Determination of the molecular dipole moment of bromofluoromethane: microwave Stark spectra and ab initio calculations. SUPPLEMENTARY MATERIAL

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Preprint submitted to J. Mol. Spectrosc. *8 November 2006*

Captions of the Tables

Table 1. $\Delta F = 0$, $|\Delta M_F| = 0$ Stark frequencies of the $J', K'_{-1}, K'_{+1} \leftarrow J'', K''_{-1}, K''_{+1}$ transitions (MHz) of $CH_2{}^{79}BrF$. The observed-calculated (o.-c.) differences (kHz) are related to the Stark shift components.

Table 1
$\Delta F = 0$, $|\Delta M_F| = 0$ Stark frequencies of the $J', K'_{-1}, K'_{+1} \leftarrow J'', K''_{-1}, K''_{+1}$ transitions (MHz) of $CH_2{}^{79}BrF$. The observed-calculated (o.-c.) differences (kHz) are related to the Stark shift components.

J'	K'_{-1}	K'_{+1}	J''	K''_{-1}	K''_{+1}	F	M_F	Frequency (MHz)	o.-c. (kHz)	Field (V/cm)
5	2	3	5	1	4	9/2	9/2	106786.366	–	0.00
5	2	3	5	1	4	9/2	9/2	106789.208	12.1	223.77
5	2	3	5	1	4	9/2	7/2	106788.273	42.5	223.77
5	2	3	5	1	4	9/2	5/2	106787.606	115.1	223.77
5	2	3	5	1	4	9/2	9/2	106789.947	-24.3	255.54
5	2	3	5	1	4	9/2	7/2	106788.791	41.4	255.54
5	2	3	5	1	4	9/2	5/2	106787.891	81.8	255.54
5	2	3	5	1	4	9/2	9/2	106790.777	60.0	283.86
5	2	3	5	1	4	9/2	7/2	106789.289	37.6	283.86
5	2	3	5	1	4	9/2	5/2	106788.168	49.5	283.86
5	2	3	5	1	4	9/2	3/2	106787.453	103.4	283.86
5	2	3	5	1	4	9/2	9/2	106791.642	65.1	314.59
5	2	3	5	1	4	9/2	7/2	106789.846	13.1	314.59
5	2	3	5	1	4	9/2	5/2	106788.499	20.3	314.59
5	2	3	5	1	4	9/2	9/2	106793.164	-14.7	368.12
5	2	3	5	1	4	9/2	7/2	106790.956	32.9	368.12
5	2	3	5	1	4	11/2	11/2	106781.571	–	0.00
5	2	3	5	1	4	11/2	11/2	106784.584	39.7	223.77
5	2	3	5	1	4	11/2	9/2	106783.763	78.8	223.77
5	2	3	5	1	4	11/2	7/2	106783.054	100.3	223.77
5	2	3	5	1	4	11/2	11/2	106785.344	-26.4	255.54
5	2	3	5	1	4	11/2	9/2	106784.359	65.1	255.54
5	2	3	5	1	4	11/2	7/2	106783.462	96.4	255.54
5	2	3	5	1	4	11/2	5/2	106782.762	137.7	255.54
5	2	3	5	1	4	11/2	9/2	106784.948	56.1	283.86
5	2	3	5	1	4	11/2	7/2	106783.840	65.1	283.86
5	2	3	5	1	4	11/2	5/2	106782.972	100.6	283.86
5	2	3	5	1	4	11/2	9/2	106785.580	-15.2	314.59
5	2	3	5	1	4	11/2	7/2	106784.328	65.2	314.59
5	2	3	5	1	4	11/2	5/2	106783.249	79.8	314.59
5	2	3	5	1	4	11/2	7/2	106785.254	37.2	368.12
5	2	3	5	1	4	11/2	5/2	106783.830	68.6	368.12
5	2	3	5	1	4	11/2	3/2	106782.806	110.4	368.12
3	2	1	3	1	2	9/2	9/2	107887.706	–	0.00
3	2	1	3	1	2	9/2	9/2	107889.554	45.8	44.55
3	2	1	3	1	2	9/2	7/2	107888.740	86.9	44.55
3	2	1	3	1	2	9/2	9/2	107892.889	196.9	87.37
3	2	1	3	1	2	9/2	7/2	107890.650	131.1	87.37
3	2	1	3	1	2	9/2	5/2	107890.650	129.0	87.37
3	2	1	3	1	2	9/2	3/2	107888.731	50.3	87.37
3	2	1	3	1	2	9/2	9/2	107896.180	19.6	130.19
3	2	1	3	1	2	9/2	7/2	107892.783	85.8	130.19
3	2	1	3	1	2	9/2	5/2	107892.783	62.2	130.19
3	2	1	3	1	2	9/2	3/2	107889.517	-36.5	130.19
3	2	1	3	1	2	9/2	9/2	107902.040	12.3	200.98
3	2	1	3	1	2	9/2	7/2	107896.625	120.6	200.98
3	2	1	3	1	2	9/2	5/2	107896.625	42.6	200.98
3	2	1	3	1	2	9/2	3/2	107891.269	12.1	200.98
3	2	1	3	1	2	9/2	7/2	107898.713	-1.7	241.38
3	2	1	3	1	2	9/2	5/2	107898.713	-120.8	241.38
3	2	1	3	1	2	9/2	3/2	107892.251	-54.8	241.38
5	2	4	5	1	5	11/2	11/2	110447.766	–	0.00
5	2	4	5	1	5	11/2	11/2	110445.412	21.2	200.98
5	2	4	5	1	5	11/2	9/2	110446.260	-11.9	200.98
5	2	4	5	1	5	11/2	7/2	110446.881	-95.4	200.98
5	2	4	5	1	5	11/2	11/2	110444.526	35.4	238.96
5	2	4	5	1	5	11/2	9/2	110445.661	-48.7	238.96

Table 1
-CONTINUED. $\Delta F = 0$, $|\Delta M_F| = 0$ Stark frequencies of the $J', K'_{-1}, K'_{+1} \leftarrow J'', K''_{-1}, K''_{+1}$ transitions (MHz) of $CH_2{}^{79}BrF$. The observed-calculated (o.-c.) differences (kHz) are related to the Stark shift components.

J'	K'_{-1}	K'_{+1}	J''	K''_{-1}	K''_{+1}	F	M_F	Frequency (MHz)	o.-c. (kHz)	Field (V/cm)
5	2	4	5	1	5	11/2	11/2	110443.181	1.1	288.00
5	2	4	5	1	5	11/2	9/2	110444.898	3.8	288.00
5	2	4	5	1	5	11/2	7/2	110446.260	-12.7	288.00
5	2	4	5	1	5	11/2	11/2	110441.086	-8.2	358.45
5	2	4	5	1	5	11/2	9/2	110443.586	-11.4	358.45
5	2	4	5	1	5	11/2	7/2	110445.628	-4.4	358.45
5	2	4	5	1	5	11/2	5/2	110447.016	-134.9	358.45
5	2	4	5	1	5	11/2	11/2	110439.368	-48.6	415.08
5	2	4	5	1	5	11/2	9/2	110442.505	-4.3	415.08
5	2	4	5	1	5	11/2	7/2	110445.095	-12.5	415.08
5	2	4	5	1	5	11/2	5/2	110446.944	-120.0	415.08
5	2	4	5	1	5	11/2	11/2	110435.337	-55.7	482.76
5	2	4	5	1	5	11/2	9/2	110441.253	-41.7	482.76
5	2	4	5	1	5	11/2	7/2	110444.500	-08.9	482.76
5	2	4	5	1	5	11/2	3/2	110448.664	54.8	482.76
5	2	4	5	1	5	11/2	11/2	110431.771	-30.1	597.41
5	2	4	5	1	5	11/2	9/2	110435.493	-25.7	597.41
5	2	4	5	1	5	11/2	7/2	110443.703	-32.8	597.41
5	2	4	5	1	5	13/2	13/2	110500.258	–	0.00
5	2	4	5	1	5	13/2	13/2	110496.155	17.3	254.85
5	2	4	5	1	5	13/2	11/2	110497.330	-35.1	254.85
5	2	4	5	1	5	13/2	9/2	110498.444	12.1	254.85
5	2	4	5	1	5	13/2	7/2	110499.244	-74.0	254.85
5	2	4	5	1	5	13/2	13/2	110494.400	24.2	310.79
5	2	4	5	1	5	13/2	11/2	110496.057	-37.9	310.79
5	2	4	5	1	5	13/2	9/2	110497.642	31.8	310.79
5	2	4	5	1	5	13/2	7/2	110498.792	-94.3	310.79
5	2	4	5	1	5	13/2	13/2	110492.511	27.5	365.01
5	2	4	5	1	5	13/2	11/2	110494.734	20.1	365.01
5	2	4	5	1	5	13/2	9/2	110496.839	133.5	365.01
5	2	4	5	1	5	13/2	7/2	110498.439	33.3	365.01
5	2	4	5	1	5	13/2	13/2	110490.776	21.4	411.29
5	2	4	5	1	5	13/2	11/2	110493.473	33.3	411.29
5	2	4	5	1	5	13/2	9/2	110495.865	03.2	411.29
5	2	4	5	1	5	13/2	7/2	110497.989	36.0	411.29
5	2	4	5	1	5	13/2	13/2	110487.783	151.8	490.01
5	2	4	5	1	5	13/2	11/2	110491.265	151.5	490.01
5	2	4	5	1	5	13/2	9/2	110494.391	87.8	490.01
5	2	4	5	1	5	13/2	7/2	110497.197	89.8	490.01
5	2	4	5	1	5	13/2	5/2	110499.311	-94.0	490.01
5	2	4	5	1	5	13/2	11/2	110487.332	68.9	611.22
5	2	4	5	1	5	13/2	9/2	110491.822	136.9	611.22
5	2	4	5	1	5	13/2	7/2	110495.583	-82.7	611.22
5	2	4	5	1	5	13/2	5/2	110498.995	-27.3	611.22
5	2	4	5	1	5	9/2	9/2	110462.324	–	0.00
5	2	4	5	1	5	9/2	9/2	110458.994	-2.8	244.14
5	2	4	5	1	5	9/2	7/2	110460.472	-57.7	244.14
5	2	4	5	1	5	9/2	5/2	110461.658	-70.9	244.14
5	2	4	5	1	5	9/2	9/2	110456.147	-7.9	343.25
5	2	4	5	1	5	9/2	7/2	110459.019	5.6	343.25
5	2	4	5	1	5	9/2	5/2	110461.131	20.4	343.25
5	2	4	5	1	5	9/2	9/2	110453.331	43.8	428.55
5	2	4	5	1	5	9/2	7/2	110457.786	48.9	428.55
5	2	4	5	1	5	9/2	5/2	110460.627	-41.5	428.55
5	2	4	5	1	5	9/2	9/2	110449.736	68.7	526.62
5	2	4	5	1	5	9/2	7/2	110453.038	-15.6	526.62
5	2	4	5	1	5	9/2	5/2	110460.152	-47.5	526.62