

Full text, reference 8.

Frisch, M. J.; Trucks, G. W.; Schlegel, H. B.; Scuseria, G. E.; Robb, M. A.; Cheeseman, J. R.; Montgomery, J., J. A.; Vreven, T.; Kudin, K. N.; Burant, J. C.; Millam, J. M.; Iyengar, S. S.; Tomasi, J.; Barone, V.; Mennucci, B.; Cossi, M.; Scalmani, G.; Rega, N.; Petersson, G. A.; Nakatsuji, H.; Hada, M.; Ehara, M.; Toyota, K.; Fukuda, R.; Hasegawa, J.; Ishida, M.; Nakajima, T.; Honda, Y.; Kitao, O.; Nakai, H.; Klene, M.; Li, X.; Knox, J. E.; Hratchian, H. P.; Cross, J. B.; Bakken, V.; Adamo, C.; Jaramillo, J.; Gomperts, R.; Stratmann, R. E.; Yazyev, O.; Austin, A. J.; Cammi, R.; Pomelli, C.; Ochterski, J. W.; Ayala, P. Y.; Morokuma, K.; Voth, G. A.; Salvador, P.; Dannenberg, J. J.; Zakrzewski, V. G.; Dapprich, S.; Daniels, A. D.; Strain, M. C.; Farkas, O.; Malick, D. K.; Rabuck, A. D.; Raghavachari, K.; Foresman, J. B.; Ortiz, J. V.; Cui, Q.; Baboul, A. G.; Clifford, S.; Cioslowski, J.; Stefanov, B. B.; Liu, G.; Liashenko, A.; Piskorz, P.; Komaromi, I.; Martin, R. L.; Fox, D. J.; Keith, T.; Al-Laham, M. A.; Peng, C. Y.; Nanayakkara, A.; Challacombe, M.; Gill, P. M. W.; Johnson, B.; Chen, W.; Wong, M. W.; Gonzalez, C.; and Pople, J. A.; Gaussian 03, Gaussian, Inc., Wallingford CT, 2004.

Additional Reactions with CH₃Cl

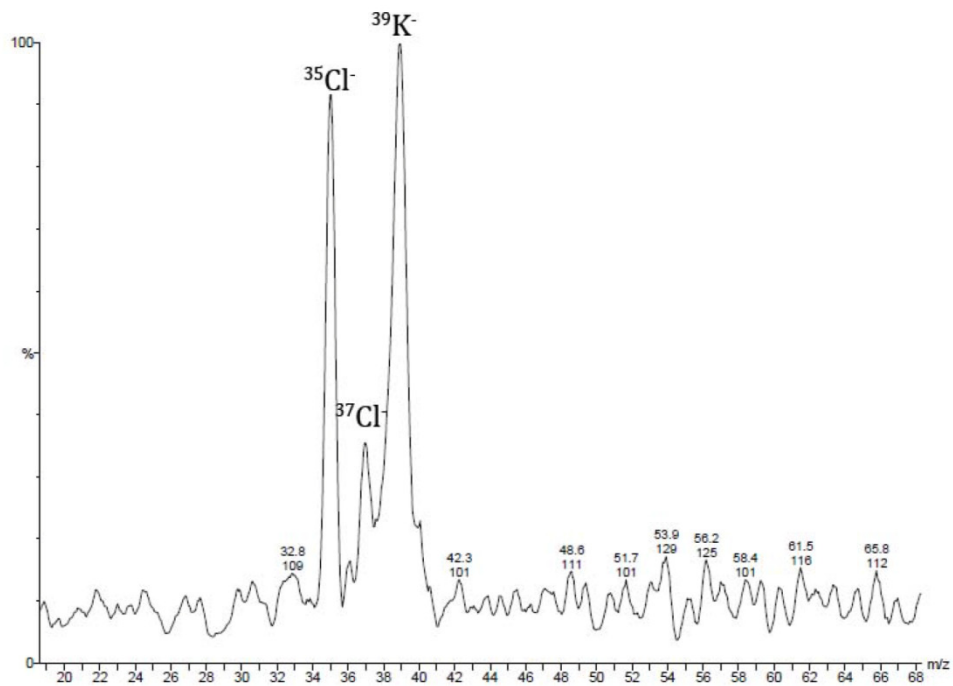


Figure 13: The mass spectrum of source-generated potassium anions colliding with methyl chloride gas (1.1×10^{-3} mbar), 50:0:50. File Name: METHYLCHLORIDEPOTASSIUMCHECK1 (24.180)

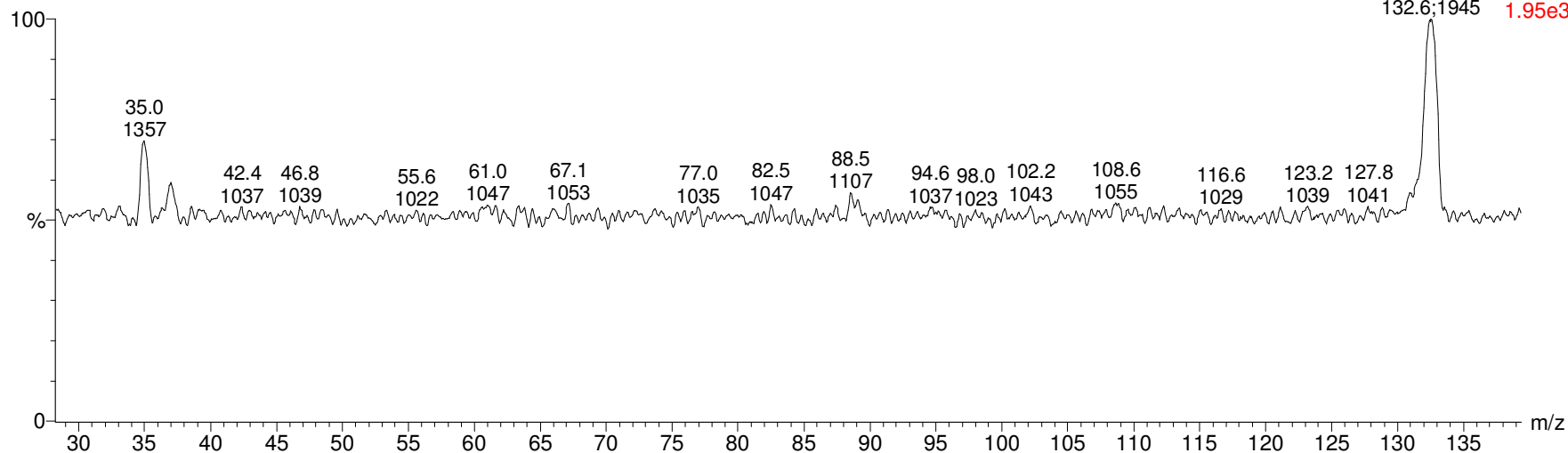
caesium anion in MeOH transmit to methylchloride.

12:28:04

30-Nov-2010

CSMETHYLCHLORIDE1 18 (1.300) Sm (Mn, 2x0.75); Cm (11:30)

Daughters of 133ES-
132.6;1945 1.95e3



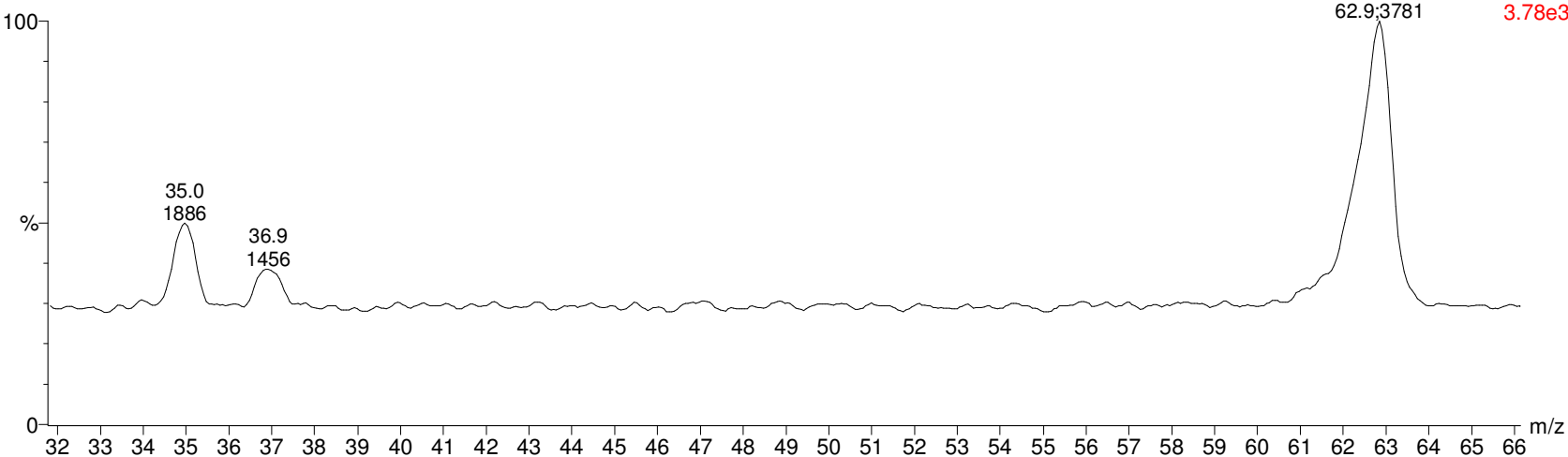
coper anion in MeOH transmit to methylchloride.

12:02:56

30-Nov-2010

COPPERMETHLCHLORIDE1 31 (2.221) Sm (Mn, 2x0.75); Cm (26:46)

Daughters of 63ES-
62.9;3781 3.78e3



Additional Reactions with CH₃CH₂Cl

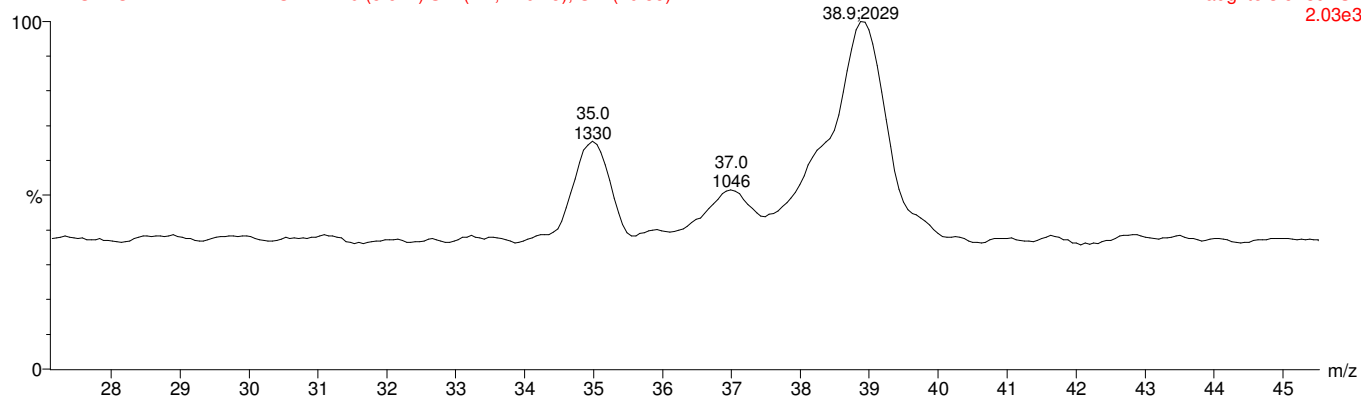
potassium and ethyl chloride

13:58:57

20-Oct-2010

KETHYLCHLORIDEAPPEARANCEEN 79 (5.621) Sm (Mn, 2x0.75); Cm (70:86)

Daughters of 39ES-
2.03e3



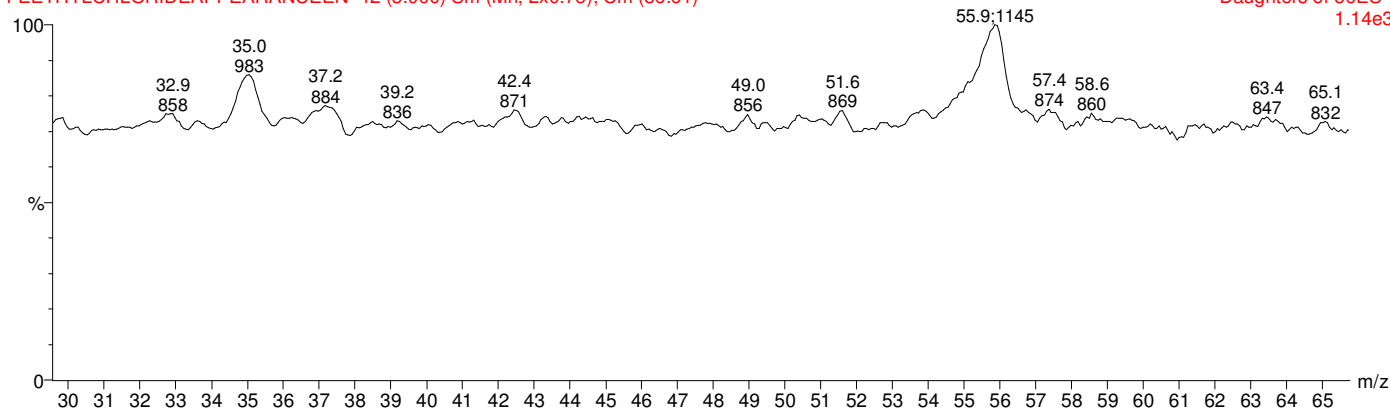
iron (from Mn) and ethyl chloride

14:30:55

20-Oct-2010

FEETHYLCHLORIDEAPPEARANCEEN 42 (3.000) Sm (Mn, 2x0.75); Cm (36:61)

Daughters of 56ES-
1.14e3



Additional Reactions with CH₃Br

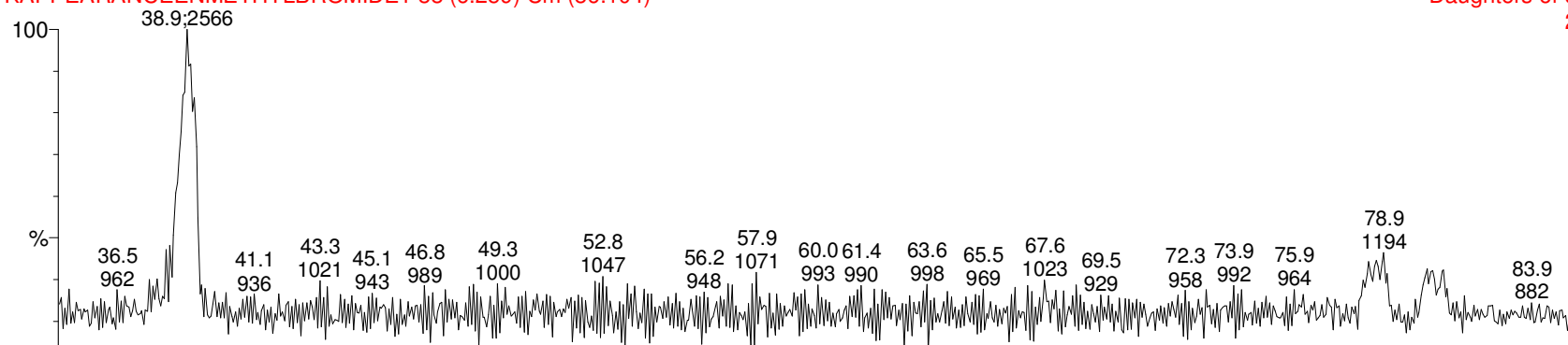
appearance energies for D methyl bromide pot

08:54:26

20-Oct-2010

KAPPEARANCEENMETHYLBROMIDE1 88 (6.259) Cm (86:104)

Daughters of 39ES-
2.57e3



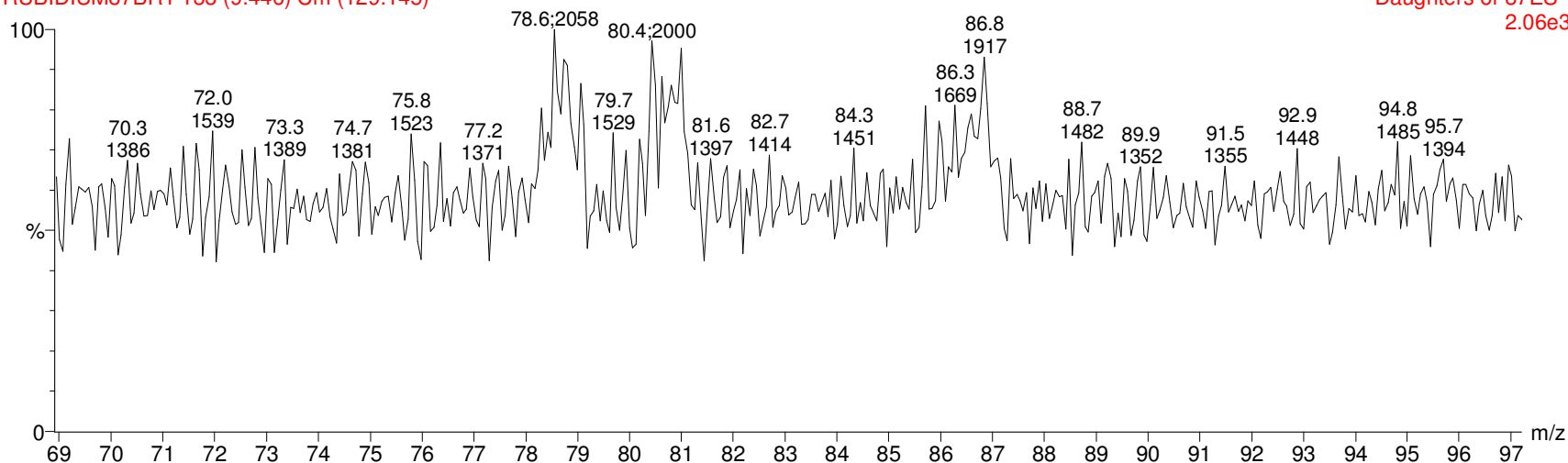
Rubidium 87 transmitted to CH3Br

11:02:38

08-Nov-2010

RUBIDIUM87BR1 133 (9.446) Cm (129:145)

Daughters of 87ES-
2.06e3



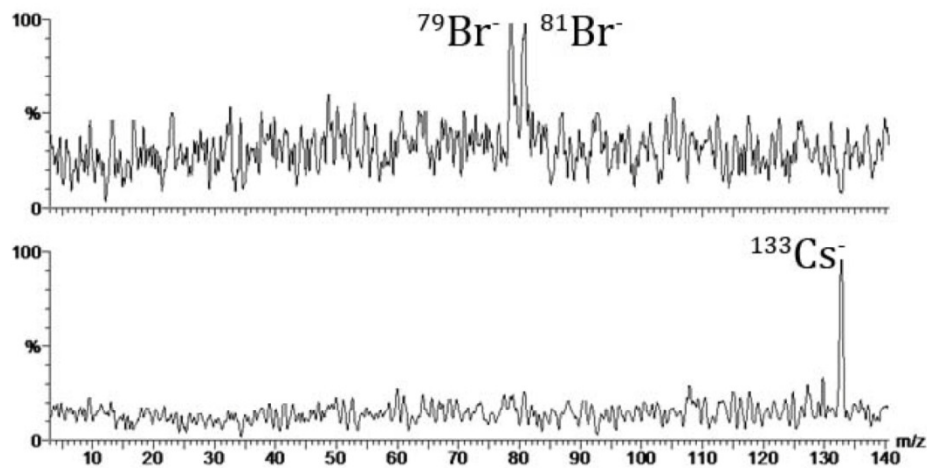


Figure 39: The mass spectrum of source-generated cesium anions colliding with methyl bromide gas (1.0×10^{-3} mbar); Upper spectrum 20:20:20. File Name: CAESIUMBR2 (17.946). Lower spectrum 50:0:50. File Name: CAESIUMBR2 (3.921).

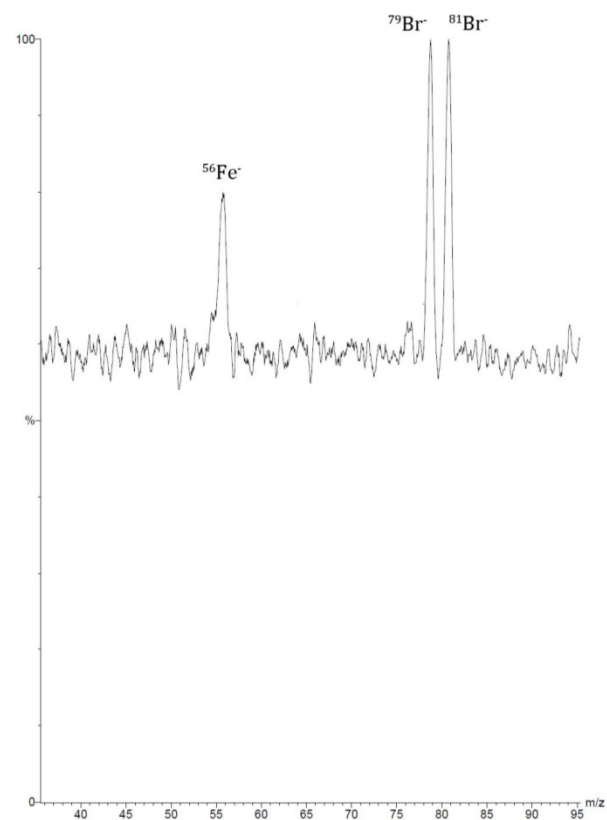


Figure 40: The mass spectrum of source-generated iron anions colliding with methyl bromide gas (1.0×10^{-3} mbar), 10:10:10. File Name: IRONMETHYLBROMIDE1 (5.904).

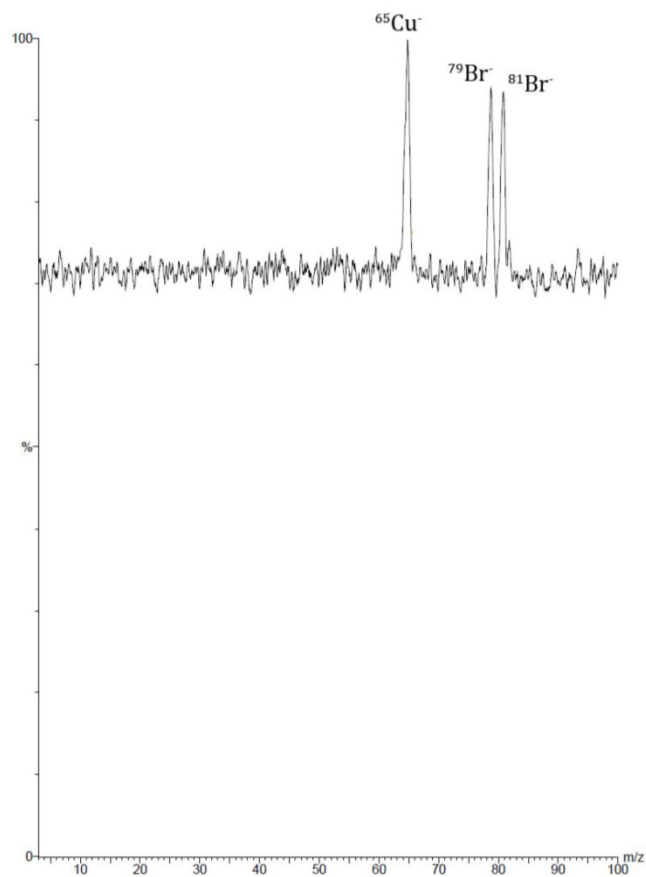


Figure 41: The mass spectrum of source-generated copper anions colliding with methyl bromide gas (1.0×10^{-3} mbar), 50:0:50. File Name: COPPERMETHYLBROMIDEAPPEARANCEEN65 (6.613).

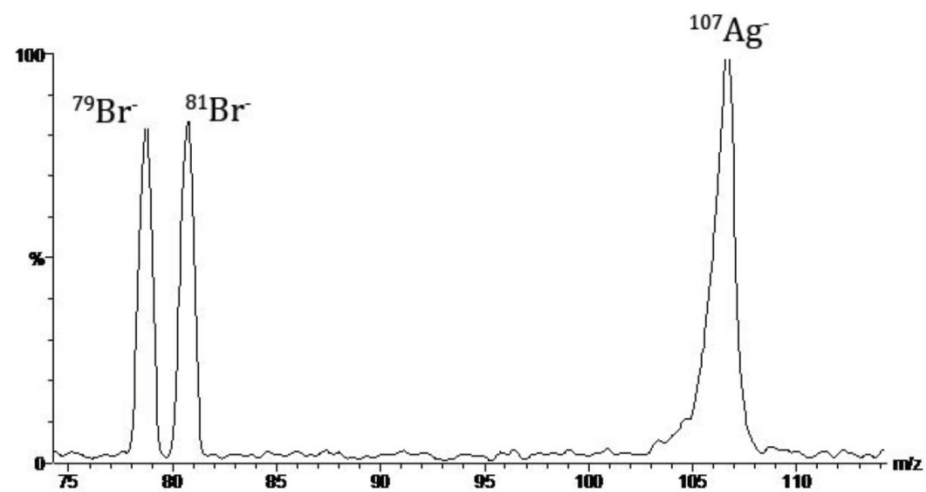
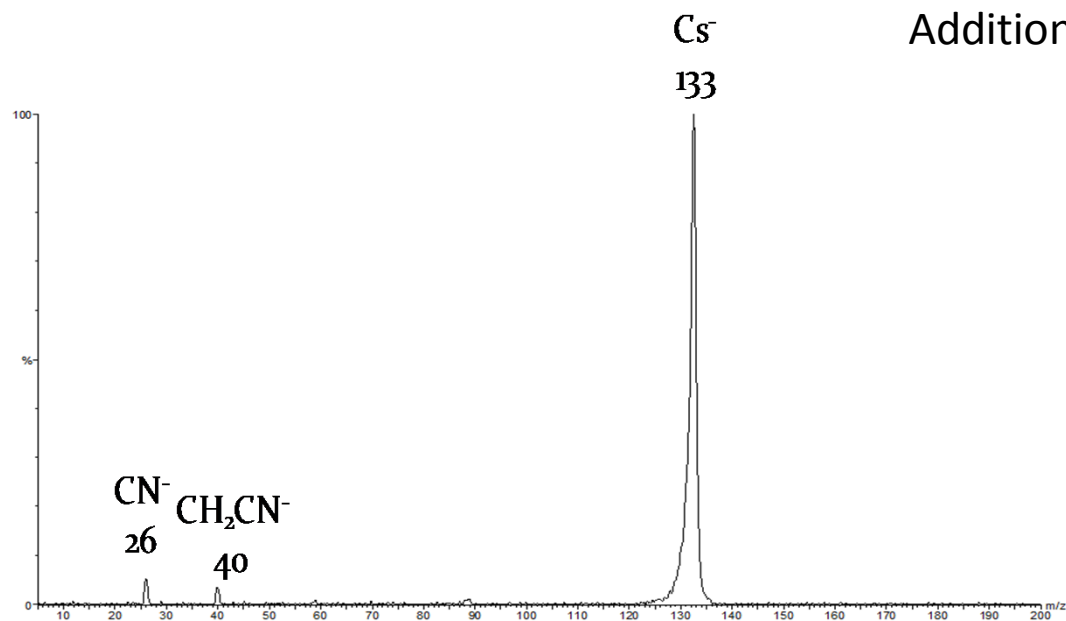
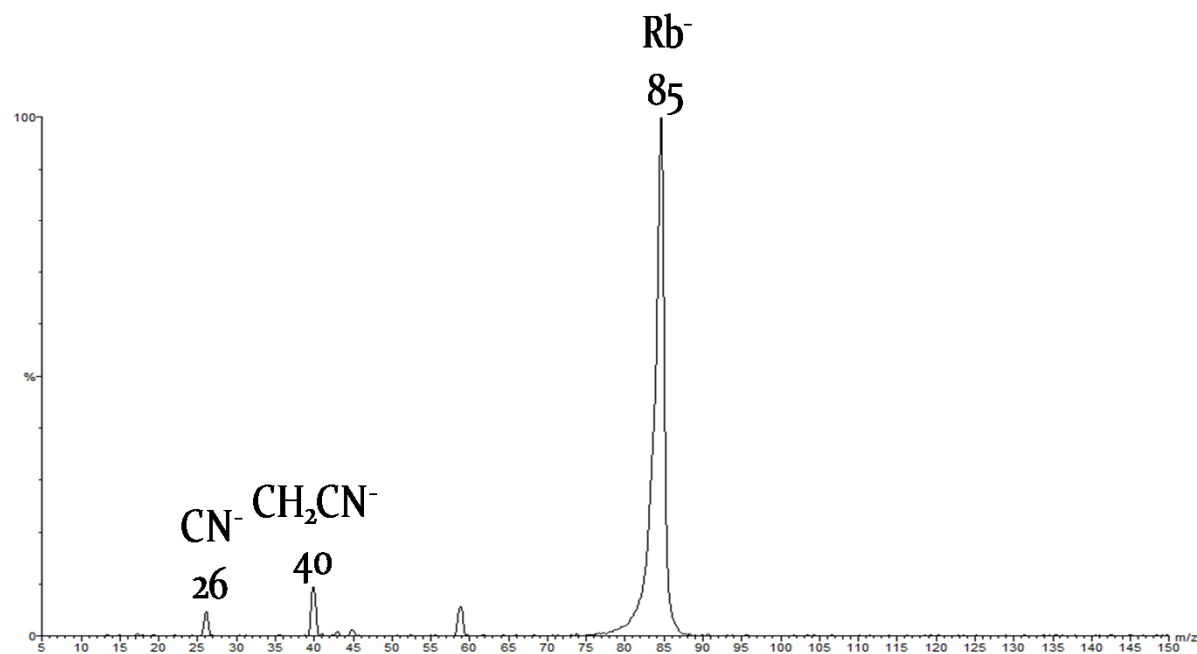


Figure 42: The mass spectrum of source-generated silver anions colliding with methyl bromide gas (1.0×10^{-3} mbar), 30:30:30. File Name: SILVERMETHYLBROMIDE1 (12.563).

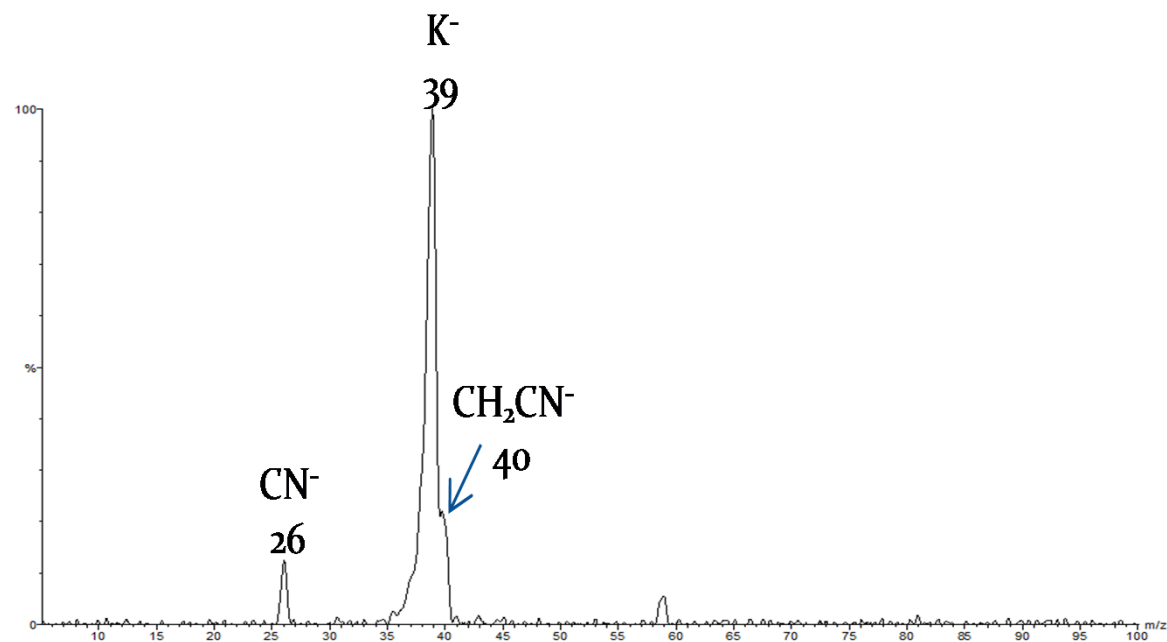
Additional reactions with CH₃CN



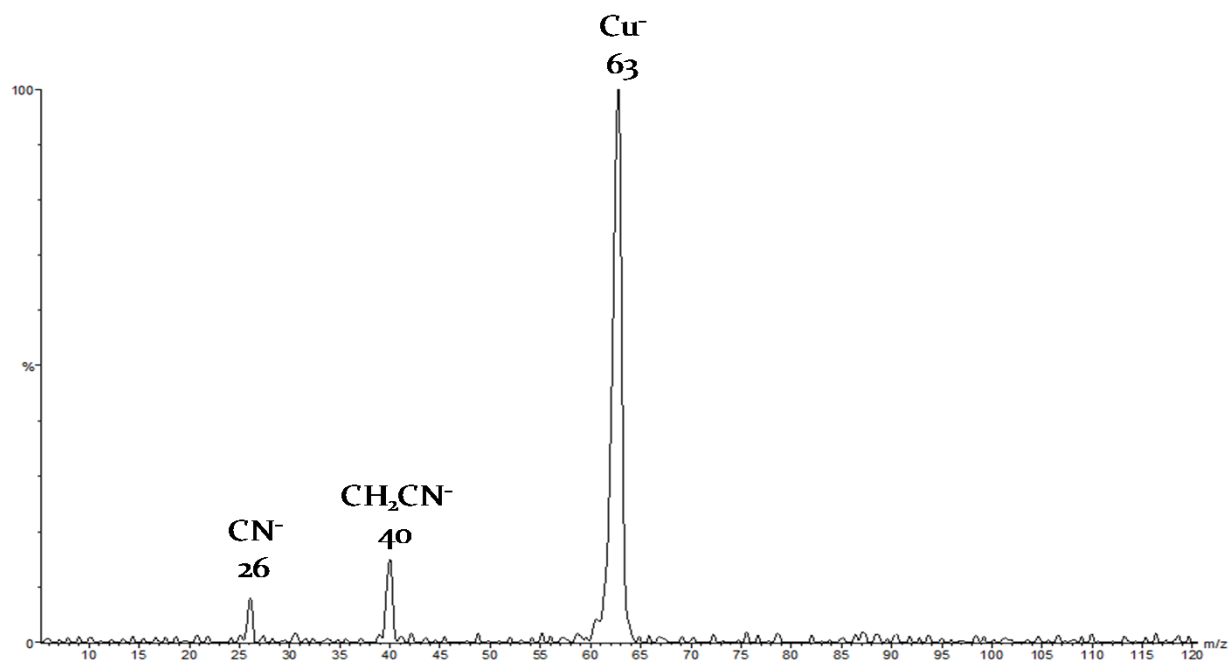
10:40:10



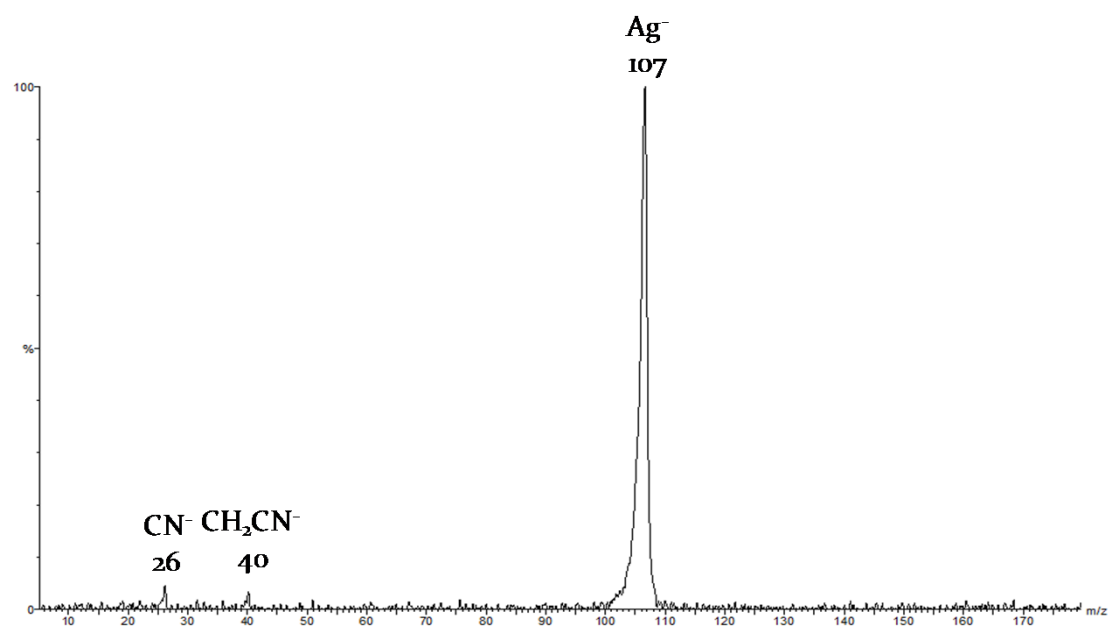
10:35:10



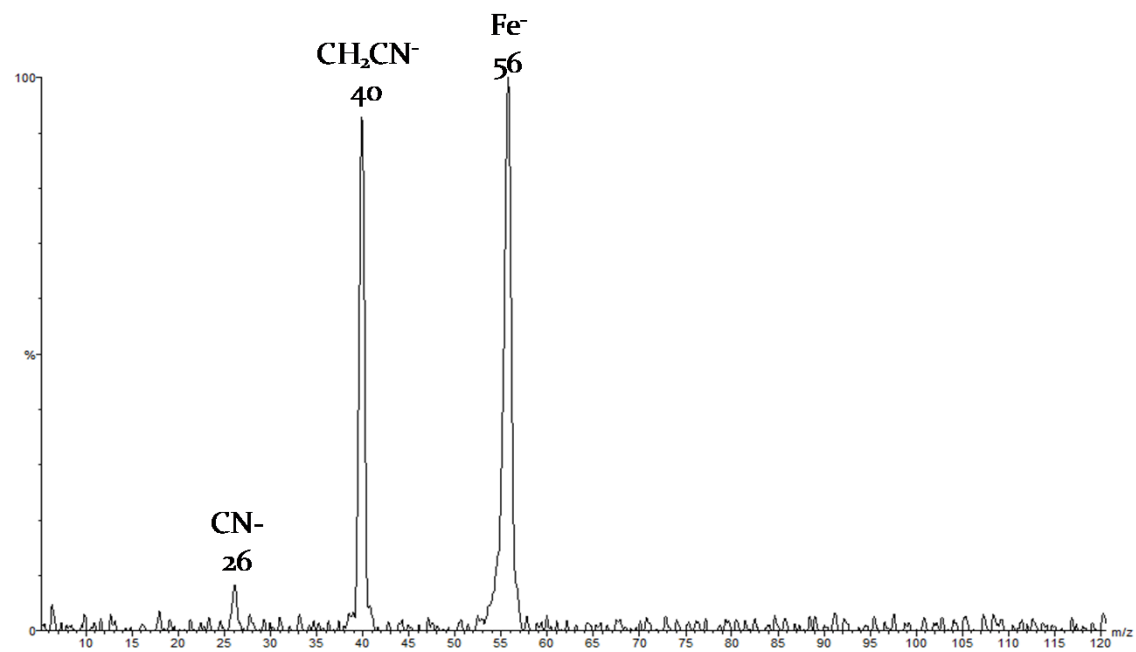
10:20:10



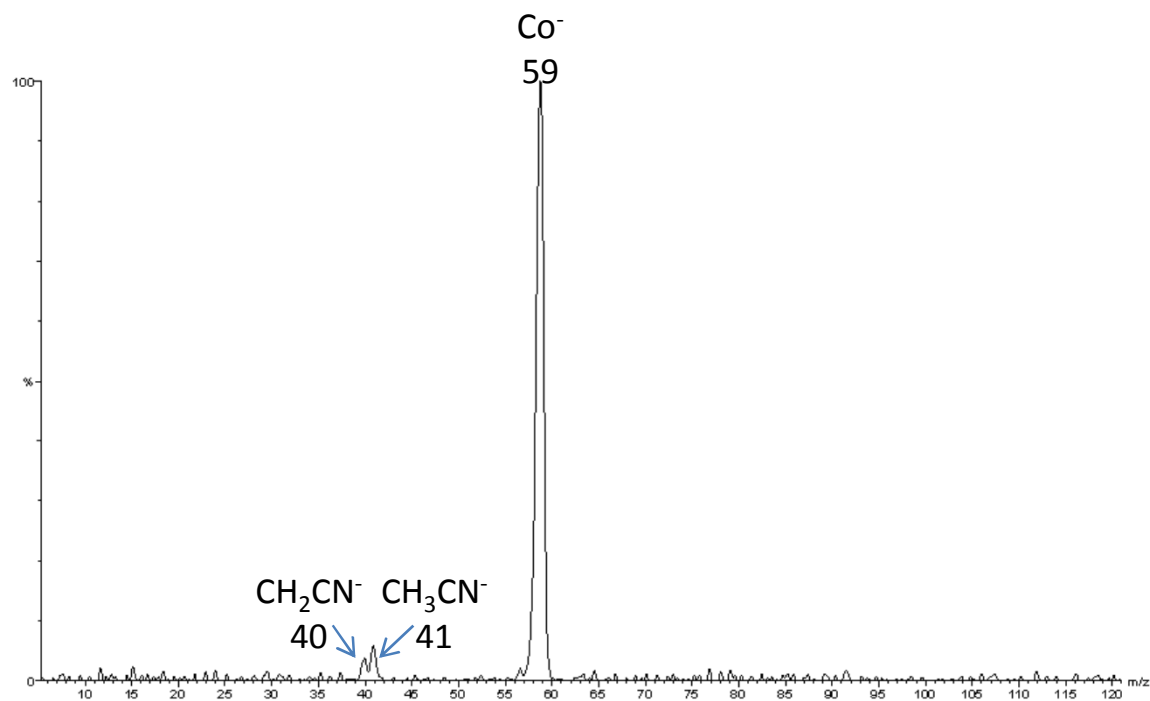
10:20:10



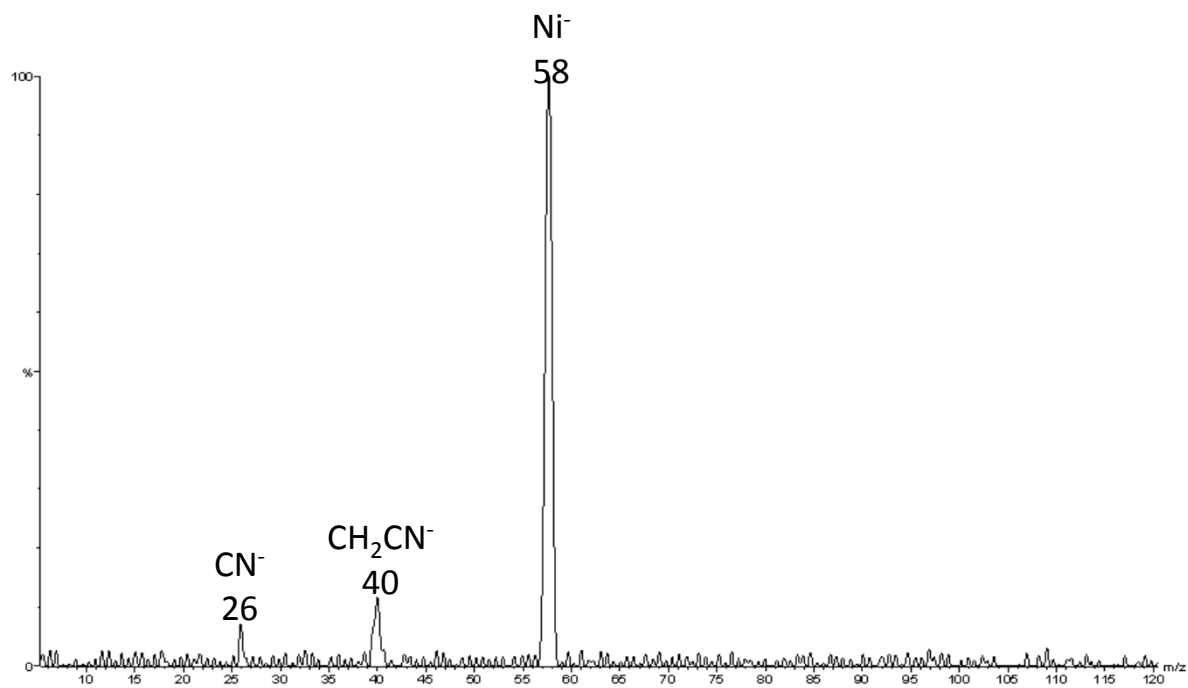
10:40:10



10:20:10



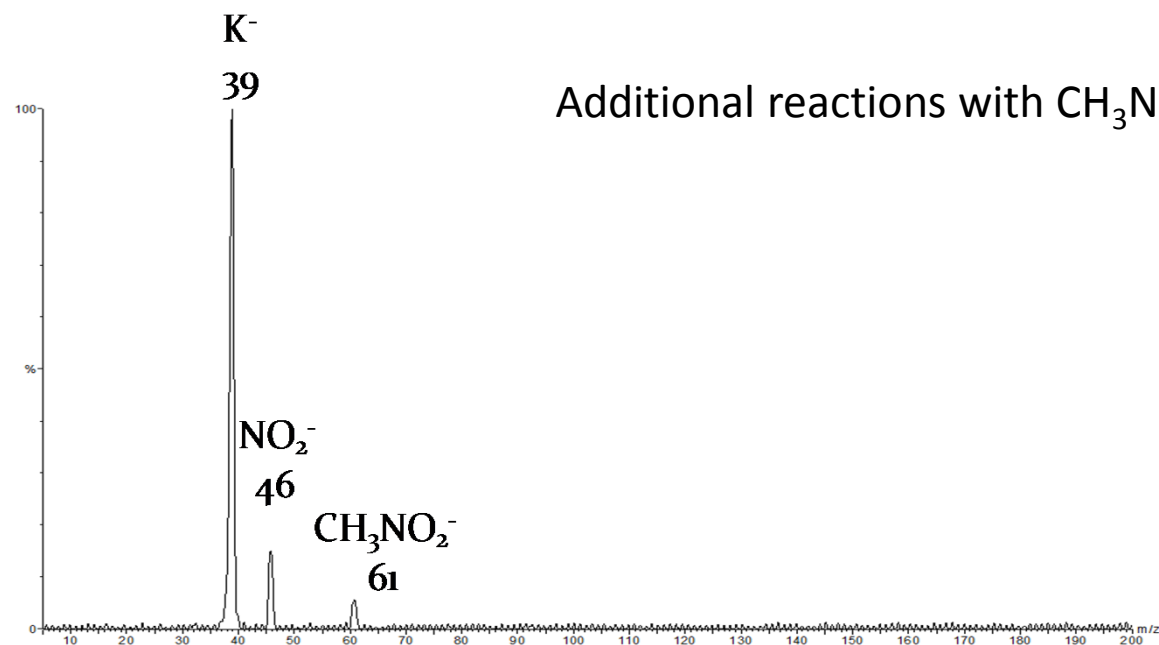
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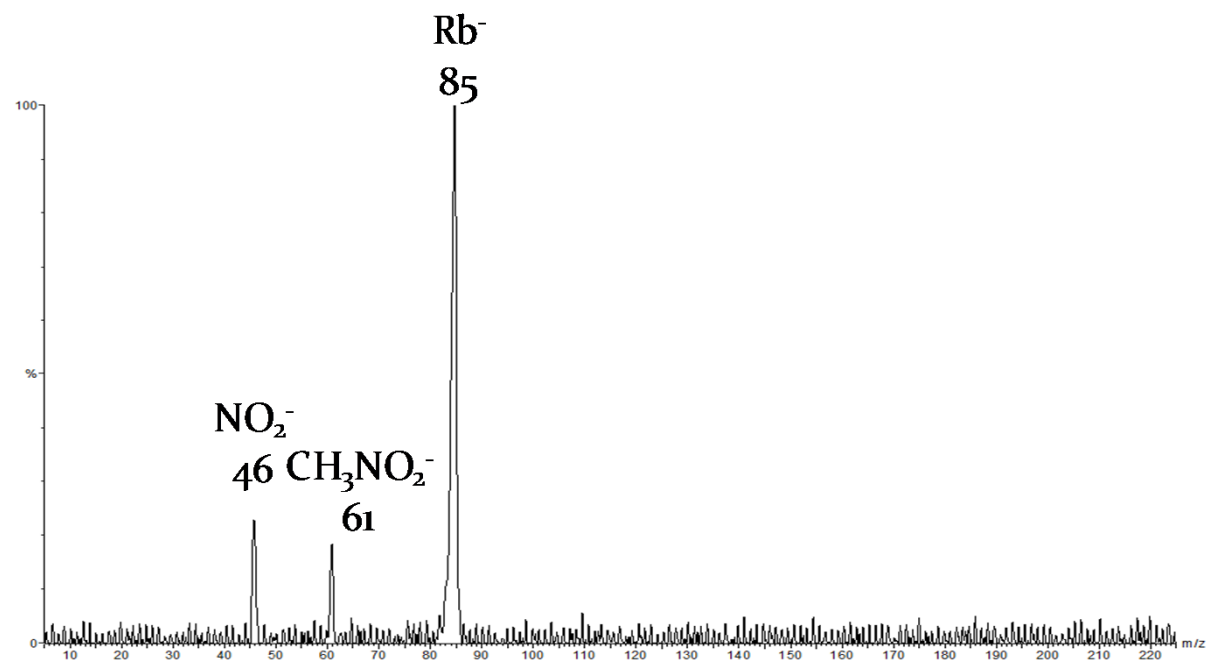
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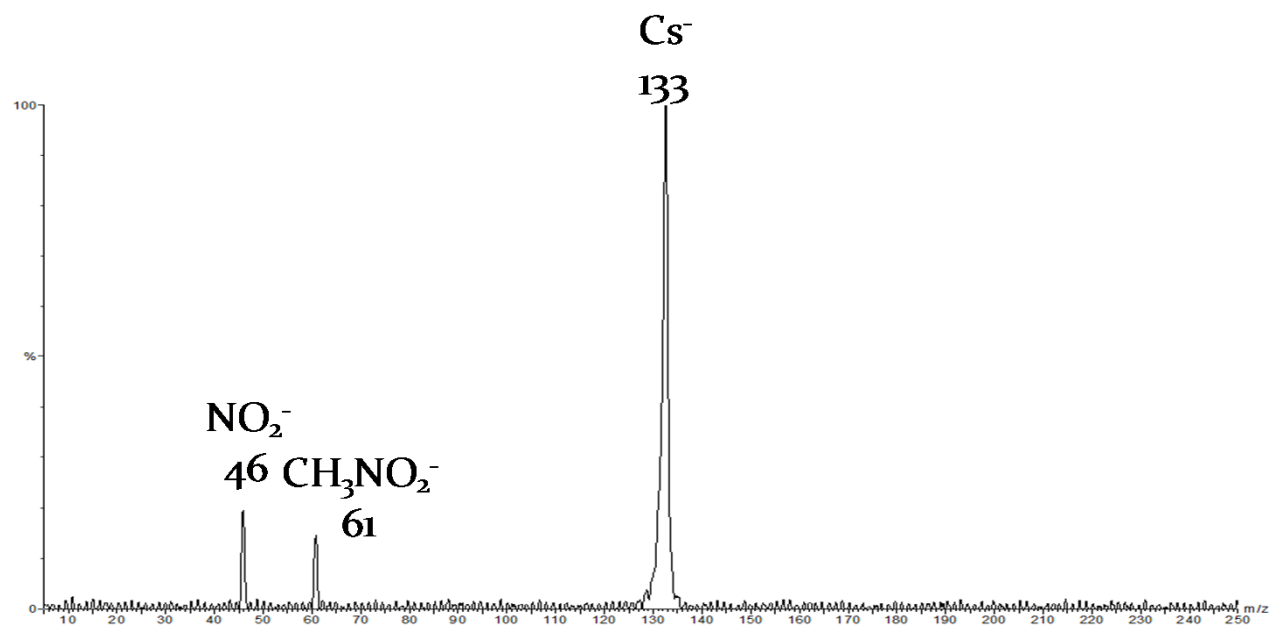
Additional reactions with CH_3NO_2

10:10:10

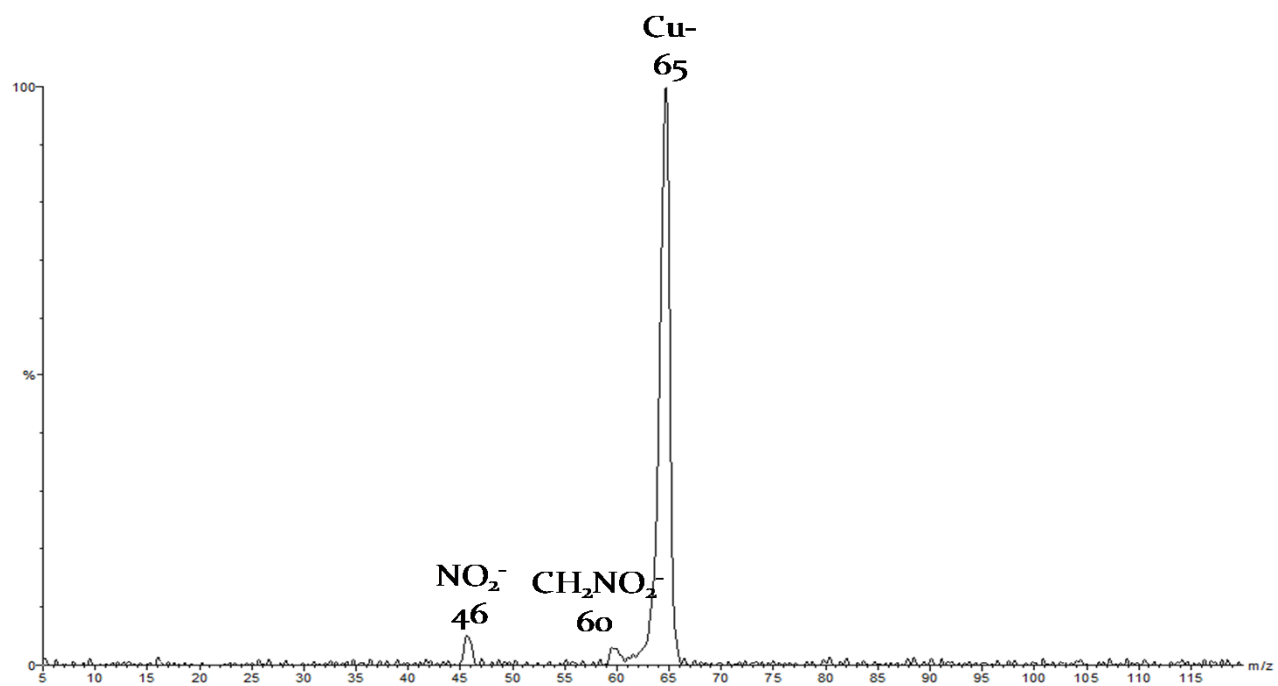


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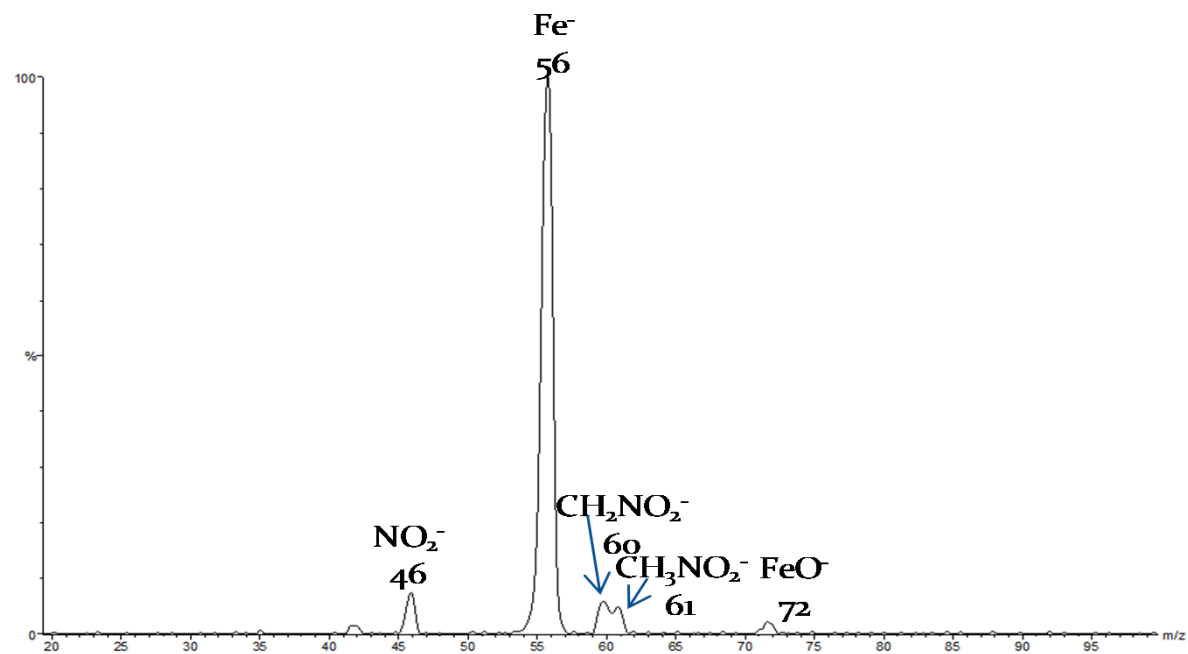




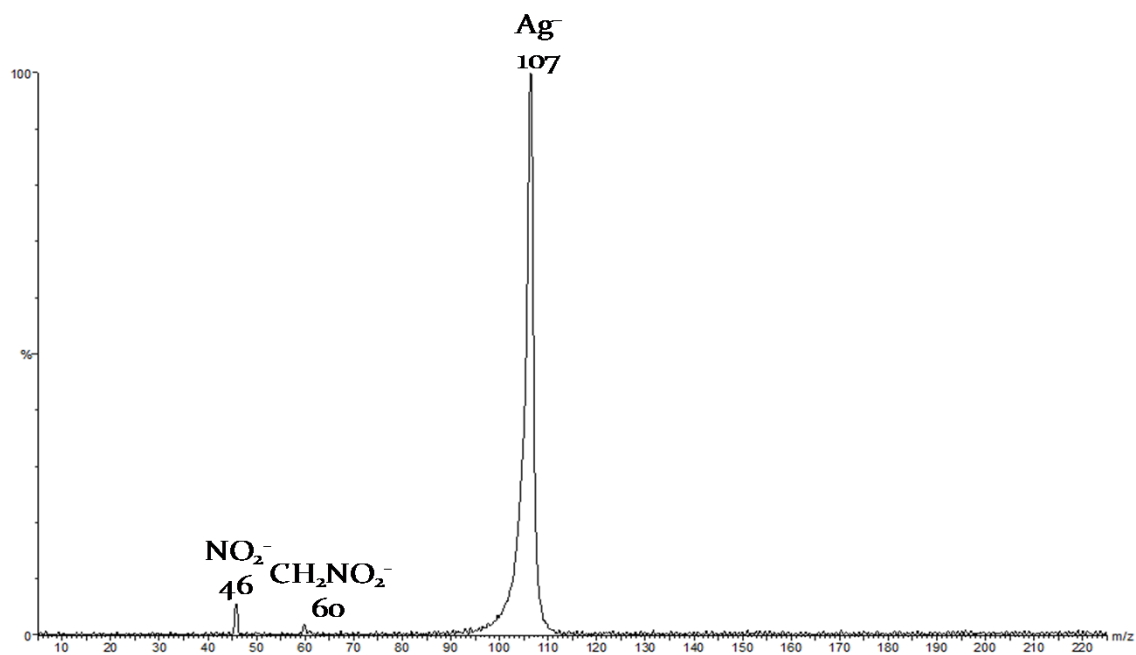
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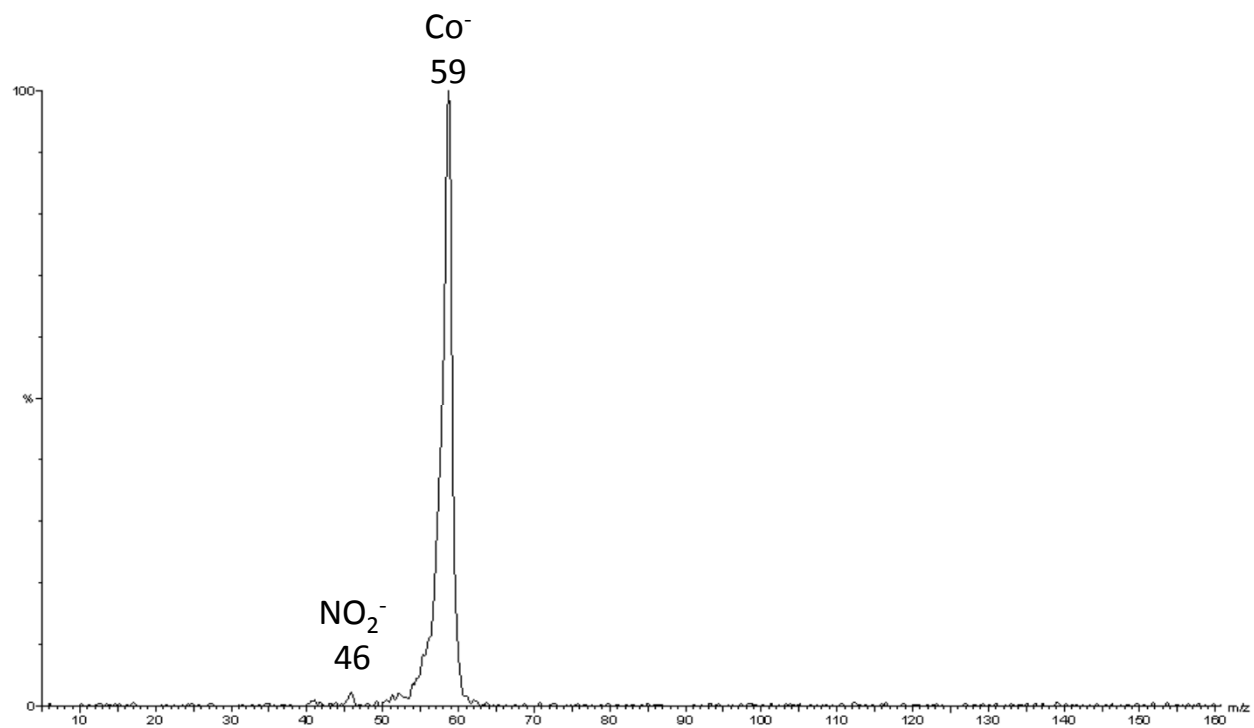
10:20:10



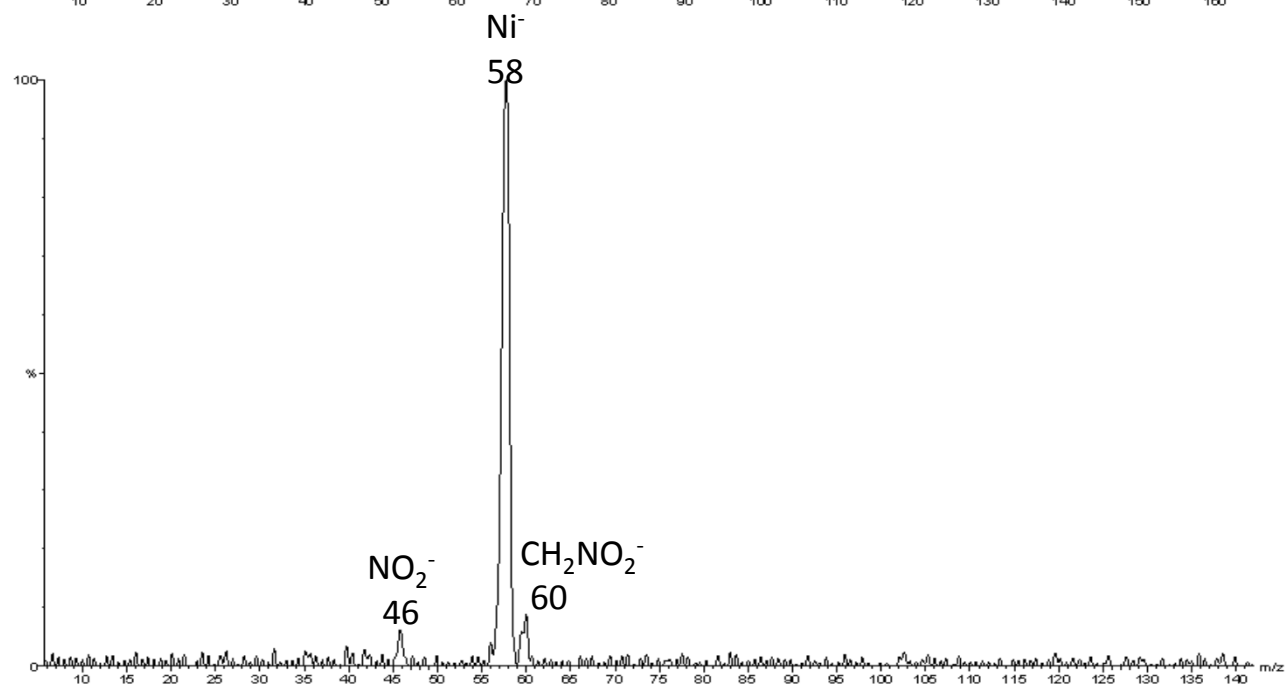
10:10:10



10:25:10



10:35:10



10:10:10