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SUPPLEMENTARY MATERIAL TO
**Franck–Condon factors and observed band strength distribution
in the vibrational structure of the $\text{Ag}_2 D-X$ band system**

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TABLE I. Band-origin wavenumbers in cm^{-1} and FCFs for the $D1\Sigma u+ - X1\Sigma g+$ bands of $^{107}\text{Ag}_2$, $^{107}\text{Ag}^{109}\text{Ag}$ and $^{109}\text{Ag}_2$ (wavenumbers of the origins of the (0,0), (1,1), (2,2), (3,3) and (4,4) bands reported in Ref. 4 are: 39002.2, 38977.2, 38951.1, 38923.6 and 38894.4 cm^{-1} , respectively)

v'/v''	0	1	2	3	4	5	6
	0						
	ν_0 / cm^{-1}						
$^{107}\text{Ag}^{109}\text{Ag}$	39002.11	38810.99	38621.16	38432.61	38245.34	38059.35	37874.64
$^{107}\text{Ag}_2$	39002.05	38810.06	38619.36	38429.96	38241.85	38055.03	37869.49
$^{109}\text{Ag}_2$	39002.17	38811.93	38622.97	38435.28	38248.86	38063.70	37879.82
	FCFs						
$^{107}\text{Ag}^{109}\text{Ag}$	9.9416E-1	3.6158E-3	2.2152E-3	2.3866E-7	9.1935E-6	1.7943E-7	9.4644E-8
$^{107}\text{Ag}_2$	9.9414E-1	3.6365E-3	2.2146E-3	2.4550E-7	9.1849E-6	1.7964E-7	9.4733E-8
$^{109}\text{Ag}_2$	9.9400E-1	3.7753E-3	2.2153E-3	3.6381E-7	9.1155E-6	1.6912E-7	9.2336E-8
	1						
	ν_0 / cm^{-1}						
$^{107}\text{Ag}^{109}\text{Ag}$	39167.90	38976.79	38786.96	38598.41	38411.14	38225.14	38040.43
$^{107}\text{Ag}_2$	39168.60	38976.61	38785.91	38596.51	38408.40	38221.58	38036.04
$^{109}\text{Ag}_2$	39167.20	38976.97	38788.01	38600.32	38413.89	38228.74	38044.85
	FCFs						
$^{107}\text{Ag}^{109}\text{Ag}$	4.1626E-3	9.7813E-1	1.0452E-2	7.1925E-3	1.0020E-5	4.9550E-5	7.0147E-7
$^{107}\text{Ag}_2$	4.1862E-3	9.7805E-1	1.0513E-2	7.1930E-3	1.0148E-5	4.9517E-5	7.0166E-7
$^{109}\text{Ag}_2$	4.3427E-3	9.7759E-1	1.0804E-2	7.1970E-3	1.1467E-5	4.9227E-5	6.5526E-7

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TABLE I-S. Continued

ν'/ν''	0	1	2	3	4	5	6
2							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39331.29	39140.18	38950.35	38761.80	38574.53	38388.54	38203.82
$^{107}\text{Ag}_2$	39332.73	39140.74	38950.04	38760.64	38572.53	38385.70	38200.17
$^{109}\text{Ag}_2$	39329.86	39139.62	38950.66	38762.97	38576.55	38391.39	38207.51
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.5542E-3	1.3464E-2	9.4843E-1	2.0726E-2	1.5583E-2	7.3186E-5	1.6288E-4
$^{107}\text{Ag}_2$	1.550E-3	1.3541E-2	9.4823E-1	2.0846E-2	1.5589E-2	7.3923E-5	1.6284E-4
$^{109}\text{Ag}_2$	1.5328E-3	1.3907E-2	9.4744E-1	2.1275E-2	1.5597E-2	7.9038E-5	1.6199E-4
3							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39492.29	39301.17	39111.34	38922.79	38735.52	38549.53	38364.81
$^{107}\text{Ag}_2$	39494.44	39302.44	39111.75	38922.34	38734.23	38547.41	38361.88
$^{109}\text{Ag}_2$	39490.13	39299.90	39110.94	38923.25	38736.82	38551.67	38367.78
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.2340E-4	4.1802E-3	2.9945E-2	9.0288E-1	3.4075E-2	2.8062E-2	2.9612E-4
$^{107}\text{Ag}_2$	1.2382E-4	4.1658E-3	3.0114E-2	9.0251E-1	3.4272E-2	2.8083E-2	2.9880E-4
$^{109}\text{Ag}_2$	1.2438E-4	4.1121E-3	3.0717E-2	9.0141E-1	3.4800E-2	2.8092E-2	3.1146E-4
4							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39650.87	39459.76	39269.93	39081.38	38894.11	38708.12	38523.40
$^{107}\text{Ag}_2$	39653.72	39461.73	39271.03	39081.63	38893.52	38706.70	38521.17
$^{109}\text{Ag}_2$	39648.03	39457.80	39268.83	39081.14	38894.72	38709.56	38525.68
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.7837E-8	6.0355E-4	7.1447E-3	5.5441E-2	8.4026E-1	4.9485E-2	4.5217E-2
$^{107}\text{Ag}_2$	2.1241E-8	6.0549E-4	7.1103E-3	5.5748E-2	8.3965E-1	4.9766E-2	4.5263E-2
$^{109}\text{Ag}_2$	2.7485E-8	6.0653E-4	7.0069E-3	5.6578E-2	8.3833E-1	5.0339E-2	4.5252E-2
5							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39807.06	39615.95	39426.12	39237.57	39050.30	38864.31	38679.59
$^{107}\text{Ag}_2$	39810.59	39618.60	39427.90	39238.50	39050.39	38863.56	38678.03
$^{109}\text{Ag}_2$	39803.55	39613.31	39424.35	39236.66	39050.24	38865.08	38681.20
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	4.0384E-7	1.5698E-6	1.7843E-3	9.5640E-3	9.1202E-2	7.6068E-1	6.5298E-2
$^{107}\text{Ag}_2$	4.0146E-7	1.6523E-6	1.7895E-3	9.4987E-3	9.1692E-2	7.5979E-1	6.5655E-2
$^{109}\text{Ag}_2$	3.9588E-7	1.7547E-6	1.7884E-3	9.3434E-3	9.2701E-2	7.5838E-1	6.6201E-2
6							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39960.85	39769.74	39579.91	39391.36	39204.09	39018.10	38833.38
$^{107}\text{Ag}_2$	39965.04	39773.04	39582.35	39392.94	39204.83	39018.01	38832.48
$^{109}\text{Ag}_2$	39956.69	39766.45	39577.49	39389.80	39203.38	39018.22	38834.34

TABLE I-S. Continued

ν'/ν''	0	1	2	3	4	5	6
6							
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.8789E-8	2.3924E-6	1.6219E-5	4.0827E-3	1.0590E-2	1.3746E-1	6.6593E-1
$^{107}\text{Ag}_2$	2.8955E-8	2.3727E-6	1.6752E-5	4.0928E-3	1.0486E-2	1.3816E-1	6.6473E-1
$^{109}\text{Ag}_2$	2.8922E-8	2.3351E-6	1.7201E-5	4.0825E-3	1.0292E-2	1.3927E-1	6.6343E-1
7							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40112.24	39921.13	39731.29	39542.75	39355.48	39169.49	38984.77
$^{107}\text{Ag}_2$	40117.06	39925.07	39734.37	39544.97	39356.86	39170.04	38984.51
$^{109}\text{Ag}_2$	40107.45	39917.22	39728.26	39540.56	39354.14	39168.98	38985.10
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	4.0775E-11	2.9622E-7	7.6689E-6	8.5869E-5	7.9027E-3	9.6717E-3	1.9298E-1
$^{107}\text{Ag}_2$	4.4198E-11	2.9770E-7	7.5793E-6	8.8010E-5	7.9175E-3	9.5282E-3	1.9391E-1
$^{109}\text{Ag}_2$	4.8857E-11	2.9604E-7	7.4464E-6	8.9088E-5	7.8851E-3	9.3252E-3	1.9497E-1
8							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40261.23	40070.11	39880.28	39691.73	39504.46	39318.47	39133.76
$^{107}\text{Ag}_2$	40266.67	40074.67	39883.98	39694.57	39506.46	39319.64	39134.11
$^{109}\text{Ag}_2$	40255.83	40065.76	39876.64	39688.95	39502.52	39317.37	39133.48
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	5.4023E-11	2.4622E-9	1.6238E-6	1.6979E-5	3.1759E-4	1.3499E-2	6.8577E-3
$^{107}\text{Ag}_2$	5.3659E-11	2.5648E-9	1.6302E-6	1.6692E-5	3.2409E-4	1.3513E-2	6.6923E-3
$^{109}\text{Ag}_2$	5.1421E-11	2.6265E-9	1.6159E-6	1.6376E-5	3.2545E-4	1.3441E-2	6.5245E-3
9							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40407.82	40216.70	40026.87	39838.32	39651.05	39465.06	39280.35
$^{107}\text{Ag}_2$	40413.85	40221.86	40031.16	39841.76	39653.65	39466.83	39281.29
$^{109}\text{Ag}_2$	40401.84	40211.60	40022.64	39834.95	39648.53	39463.37	39279.49
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.3094E-12	4.4891E-10	3.4203E-8	6.2887E-6	2.7559E-5	9.3070E-4	2.0807E-2
$^{107}\text{Ag}_2$	1.3265E-12	4.4131E-10	3.5248E-8	6.3058E-6	2.6853E-5	9.4697E-4	2.0807E-2
$^{109}\text{Ag}_2$	1.2777E-12	4.2218E-10	3.5342E-8	6.2354E-6	2.6316E-5	9.4606E-4	2.0676E-2
10							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40552.00	40360.89	40171.06	39982.51	39795.24	39609.25	39424.53
$^{107}\text{Ag}_2$	40558.62	40366.62	40175.90	39986.52	39798.41	39611.59	39426.06
$^{109}\text{Ag}_2$	40545.46	40355.23	40166.27	39978.56	39792.16	39607.00	39423.12
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	6.3339E-13	4.4600E-11	1.5572E-9	2.5729E-7	1.9170E-5	3.1446E-5	2.3047E-3
$^{107}\text{Ag}_2$	6.4400E-13	4.4829E-11	1.5017E-9	2.6370E-7	1.9191E-5	3.0113E-5	2.3397E-3
$^{109}\text{Ag}_2$	6.1430E-13	4.3337E-11	1.4318E-9	2.6172E-7	1.8946E-5	2.9492E-5	2.3280E-3

TABLE I-S. Continued

v'/v''	0	1	2	3	4	5	6
11							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40693.79	40502.68	40312.85	40124.30	39937.03	39751.04	39566.32
$^{107}\text{Ag}_2$	40700.96	40508.97	40318.27	40128.87	39940.76	39753.94	39568.40
$^{109}\text{Ag}_2$	40686.71	40496.48	40307.52	40119.83	39933.40	39748.25	39564.37
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.0755E-13	2.3530E-12	4.6084E-10	2.2871E-9	1.3371E-6	4.8567E-5	1.9692E-5
$^{107}\text{Ag}_2$	2.1710E-13	2.3877E-12	4.6076E-10	2.0920E-9	1.3655E-6	4.8520E-5	1.7965E-5
$^{109}\text{Ag}_2$	2.0106E-13	2.2625E-12	4.4573E-10	1.9795E-9	1.3473E-6	4.7853E-5	1.7567E-5
12							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40833.18	40642.06	40452.23	40263.68	40076.41	39890.42	39705.71
$^{107}\text{Ag}_2$	40840.88	40648.89	40458.20	40268.79	40080.68	39893.86	39708.33
$^{109}\text{Ag}_2$	40825.58	40635.35	40446.39	40258.70	40072.27	39887.12	39703.24
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.9055E-15	3.2095E-12	6.0764E-13	2.8550E-9	1.0253E-11	5.3902E-6	1.0533E-4
$^{107}\text{Ag}_2$	3.6157E-15	3.3225E-12	6.1062E-13	2.8392E-9	2.5195E-11	5.4890E-6	1.0495E-4
$^{109}\text{Ag}_2$	2.6965E-15	3.1121E-12	5.4329E-13	2.7483E-9	1.8188E-11	5.3958E-6	1.0341E-4
13							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	40970.17	40779.05	40589.22	40400.67	40213.40	40027.41	39842.70
$^{107}\text{Ag}_2$	40978.39	40786.40	40595.70	40406.30	40218.18	40031.36	39845.83
$^{109}\text{Ag}_2$	40962.08	40771.84	40582.88	40395.19	40208.77	40023.61	39839.73
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	5.1114E-16	3.8581E-13	1.6432E-11	3.9492E-11	1.2119E-8	2.1381E-8	1.7931E-5
$^{107}\text{Ag}_2$	4.2185E-16	4.1490E-13	1.6939E-11	4.0094E-11	1.1970E-8	2.4722E-8	1.8214E-5
$^{109}\text{Ag}_2$	5.1247E-16	3.7086E-13	1.5863E-11	3.9152E-11	1.1606E-8	2.4084E-8	1.7900E-5
14							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	41104.75	40913.64	40723.81	40535.28	40347.99	40162.00	39977.28
$^{107}\text{Ag}_2$	41113.47	40921.48	40730.78	40541.38	40353.27	40166.45	39980.92
$^{109}\text{Ag}_2$	41096.19	40905.96	40716.99	40529.30	40342.88	40157.72	39973.84
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.0469E-15	1.8575E-17	2.8457E-12	4.5915E-11	7.8835E-10	3.7719E-8	2.9638E-7
$^{107}\text{Ag}_2$	1.0610E-15	1.8756E-16	3.0359E-12	4.7056E-11	7.9716E-10	3.6895E-8	3.2024E-7
$^{109}\text{Ag}_2$	1.0404E-15	1.8524E-19	2.7415E-12	4.4044E-11	7.7003E-10	3.5897E-8	3.1105E-7
15							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	41236.94	41045.83	40856.00	40667.45	40480.18	40294.20	40109.47
$^{107}\text{Ag}_2$	41246.14	41054.15	40863.45	40674.05	40485.93	40299.11	40113.58
$^{109}\text{Ag}_2$	41227.93	41037.69	40848.73	40661.04	40474.62	40289.46	40105.58
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.5699E-15	2.0713E-14	1.6784E-16	1.6100E-11	5.9965E-11	6.2840E-9	8.7173E-8
$^{107}\text{Ag}_2$	2.5665E-15	2.0428E-14	1.3919E-15	1.6974E-11	6.0876E-11	6.3305E-9	8.3939E-8
$^{109}\text{Ag}_2$	2.5072E-15	2.0414E-14	5.1069E-17	1.5475E-11	5.6757E-11	6.1057E-9	8.4409E-8

TABLE I-S. Continued

ν'/ν''	7	8	9	10
		0		
		ν_0 / cm^{-1}		
$^{107}\text{Ag}^{109}\text{Ag}$	37691.21	37509.04	37328.14	37148.51
$^{107}\text{Ag}_2$	37685.26	37502.29	37320.61	37140.20
$^{109}\text{Ag}_2$	37697.19	37515.82	37335.71	37156.85
		FCFs		
$^{107}\text{Ag}^{109}\text{Ag}$	1.0115E-8	2.4440E-9	4.6757E-10	1.1121E-10
$^{107}\text{Ag}_2$	1.0160E-8	2.4570E-9	4.7137E-10	1.1230E-10
$^{109}\text{Ag}_2$	9.7111E-9	2.3571E-9	4.4814E-10	1.0646E-10
		1		
		ν_0 / cm^{-1}		
$^{107}\text{Ag}^{109}\text{Ag}$	37857.00	37674.83	37493.93	37314.30
$^{107}\text{Ag}_2$	37851.83	37668.84	37487.16	37306.75
$^{109}\text{Ag}_2$	37862.22	37680.85	37500.74	37321.88
		FCFs		
$^{107}\text{Ag}^{109}\text{Ag}$	6.5187E-7	6.8620E-8	2.0323E-8	4.1707E-9
$^{107}\text{Ag}_2$	6.5234E-7	6.8909E-8	2.0422E-8	4.2029E-9
$^{109}\text{Ag}_2$	6.3795E-7	6.5818E-8	1.9629E-8	3.9991E-9
		2		
		ν_0 / cm^{-1}		
$^{107}\text{Ag}^{109}\text{Ag}$	38020.39	37838.22	37657.32	37477.69
$^{107}\text{Ag}_2$	38015.93	37832.97	37651.28	37470.88
$^{109}\text{Ag}_2$	38024.88	37843.51	37663.39	37484.54
		FCFs		
$^{107}\text{Ag}^{109}\text{Ag}$	1.3736E-6	2.6254E-6	2.5781E-7	9.4377E-8
$^{107}\text{Ag}_2$	1.3718E-6	2.6272E-6	2.5882E-7	9.4798E-8
$^{109}\text{Ag}_2$	1.2532E-6	2.5754E-6	2.4691E-7	9.1294E-8
		3		
		ν_0 / cm^{-1}		
$^{107}\text{Ag}^{109}\text{Ag}$	38181.38	37999.21	37818.31	37638.68
$^{107}\text{Ag}_2$	38177.64	37994.67	37812.99	37632.59
$^{109}\text{Ag}_2$	38185.15	38003.78	37823.67	37644.81
		FCFs		
$^{107}\text{Ag}^{109}\text{Ag}$	4.2201E-4	1.4958E-6	8.1025E-6	6.9989E-7
$^{107}\text{Ag}_2$	4.2208E-4	1.4878E-6	8.1081E-6	7.0248E-7
$^{109}\text{Ag}_2$	4.2053E-4	1.3001E-6	7.9664E-6	6.6878E-7
		4		
		ν_0 / cm^{-1}		
$^{107}\text{Ag}^{109}\text{Ag}$	38339.97	38157.80	37976.90	37797.27
$^{107}\text{Ag}_2$	38336.93	38153.96	37972.28	37791.88
$^{109}\text{Ag}_2$	38343.05	38161.68	37981.57	37802.71

TABLE I-S. Continued

ν'/ν''	7	8	9	10
4				
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	8.7347E-4	9.4741E-4	5.2799E-7	2.1304E-5
$^{107}\text{Ag}_2$	8.8090E-4	9.4805E-4	5.1575E-7	2.1322E-5
$^{109}\text{Ag}_2$	9.0736E-4	9.4505E-4	3.6822E-7	2.0993E-5
5				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	38496.16	38313.99	38133.09	37953.46
$^{107}\text{Ag}_2$	38493.79	38310.83	38139.14	37948.74
$^{109}\text{Ag}_2$	38498.57	38317.20	38137.08	37958.23
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	6.7365E-2	2.1083E-3	1.9270E-3	4.1798E-7
$^{107}\text{Ag}_2$	6.7451E-2	2.1257E-3	1.9294E-3	4.4132E-7
$^{109}\text{Ag}_2$	6.7414E-2	2.1705E-3	1.9236E-3	6.5563E-7
6				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	38649.95	38467.78	38286.88	38107.25
$^{107}\text{Ag}_2$	38648.24	38465.27	38283.59	38103.20
$^{109}\text{Ag}_2$	38651.71	38470.34	38290.23	38111.37
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	7.9326E-2	9.4400E-2	4.4054E-3	3.6400E-3
$^{107}\text{Ag}_2$	7.9735E-2	9.4538E-2	4.4411E-3	3.6465E-3
$^{109}\text{Ag}_2$	8.0230E-2	9.4437E-2	4.5072E-3	3.6352E-3
7				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	38801.34	38619.17	38438.27	38258.64
$^{107}\text{Ag}_2$	38800.26	38617.30	38435.62	38255.22
$^{109}\text{Ag}_2$	38802.47	38621.10	38440.99	38262.13
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	5.5968E-1	8.9165E-2	1.2552E-1	8.2379E-3
$^{107}\text{Ag}_2$	5.5818E-1	8.9585E-2	1.2572E-1	8.3036E-3
$^{109}\text{Ag}_2$	5.5706E-1	8.9987E-2	1.2551E-1	8.3893E-3
8				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	38950.33	38768.16	38587.26	38407.63
$^{107}\text{Ag}_2$	38949.87	38766.91	38585.22	38404.82
$^{109}\text{Ag}_2$	38950.85	38769.48	38589.37	38410.52
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	2.5472E-1	4.4725E-1	9.2560E-2	1.5909E-1
$^{107}\text{Ag}_2$	2.5584E-1	4.4550E-1	9.2936E-2	1.5934E-1
$^{109}\text{Ag}_2$	2.5681E-1	4.4474E-1	9.3245E-2	1.5900E-1

TABLE I-S. Continued

ν'/ν''	7	8	9	10
	9			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	39096.91	38914.74	38733.85	38554.22
$^{107}\text{Ag}_2$	39097.05	38914.09	38732.41	38552.00
$^{109}\text{Ag}_2$	39096.86	38915.49	38735.38	38556.52
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	3.0731E-3	3.1780E-1	3.3549E-1	8.7994E-2
$^{107}\text{Ag}_2$	2.9284E-3	3.1901E-1	3.3362E-1	8.8267E-2
$^{109}\text{Ag}_2$	2.8226E-3	3.1980E-1	3.3328E-1	8.8514E-2
	10			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	39241.10	39058.93	38878.03	38698.40
$^{107}\text{Ag}_2$	39241.82	39058.85	38877.17	38696.77
$^{109}\text{Ag}_2$	39240.49	39059.11	38879.00	38700.15
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	2.9285E-2	2.5077E-4	3.7559E-1	2.3185E-1
$^{107}\text{Ag}_2$	2.9245E-2	2.0070E-4	3.7676E-1	2.3000E-1
$^{109}\text{Ag}_2$	2.9049E-2	1.7845E-4	3.7736E-1	2.3006E-1
	11			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	39382.89	39200.72	39019.82	38840.19
$^{107}\text{Ag}_2$	39384.16	39201.20	39019.52	38839.11
$^{109}\text{Ag}_2$	39381.73	39200.36	39020.25	38841.40
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	5.0032E-3	3.7826E-2	1.2614E-3	4.2055E-1
$^{107}\text{Ag}_2$	5.0695E-3	3.7707E-2	1.4097E-3	4.2149E-1
$^{109}\text{Ag}_2$	5.0347E-3	3.7453E-2	1.4499E-3	4.2198E-1
	12			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	39522.28	39340.11	39159.21	38979.58
$^{107}\text{Ag}_2$	39524.09	39341.12	39159.44	38979.04
$^{109}\text{Ag}_2$	39520.60	39339.23	39159.12	38980.27
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	6.0827E-7	9.7515E-3	4.4813E-2	9.4610E-3
$^{107}\text{Ag}_2$	2.2017E-7	9.8633E-3	4.4566E-2	9.9287E-3
$^{109}\text{Ag}_2$	2.2334E-7	9.7792E-3	4.4285E-2	9.9637E-3
	13			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	39659.26	39477.09	39296.19	39116.56
$^{107}\text{Ag}_2$	39661.59	39478.63	39296.94	39116.54
$^{109}\text{Ag}_2$	39657.10	39475.73	39295.61	39116.76

TABLE I-S. Continued

ν'/ν''	7	8	9	10			
13							
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.9829E-4	4.1910E-5	1.7306E-2	4.8389E-2			
$^{107}\text{Ag}_2$	1.9686E-4	4.8085E-5	1.7474E-2	4.7968E-2			
$^{109}\text{Ag}_2$	1.9423E-4	4.6745E-5	1.7307E-2	4.7722E-2			
14							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39793.85	39611.68	39430.78	39251.15			
$^{107}\text{Ag}_2$	39796.68	39613.71	39432.027	39251.63			
$^{109}\text{Ag}_2$	39791.21	39609.84	39429.73	39250.87			
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	5.1135E-5	3.2535E-4	3.4282E-4	2.8225E-2			
$^{107}\text{Ag}_2$	5.1816E-5	3.2145E-4	3.6733E-4	2.8446E-2			
$^{109}\text{Ag}_2$	5.0745E-5	3.1766E-4	3.5768E-4	2.8163E-2			
15							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39926.04	39743.87	39562.97	39383.34			
$^{107}\text{Ag}_2$	39929.34	39746.38	39564.69	39384.29			
$^{109}\text{Ag}_2$	39922.95	39741.58	39561.47	39382.61			
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.8942E-6	1.2774E-4	4.6041E-4	1.3308E-3			
$^{107}\text{Ag}_2$	2.0026E-6	1.2912E-4	4.5171E-4	1.3955E-3			
$^{109}\text{Ag}_2$	1.9287E-6	1.2637E-4	4.4783E-4	1.3598E-3			
ν'/ν''	11	12	13	14	15	16	17
7							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38080.28	37903.19	37727.36	37552.80	37379.50	37207.45	37036.66
$^{107}\text{Ag}_2$	38076.09	37898.26	37721.69	37546.40	37372.38	37199.64	37028.16
$^{109}\text{Ag}_2$	38084.53	37908.20	37733.11	37559.28	37386.69	37215.35	37045.26
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	6.4776E-3	5.8373E-5	2.2843E-4	5.0418E-6	1.1708E-5	2.0874E-6	1.1209E-6
$^{107}\text{Ag}_2$	6.4928E-3	5.9253E-5	2.2890E-4	5.0426E-6	1.1749E-5	2.1003E-6	1.1289E-6
$^{109}\text{Ag}_2$	6.4704E-3	6.2454E-5	2.2633E-4	4.6766E-6	1.1432E-5	1.9987E-6	1.0808E-6
8							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38229.264	38052.18	37876.35	37701.80	37528.49	37356.44	37185.65
$^{107}\text{Ag}_2$	38225.70	38047.86	37871.30	37696.01	37521.99	37349.24	37177.76
$^{109}\text{Ag}_2$	38232.92	38056.59	37881.50	37707.66	37535.08	37363.74	37193.64
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.4065E-2	1.0950E-2	2.0163E-4	4.5232E-4	4.6287E-6	2.4131E-5	3.6875E-6
$^{107}\text{Ag}_2$	1.4175E-2	1.0981E-2	2.0427E-4	4.5353E-4	4.6127E-6	2.4217E-5	3.7091E-6
$^{109}\text{Ag}_2$	1.4272E-2	1.0937E-2	2.1066E-4	4.4874E-4	4.1764E-6	2.3611E-5	3.5254E-6

TABLE I-S. Continued

ν'/ν''	11	12	13	14	15	16	17
9							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38375.85	38198.77	38022.94	37848.38	37675.07	37503.03	37332.24
$^{107}\text{Ag}_2$	38372.88	38195.05	38018.48	37843.19	37669.17	37496.43	37324.95
$^{109}\text{Ag}_2$	38378.92	38202.59	38027.50	37853.67	37681.08	37509.74	37339.65
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.9253E-1	2.2189E-2	1.7684E-2	5.5039E-4	8.6242E-4	2.3327E-6	4.8032E-5
$^{107}\text{Ag}_2$	1.9281E-1	2.2359E-2	1.7743E-2	5.5707E-4	8.6527E-4	2.2988E-6	4.8214E-5
$^{109}\text{Ag}_2$	1.9233E-1	2.2451E-2	1.7662E-2	5.6757E-4	8.5643E-4	1.9363E-6	4.7093E-5
10							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38520.04	38342.96	38167.13	37992.56	37819.26	37647.22	37476.43
$^{107}\text{Ag}_2$	38517.65	38339.81	38163.25	37987.96	37813.94	37641.19	37469.71
$^{109}\text{Ag}_2$	38522.55	38346.22	38171.13	37997.29	37824.77	37653.37	37483.27
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	7.5260E-2	2.2242E-1	3.2615E-2	2.7360E-2	1.2878E-3	1.5896E-3	7.9356E-9
$^{107}\text{Ag}_2$	7.5386E-2	2.2267E-1	3.2855E-2	2.7460E-2	1.3027E-3	1.5959E-3	4.2198E-9
$^{109}\text{Ag}_2$	7.5618E-2	2.2208E-1	3.2924E-2	2.7318E-2	1.3170E-3	1.5797E-3	5.8962E-9
11							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38661.83	38484.74	38308.92	38134.35	37961.05	37789.00	37618.22
$^{107}\text{Ag}_2$	38659.98	38482.16	38305.59	38130.30	37956.28	37783.53	37612.05
$^{109}\text{Ag}_2$	38663.80	38487.46	38312.38	38138.54	37965.96	37794.62	37624.52
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	1.4332E-1	5.5944E-2	2.4482E-1	4.4820E-2	4.0602E-2	2.6880E-3	2.8379E-3
$^{107}\text{Ag}_2$	1.4167E-1	5.5910E-2	2.4497E-1	4.5134E-2	4.0761E-2	2.7182E-3	2.8511E-3
$^{109}\text{Ag}_2$	1.4202E-1	5.6170E-2	2.4433E-1	4.5162E-2	4.0526E-2	2.7332E-3	2.8214E-3
12							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38801.21	38624.13	38448.30	38273.74	38100.44	37928.39	37757.60
$^{107}\text{Ag}_2$	38799.91	38622.08	38445.52	38270.22	38096.21	37923.46	37751.98
$^{109}\text{Ag}_2$	38802.67	38626.44	38451.25	38277.41	38104.83	37933.49	37763.39
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	4.4534E-1	7.5243E-2	3.3569E-2	2.5580E-1	5.7636E-2	5.7804E-2	5.1181E-3
$^{107}\text{Ag}_2$	4.4583E-1	7.3933E-2	3.3413E-2	2.5576E-1	5.8008E-2	5.8039E-2	5.1740E-3
$^{109}\text{Ag}_2$	4.4639E-1	7.4422E-2	3.3703E-2	2.5518E-1	5.7991E-2	5.7675E-2	5.1823E-3
13							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	38938.20	38761.12	38585.29	38410.73	38237.42	38065.38	37894.59
$^{107}\text{Ag}_2$	38937.42	38759.58	38583.02	38407.73	38233.71	38060.96	37889.48
$^{109}\text{Ag}_2$	38939.16	38762.83	38587.74	38413.90	38241.32	38069.98	37899.88

TABLE I-S. Continued

ν'/ν''	11	12	13	14	15	16	17
13							
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.7898E-2	4.4434E-1	2.9987E-2	1.3347E-2	2.5227E-1	6.9215E-2	7.8888E-2
$^{107}\text{Ag}_2$	2.8796E-2	4.4419E-1	2.9131E-2	1.3160E-2	2.5195E-1	6.9609E-2	7.9206E-2
$^{109}\text{Ag}_2$	2.8722E-2	4.4503E-1	2.9564E-2	1.3422E-2	2.5159E-1	6.9565E-2	7.8682E-2
14							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39072.79	38895.71	38719.88	38545.32	38372.01	38199.96	38029.18
$^{107}\text{Ag}_2$	39072.50	38894.67	38718.10	38542.81	38368.79	38196.05	38024.57
$^{109}\text{Ag}_2$	39073.27	38896.94	38721.85	38548.02	38375.43	38204.09	38034.00
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	4.6967E-2	5.8209E-2	4.1516E-1	6.4559E-3	1.2802E-3	2.3288E-1	7.7215E-2
$^{107}\text{Ag}_2$	4.6349E-2	5.9601E-2	4.1426E-1	6.0704E-3	1.1960E-3	2.3223E-1	7.7572E-2
$^{109}\text{Ag}_2$	4.6211E-2	5.9305E-2	4.1561E-1	6.3077E-3	1.3060E-3	2.3221E-1	7.7550E-2
15							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	39204.98	39027.82	38852.07	38677.50	38504.20	38332.15	38161.37
$^{107}\text{Ag}_2$	39205.17	39027.33	38850.77	38675.48	38501.46	38328.71	38157.23
$^{109}\text{Ag}_2$	39205.01	39028.68	38853.59	38679.76	38507.17	38335.83	38165.74
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	4.2534E-2	3.9902E-2	9.9603E-2	3.5991E-1	1.4988E-6	2.7456E-3	1.9878E-1
$^{107}\text{Ag}_2$	4.2781E-2	3.9109E-2	1.0146E-1	3.5828E-1	9.5897E-7	2.9082E-3	1.9779E-1
$^{109}\text{Ag}_2$	4.2362E-2	3.9141E-2	1.0088E-1	3.6025E-1	3.3826E-7	2.6984E-3	1.9822E-1
ν'/ν''	18		19		20		21
7							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	36867.14		36698.86		36531.83		36366.06
$^{107}\text{Ag}_2$	36857.94		36688.99		36521.31		36354.90
$^{109}\text{Ag}_2$	36876.41		36708.80		36542.44		36377.32
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	3.7084E-7		1.5533E-7		6.1116E-8		2.5378E-8
$^{107}\text{Ag}_2$	3.7446E-7		1.5711E-7		6.1951E-8		2.5769E-8
$^{109}\text{Ag}_2$	3.5507E-7		1.4860E-7		5.8255E-8		2.4129E-8
8							
ν_0 / cm^{-1}							
$^{107}\text{Ag}^{109}\text{Ag}$	37016.12		36847.84		36680.82		36515.05
$^{107}\text{Ag}_2$	37007.55		36838.60		36670.92		36504.51
$^{109}\text{Ag}_2$	37024.79		36857.18		36690.82		36525.70
FCFs							
$^{107}\text{Ag}^{109}\text{Ag}$	2.3811E-6		7.8391E-7		3.5361E-7		1.4392E-7
$^{107}\text{Ag}_2$	2.3974E-6		7.9137E-7		3.5753E-7		1.4583E-7
$^{109}\text{Ag}_2$	2.2993E-6		7.5075E-7		3.3858E-7		1.3727E-7

TABLE I-S. Continued

ν'/ν''	7	8	9	10
	9			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	37162.71	36994.43	36827.41	36661.64
$^{107}\text{Ag}_2$	37154.73	36985.79	36818.10	36651.69
$^{109}\text{Ag}_2$	37170.80	37003.19	36836.83	36671.71
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	5.9403E-6	4.8096E-6	1.5427E-6	7.5515E-7
$^{107}\text{Ag}_2$	5.9723E-6	4.8417E-6	1.5570E-6	7.6321E-7
$^{109}\text{Ag}_2$	5.6659E-6	4.6516E-6	1.4776E-6	7.2377E-7
	10			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	37306.90	37138.62	36971.60	36805.83
$^{107}\text{Ag}_2$	37299.45	37130.55	36962.87	36796.46
$^{109}\text{Ag}_2$	37314.42	37146.82	36980.45	36815.33
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	9.3125E-5	8.6832E-6	9.3480E-6	2.8471E-6
$^{107}\text{Ag}_2$	9.3513E-5	8.7243E-6	9.4088E-6	2.8728E-6
$^{109}\text{Ag}_2$	9.1478E-5	8.2529E-6	9.0562E-6	2.7267E-6
	11			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	37448.68	37280.41	37113.38	36947.62
$^{107}\text{Ag}_2$	37441.84	37272.89	37105.21	36938.80
$^{109}\text{Ag}_2$	37455.67	37288.07	37121.70	36956.58
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	6.3486E-6	1.7688E-4	1.1343E-5	1.7651E-5
$^{107}\text{Ag}_2$	6.5770E-6	1.7770E-4	1.1384E-5	1.7766E-5
$^{109}\text{Ag}_2$	7.3761E-6	1.7405E-4	1.0721E-5	1.7131E-5
	12			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	37588.07	37419.79	37252.77	37087.00
$^{107}\text{Ag}_2$	37581.77	37412.82	37245.14	37078.72
$^{109}\text{Ag}_2$	37594.54	37426.94	37260.57	37095.45
	FCFs			
$^{107}\text{Ag}^{109}\text{Ag}$	4.9102E-3	4.5232E-5	3.3019E-4	1.2796E-5
$^{107}\text{Ag}_2$	4.9360E-3	4.6269E-5	3.3193E-4	1.2817E-5
$^{109}\text{Ag}_2$	4.8827E-3	4.8302E-5	3.2539E-4	1.1984E-5
	13			
	ν_0 / cm^{-1}			
$^{107}\text{Ag}^{109}\text{Ag}$	37725.06	37556.78	37389.76	37223.99
$^{107}\text{Ag}_2$	37719.27	37550.32	37382.64	37216.23
$^{109}\text{Ag}_2$	37731.03	37563.43	37397.06	37231.94

TABLE I-S. Continued

ν'/ν''	7	8	9	10
13				
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	9.0071E-3	8.2303E-3	1.6939E-4	6.0652E-4
$^{107}\text{Ag}_2$	9.1029E-3	8.2779E-3	1.7259E-4	6.1012E-4
$^{109}\text{Ag}_2$	9.0910E-3	8.1845E-3	1.7588E-4	5.9842E-4
14				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	37859.65	37691.37	37524.34	37358.58
$^{107}\text{Ag}_2$	37854.35	37685.41	37517.73	37351.31
$^{109}\text{Ag}_2$	37865.15	37697.54	37531.18	37366.06
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	1.0303E-1	1.4766E-2	1.3350E-2	4.7992E-4
$^{107}\text{Ag}_2$	1.0342E-1	1.4918E-2	1.3433E-2	4.8812E-4
$^{109}\text{Ag}_2$	1.0273E-1	1.4867E-2	1.3274E-2	4.9140E-4
15				
ν_0 / cm^{-1}				
$^{107}\text{Ag}^{109}\text{Ag}$	37991.83	37823.56	37656.56	37490.77
$^{107}\text{Ag}_2$	37987.02	37818.07	37650.39	37483.98
$^{109}\text{Ag}_2$	37996.89	37829.28	37662.92	37497.80
FCFs				
$^{107}\text{Ag}^{109}\text{Ag}$	7.9252E-2	1.2843E-1	2.2643E-2	2.0921E-2
$^{107}\text{Ag}_2$	7.9502E-2	1.2887E-1	2.2866E-2	2.1058E-2
$^{109}\text{Ag}_2$	7.9576E-2	1.2803E-1	2.2756E-2	2.0799E-2