360830	1	2	0.1159342750
7	2	-0.9890593500	7	2	0.0314119748	7	9	-0.1902866423
7	1	0.0450924686	7	1	0.0008221168	7	8	0.4818064735