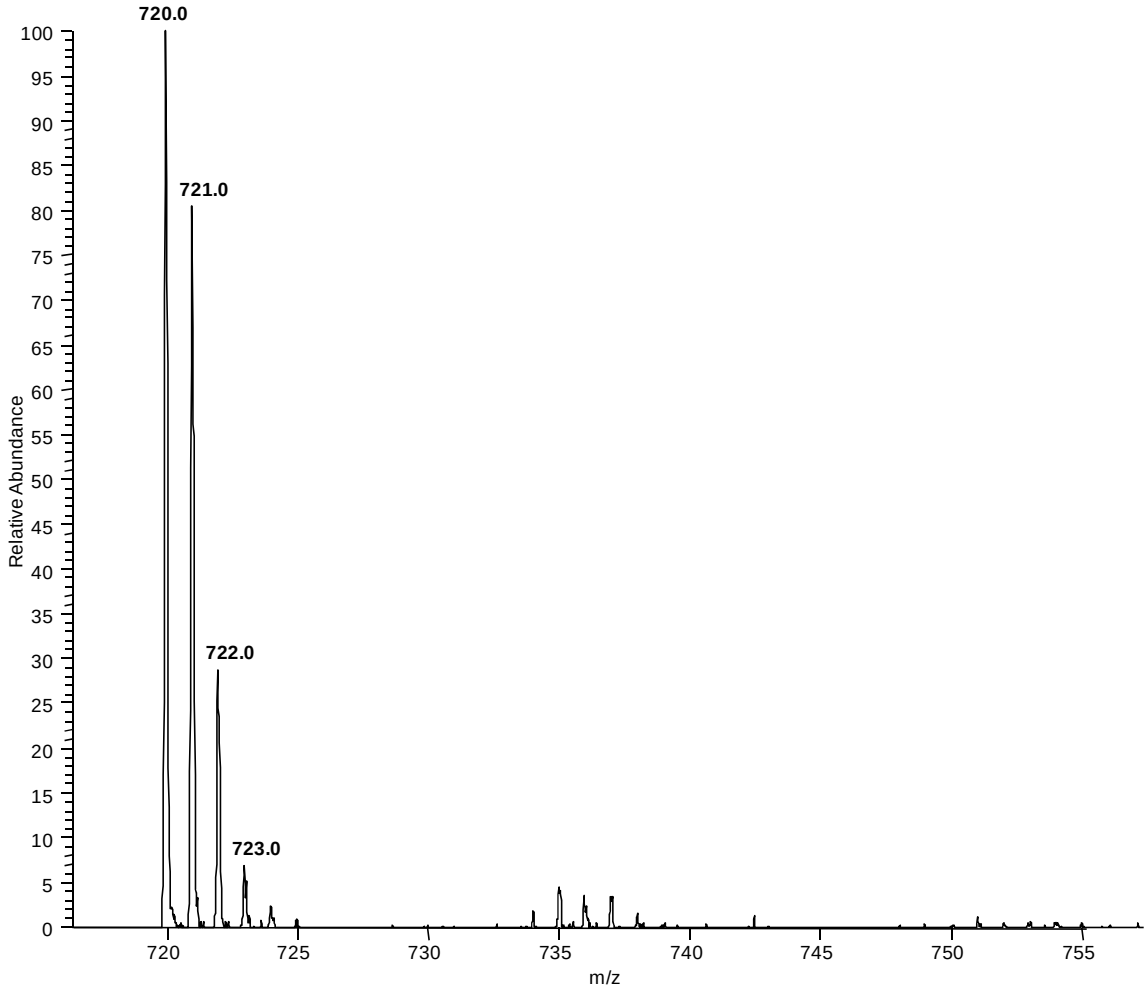

Figure 1S. Full scan MS spectrum of fullerene C_{60} in positive mode.

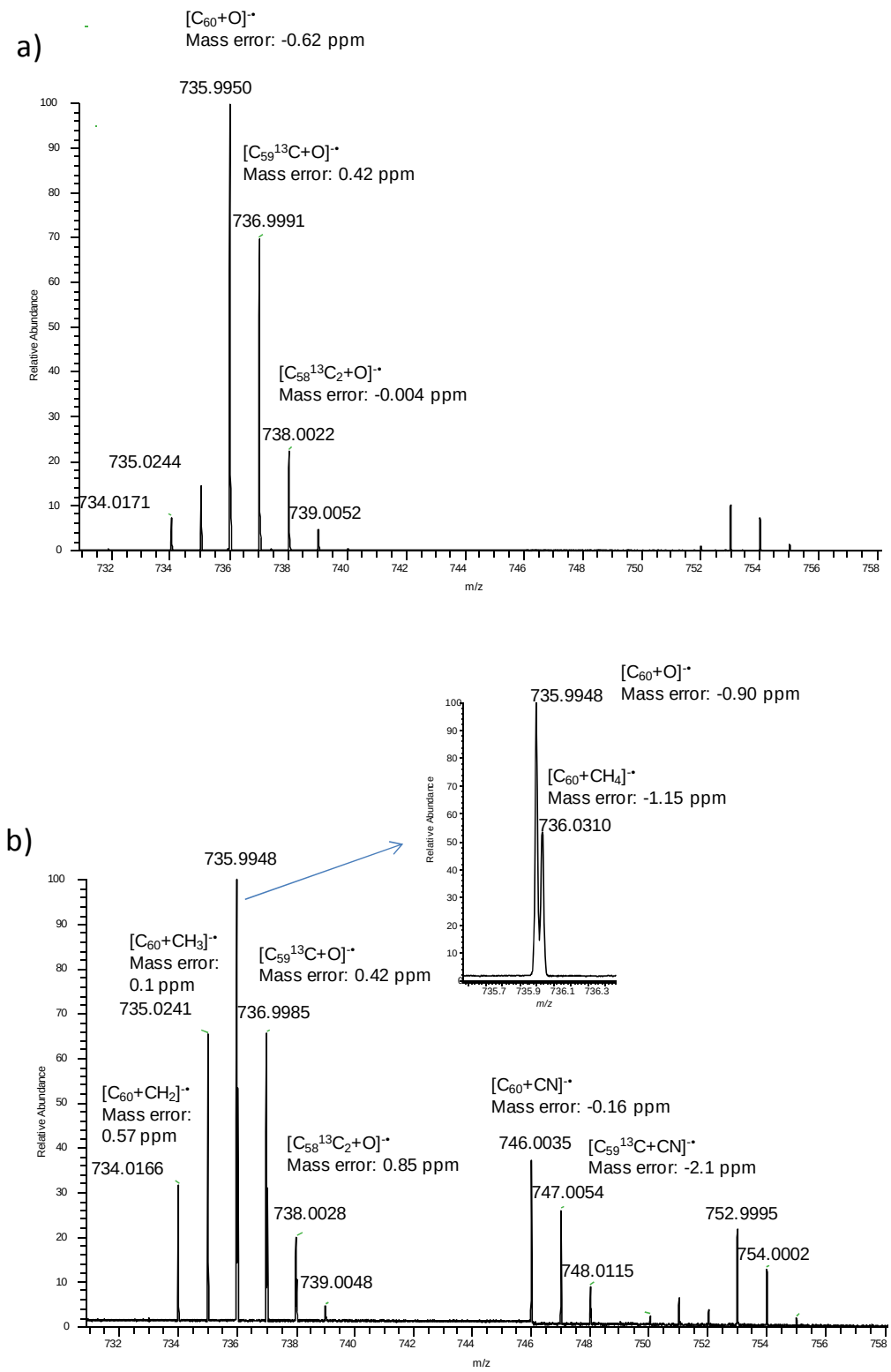

Figure 2S: Orbitrap Full scan MS spectra in negative mode of the cluster ion M+16 of fullerene C_{60} A) using 100% toluene, and B) using toluene:acetonitrile (1:1 *v/v*).

Table 1S. Instrumental limits of detection.

Compound	ILODs (ng/L)								Transitions
	SIM		H-SIM		SRM		H-SRM		(H-SRM)
	Standard	Matrix	Standard	Matrix	Standard	Matrix	Standard	Matrix	
C_{60}	11	20	0.5	0.7	10	15	0.5	0.8	720.00 > 720.00 721.00 > 721.00
C_{70}	11	20	0.5	0.8	10	15	0.5	0.8	840.00 > 840.00 841.00 > 841.00
C_{76}	1000	1500	500	600	950	1150	500	550	912.00 > 912.00 913.00 > 913.00
C_{78}	150	300	60	140	150	200	50	100	936.00 > 936.00 937.00 > 937.00
C_{84}	900	1200	650	800	850	1100	600	750	1008.00 > 1008.00 1009.00 > 1009.00

SIM: Q1 at 0.7 *m/z* FWHM; H-SIM: Q1 at 0.06 *m/z* FWHM
SRM: Q1 and Q3 at 0.7 *m/z* FWHM; H-SRM: Q1 at 0.7 *m/z* and Q3 at 0.06 *m/z* FWHM