

# WEB350

*Benjamin Weigel*

*10/01/2015*

## Contents

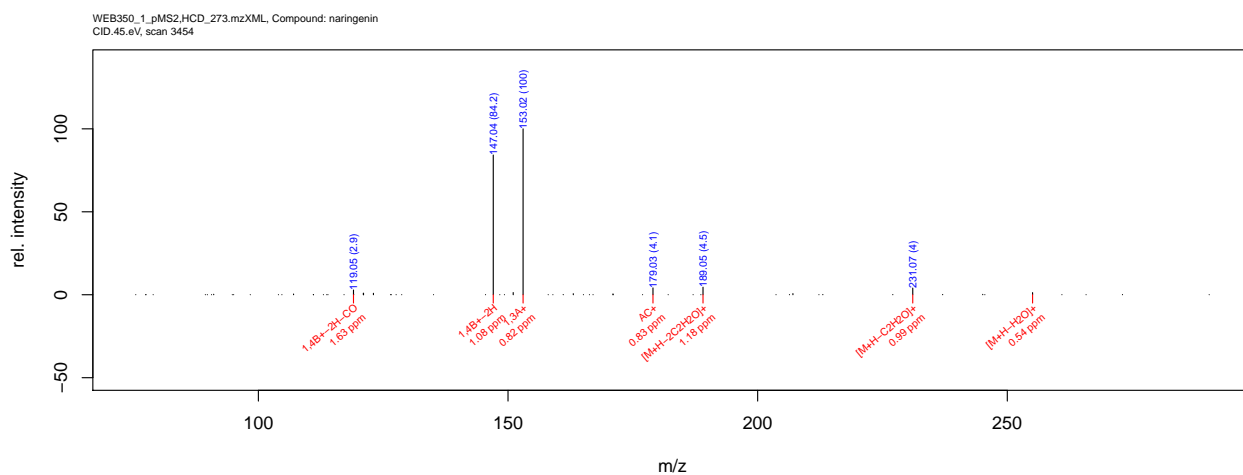
<b>Automatic annotation of MS spectra</b>	<b>3</b>
naringenin.CID.45eV	3
naringenin.HCD.75eV	4
naringenin.HCD.100eV	5
eriodictyol.CID.45eV	6
eriodictyol.HCD.75eV	7
eriodictyol.HCD.100eV	8
hesperetin.CID.45eV	9
hesperetin.HCD.75eV	10
hesperetin.HCD.100eV	11
homoeriodictyol.CID.45eV	12
homoeriodictyol.HCD.75eV	13
homoeriodictyol.HCD.100eV	14
apigenin.CID.45eV	15
apigenin.HCD.75eV	16
apigenin.HCD.100eV	17
luteolin.CID.45eV	18
luteolin.HCD.75eV	19
luteolin.HCD.100eV	20
diosmetin.CID.45eV	21
diosmetin.HCD.75eV	22
diosmetin.HCD.100eV	23
chrysoeriol.CID.45eV	24
chrysoeriol.HCD.75eV	25
chrysoeriol.HCD.100eV	26
kaempferol.CID.45eV	27
kaempferol.HCD.75eV	28
kaempferol.HCD.100eV	29
quercetin.CID.45eV	30
quercetin.HCD.75eV	31
quercetin.HCD.100eV	32
myricetin.CID.45eV	33
myricetin.HCD.75eV	34
myricetin.HCD.100eV	35
ponciretin.CID.45eV	36
ponciretin.HCD.75eV	37
ponciretin.HCD.100eV	38
acacetin.CID.45eV	39
acacetin.HCD.75eV	40
acacetin.HCD.100eV	41
isorhamnetin.CID.45eV	42
isorhamnetin.HCD.75eV	43
isorhamnetin.HCD.100eV	44
kaempferide.CID.45eV	45

kaempferide.HCD.75eV . . . . .	46
kaempferide.HCD.100eV . . . . .	47

	substance	fragment	formula	MW	mz
1	naringenin	1,4B+-2H			147.04
2	naringenin	1,4B+-2H-2CO			91.05
3	naringenin	1,4B+-2H-CO			119.05
4	naringenin	AC+			179.03
5	naringenin	[M+H]+	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.07	273.08
6	naringenin	[M+H-2C <sub>2</sub> H <sub>2</sub> O]+	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.07	189.06

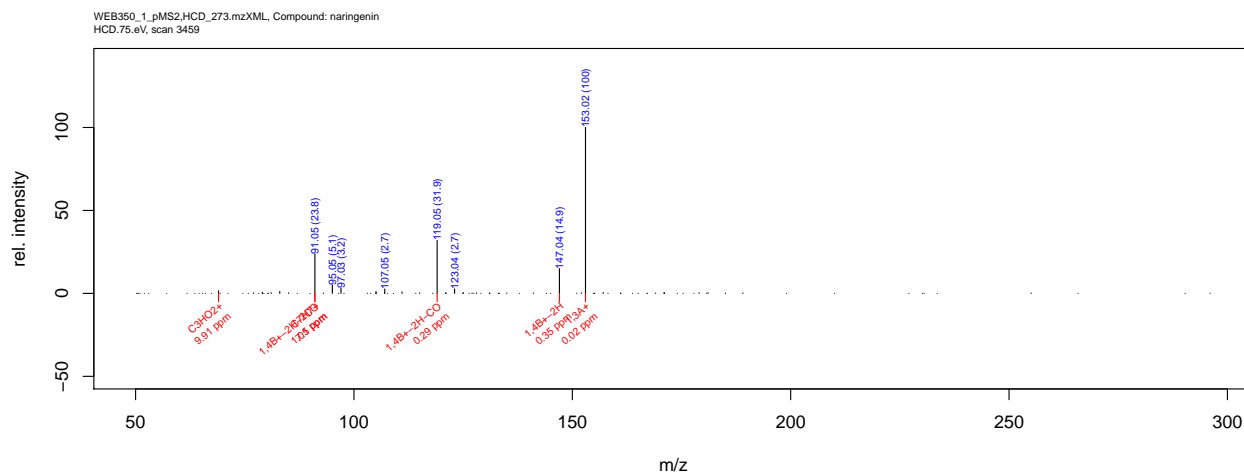
## Automatic annotation of MS spectra

### naringenin.CID.45eV



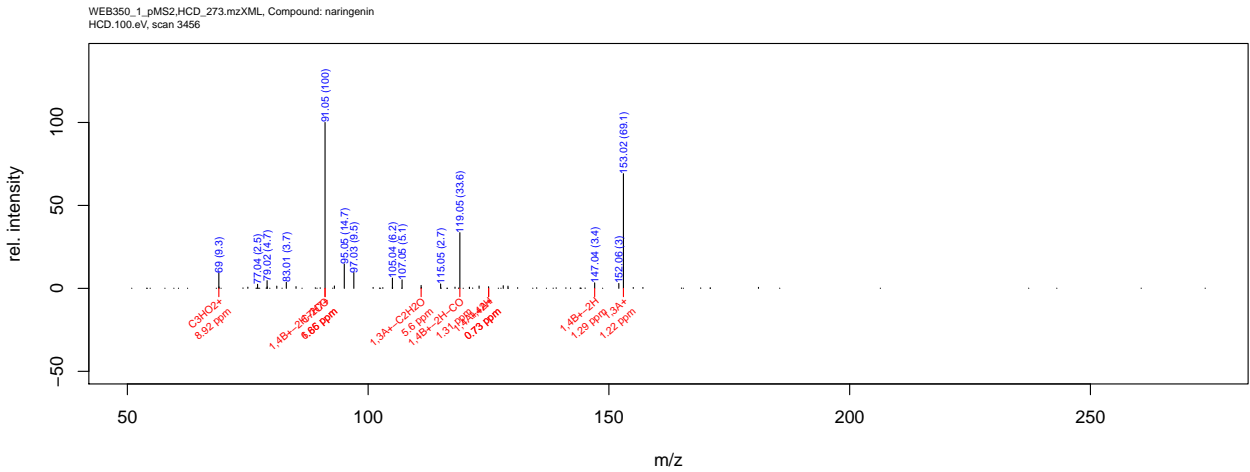
	mz	int	ppm	fragment
1	119.05	2.9	1.63	1,4B+-2H-CO
2	147.04	84.2	1.08	1,4B+-2H
3	153.02	100.0	0.82	1,3A+
4	179.03	4.1	0.83	AC+
5	189.05	4.5	1.18	[M+H-2C <sub>2</sub> H <sub>2</sub> O]+
6	231.07	4.0	0.99	[M+H-C <sub>2</sub> H <sub>2</sub> O]+
7	255.07	1.3	0.54	[M+H-H <sub>2</sub> O]+

# naringenin.HCD.75eV



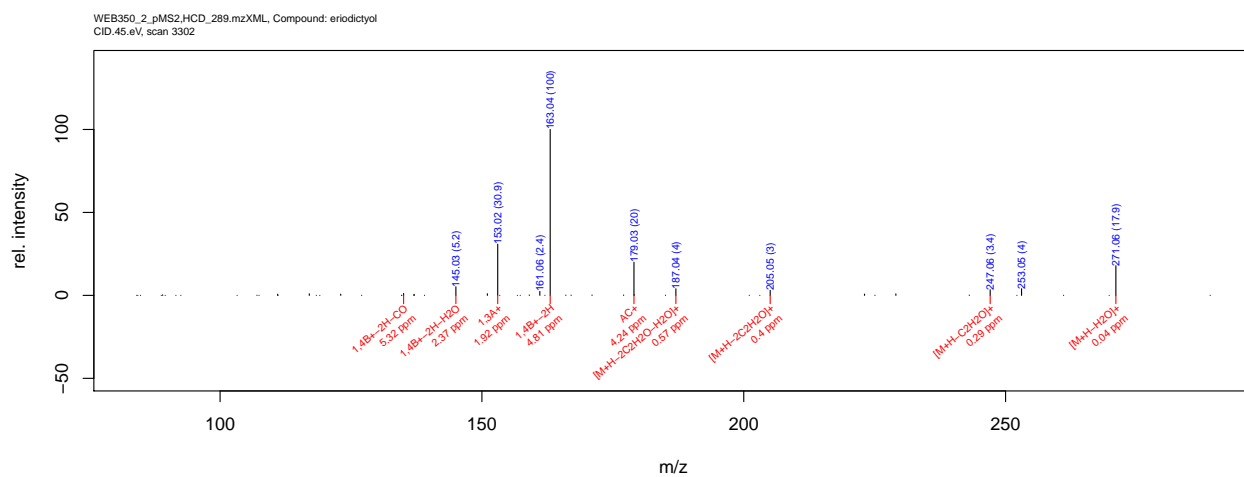
	mz	int	ppm	fragment
1	69.00	1.5	9.91	C3HO2+
2	91.05	23.8	1.01	1,4B+-2H-2CO
3	91.05	23.8	7.50	C7H7+
4	119.05	31.9	0.29	1,4B+-2H-CO
5	147.04	14.9	0.35	1,4B+-2H
6	153.02	100.0	0.02	1,3A+

naringenin.HCD.100eV



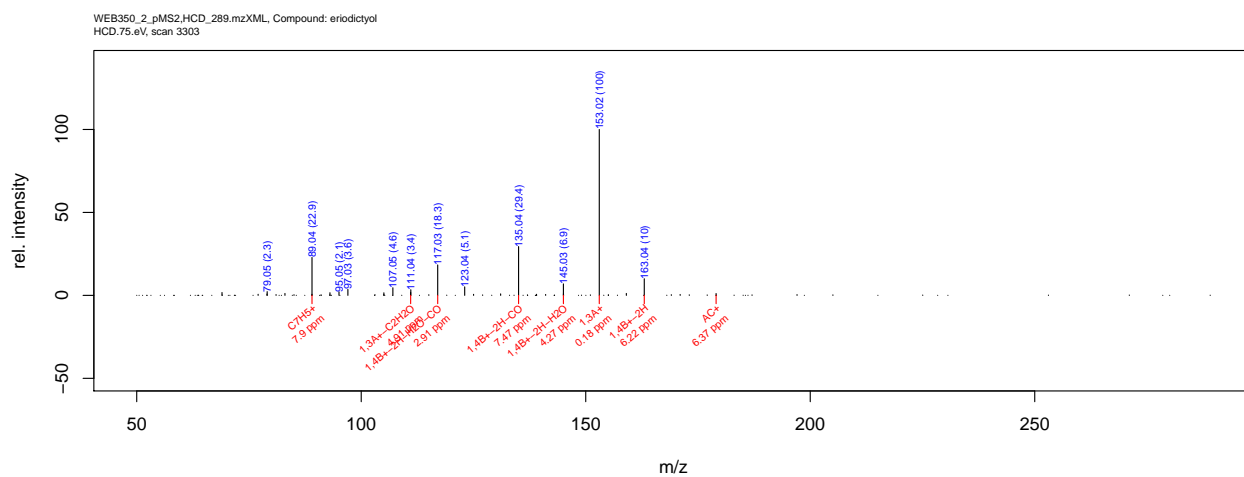
	mz	int	ppm	fragment
1	69.00	9.3	8.92	C3HO2+
2	91.05	100.0	1.85	1,4B+-2H-2CO
3	91.05	100.0	6.66	C7H7+
4	111.01	1.8	5.60	1,3A+-C2H2O
5	119.05	33.6	1.31	1,4B+-2H-CO
6	125.02	1.0	0.73	1,4A+
7	125.02	1.0	0.73	1,4A++2H
8	147.04	3.4	1.29	1,4B+-2H
9	153.02	69.1	1.22	1,3A+

# eriodictyol.CID.45eV



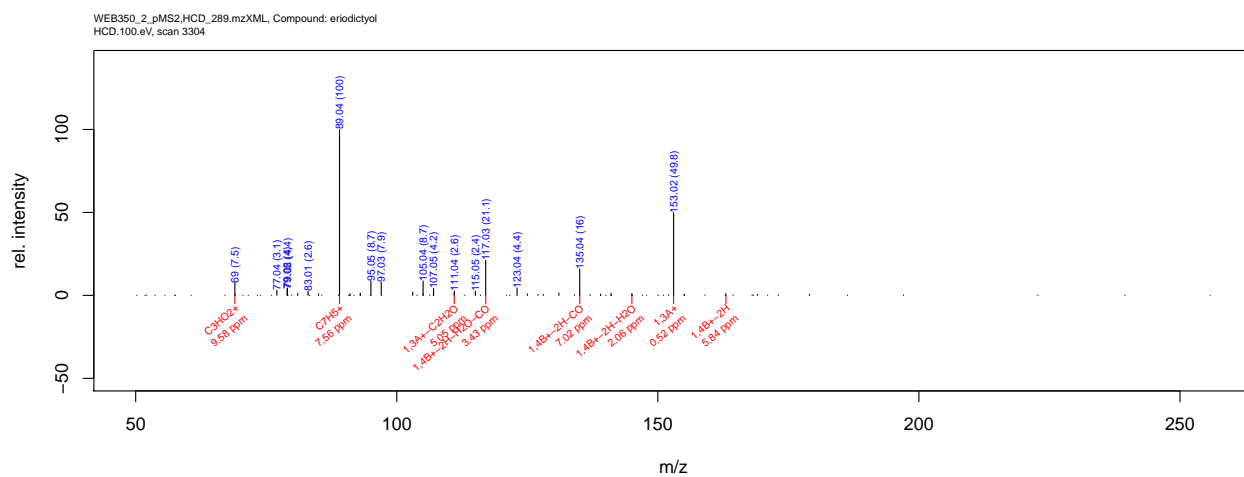
	mz	int	ppm	fragment
1	135.04	1.1	5.32	1,4B+-2H-CO
2	145.03	5.2	2.37	1,4B+-2H-H2O
3	153.02	30.9	1.92	1,3A+
4	163.04	100.0	4.81	1,4B+-2H
5	179.03	20.0	4.24	AC+
6	187.04	4.0	0.57	[M+H-2C2H2O-H2O]+
7	205.05	3.0	0.40	[M+H-2C2H2O]+
8	247.06	3.4	0.29	[M+H-C2H2O]+
9	271.06	17.9	0.04	[M+H-H2O]+

# eriodictyol.HCD.75eV



	mz	int	ppm	fragment
1	89.04	22.9	7.90	C7H5+
2	111.01	1.8	4.91	1,3A+-C2H2O
3	117.03	18.3	2.91	1,4B+-2H-H2O-CO
4	135.04	29.4	7.47	1,4B+-2H-CO
5	145.03	6.9	4.27	1,4B+-2H-H2O
6	153.02	100.0	0.18	1,3A+
7	163.04	10.0	6.22	1,4B+-2H
8	179.03	1.1	6.37	AC+

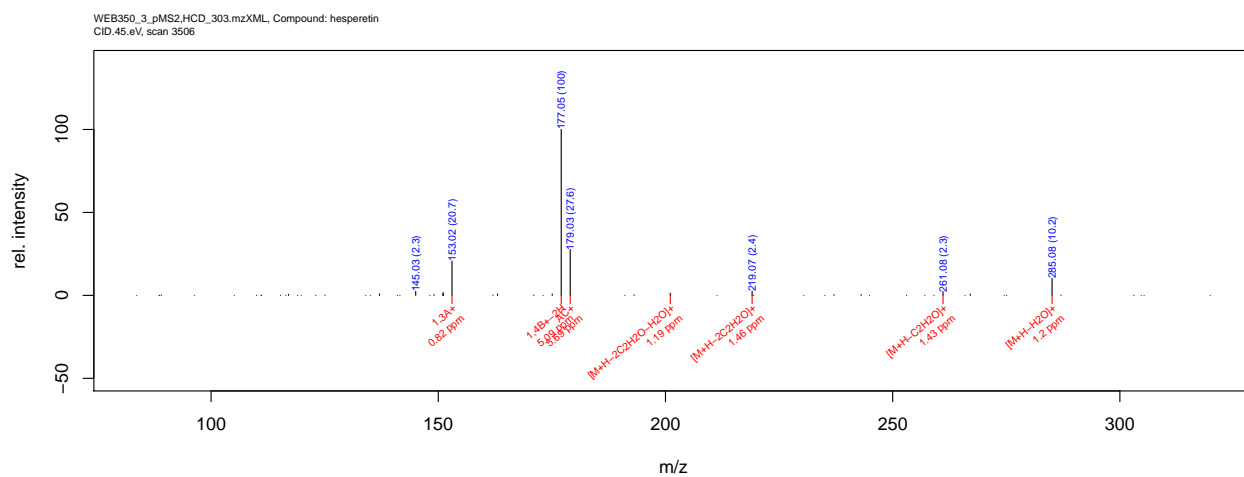
# eriodictyol.HCD.100eV



	mz	int	ppm	fragment
1	69.00	7.5	9.58	C3HO2+
2	89.04	100.0	7.56	C7H5+
3	111.01	1.9	5.05	1,3A+-C2H2O
4	117.03	21.1	3.43	1,4B+-2H-H2O-CO
5	135.04	16.0	7.02	1,4B+-2H-CO
6	145.03	1.0	2.06	1,4B+-2H-H2O
7	153.02	49.8	0.52	1,3A+
8	163.04	1.0	5.84	1,4B+-2H

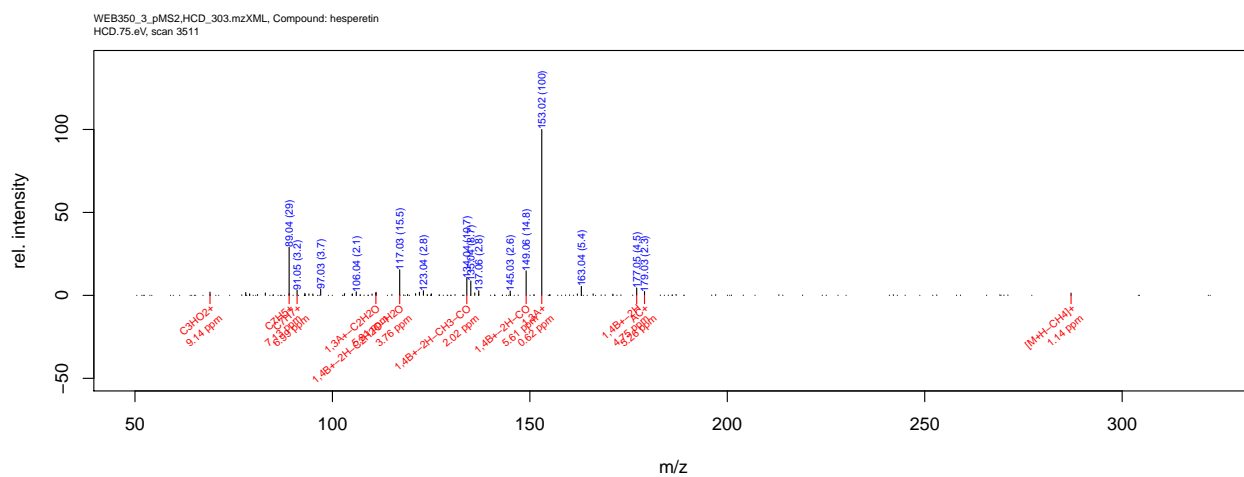


# hesperetin.CID.45eV



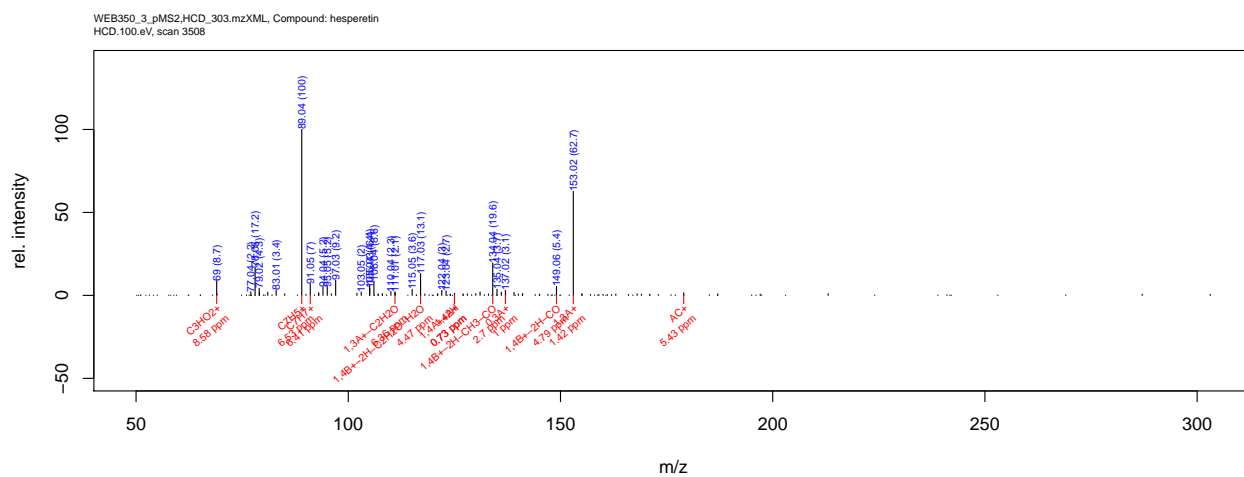
	mz	int	ppm	fragment
1	153.02	20.7	0.82	1,3A+
2	177.05	100.0	5.09	1,4B+-2H
3	179.03	27.6	5.69	AC+
4	201.05	1.3	1.19	[M+H-2C2H2O-H2O]+
5	219.07	2.4	1.46	[M+H-2C2H2O]+
6	261.08	2.3	1.43	[M+H-C2H2O]+
7	285.08	10.2	1.20	[M+H-H2O]+

# hesperetin.HCD.75eV



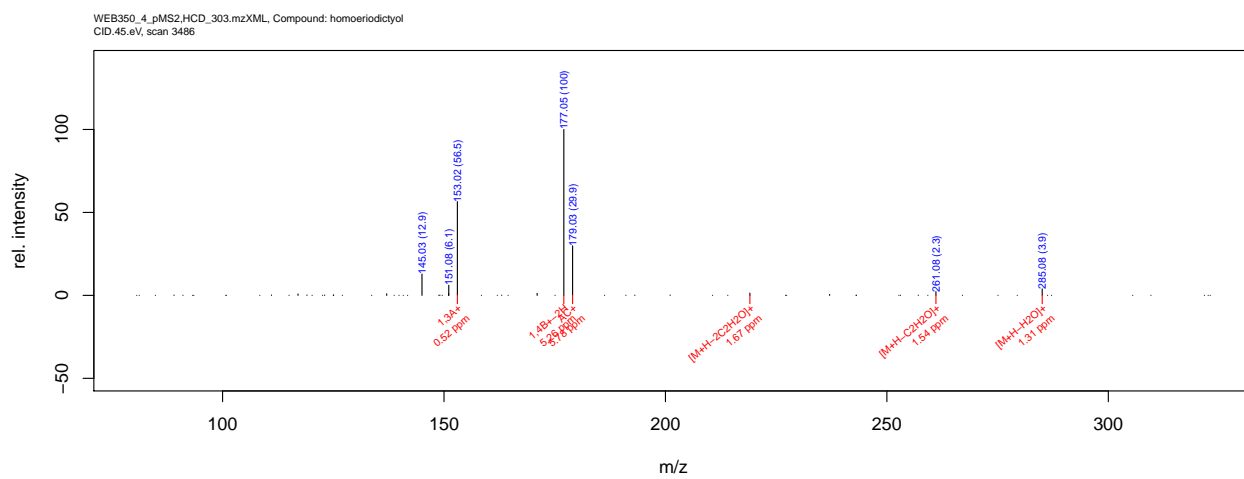
	mz	int	ppm	fragment
1	69.00	2.0	9.14	C3HO2+
2	89.04	29.0	7.13	C7H5+
3	91.05	3.2	6.99	C7H7+
4	111.01	1.4	5.81	1,3A+-C2H2O
5	117.03	15.5	3.76	1,4B+-2H-C2H2O-H2O
6	134.04	10.7	2.02	1,4B+-2H-CH3-CO
7	149.06	14.8	5.61	1,4B+-2H-CO
8	153.02	100.0	0.62	1,3A+
9	177.05	4.5	4.75	1,4B+-2H
10	179.03	2.3	5.26	AC+
11	287.06	1.4	1.14	[M+H-CH4]+

# hesperetin.HCD.100eV



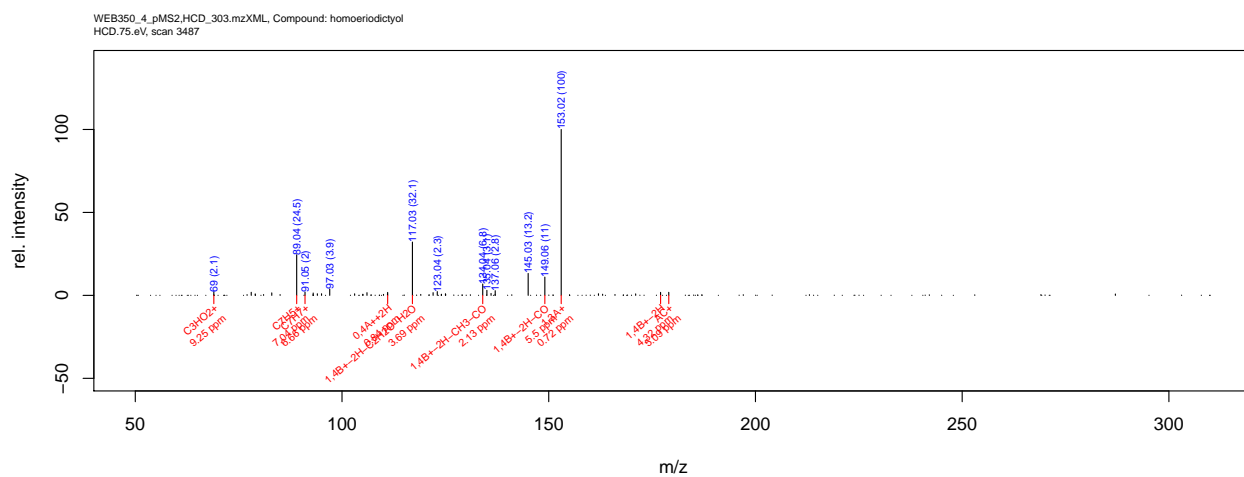
	mz	int	ppm	fragment
1	69.00	8.7	8.58	$C_3HO_2^+$
2	89.04	100.0	6.53	$C_7H_5^+$
3	91.05	7.0	6.41	$C_7H_7^+$
4	111.01	2.1	6.36	$1,3A+-C_2H_2O$
5	117.03	13.1	4.47	$1,4B+-2H-C_2H_2O-H_2O$
6	125.02	1.2	0.73	$1,4A^+$
7	125.02	1.2	0.73	$1,4A++2H$
8	134.04	19.6	2.70	$1,4B+-2H-CH_3-CO$
9	137.02	3.1	1.00	$0,3A^+$
10	149.06	5.4	4.79	$1,4B+-2H-CO$
11	153.02	62.7	1.42	$1,3A^+$
12	179.03	1.6	5.43	$AC^+$

# homoeriodictyol.CID.45eV



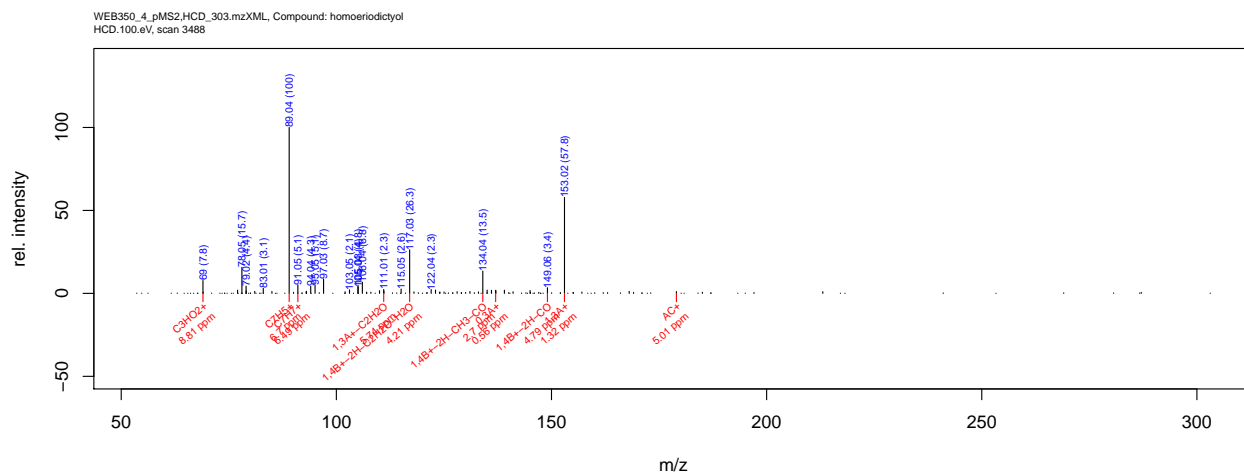
	mz	int	ppm	fragment
1	153.02	56.5	0.52	1,3A+
2	177.05	100.0	5.26	1,4B+-2H
3	179.03	29.9	5.78	AC+
4	219.07	1.4	1.67	[M+H-2C2H2O]+
5	261.08	2.3	1.54	[M+H-C2H2O]+
6	285.08	3.9	1.31	[M+H-H2O]+

# homoeriodictyol.HCD.75eV



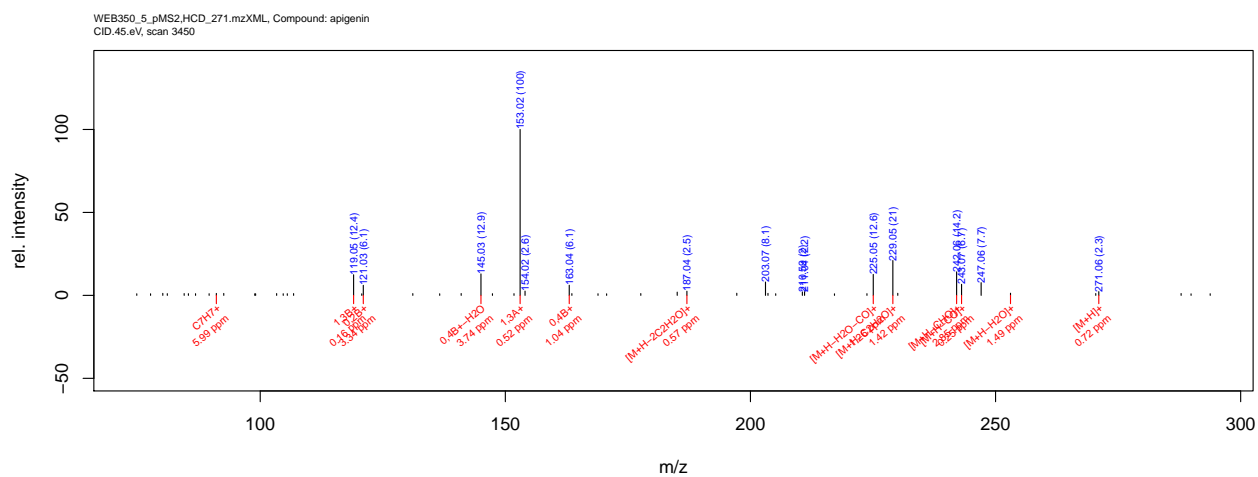
	mz	int	ppm	fragment
1	69.00	2.1	9.25	C3HO2+
2	89.04	24.5	7.04	C7H5+
3	91.05	2.0	6.66	C7H7+
4	111.04	1.8	0.84	0,4A++2H
5	117.03	32.1	3.69	1,4B+-2H-C2H2O-H2O
6	134.04	6.8	2.13	1,4B+-2H-CH3-CO
7	149.06	11.0	5.50	1,4B+-2H-CO
8	153.02	100.0	0.72	1,3A+
9	177.05	1.8	4.32	1,4B+-2H
10	179.03	1.8	5.09	AC+

# homoeriodictyol.HCD.100eV



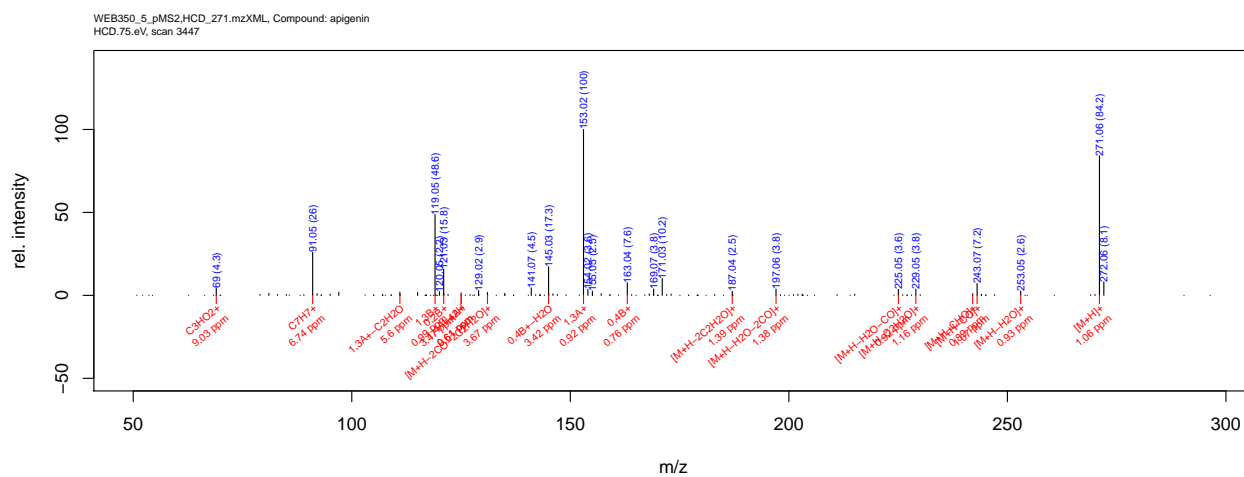
	mz	int	ppm	fragment
1	69.00	7.8	8.81	$C_3HO_2^+$
2	89.04	100.0	6.70	$C_7H_5^+$
3	91.05	5.1	6.49	$C_7H_7^+$
4	111.01	2.3	5.74	$1,3A+-C_2H_2O$
5	117.03	26.3	4.21	$1,4B+-2H-C_2H_2O-H_2O$
6	134.04	13.5	2.70	$1,4B+-2H-CH_3-CO$
7	137.02	1.8	0.56	$0,3A^+$
8	149.06	3.4	4.79	$1,4B+-2H-CO$
9	153.02	57.8	1.32	$1,3A^+$
10	179.03	1.1	5.01	$AC^+$

# apigenin.CID.45eV



	mz	int	ppm	fragment
1	91.05	1.2	5.99	C7H7+
2	119.05	12.4	0.16	1,3B+
3	121.03	6.1	3.34	0,2B+
4	145.03	12.9	3.74	0,4B+-H2O
5	153.02	100.0	0.52	1,3A+
6	163.04	6.1	1.04	0,4B+
7	187.04	2.5	0.57	[M+H-2C2H2O]+
8	225.05	12.6	1.26	[M+H-H2O-CO]+
9	229.05	21.0	1.42	[M+H-C2H2O]+
10	242.06	14.2	2.85	[M+H-CHO]+
11	243.07	6.7	0.25	[M+H-CO]+
12	253.05	1.3	1.49	[M+H-H2O]+
13	271.06	2.3	0.72	[M+H]+

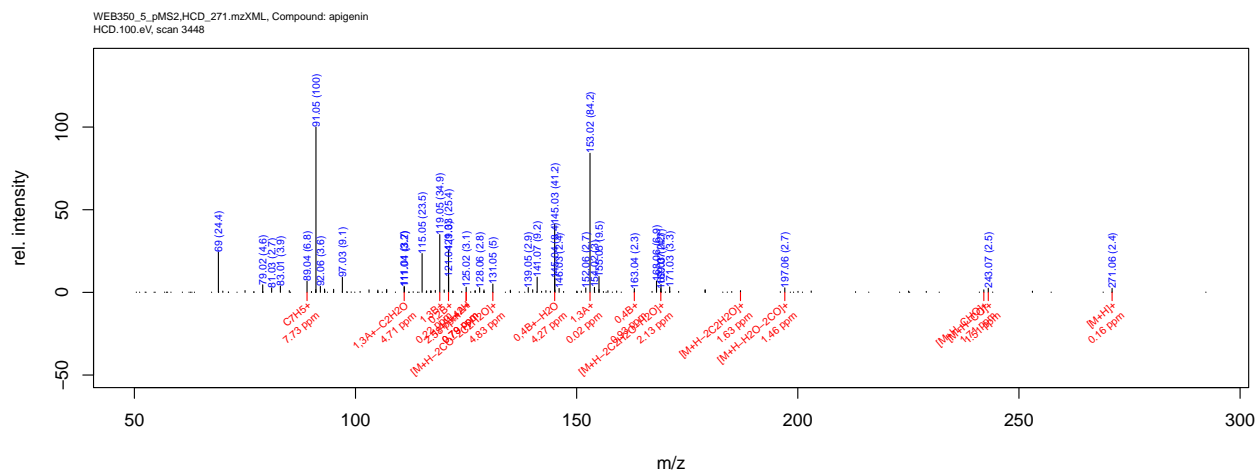
# apigenin.HCD.75eV



	mz	int	ppm	fragment
1	69.00	4.3	9.03	C3HO2+
2	91.05	26.0	6.74	C7H7+
3	111.01	2.0	5.60	1,3A+-C2H2O
4	119.05	48.6	0.99	1,3B+
5	121.03	15.8	3.47	0,2B+
6	125.02	1.5	0.61	1,4A+
7	125.02	1.5	0.61	1,4A++2H
8	131.05	1.7	3.67	[M+H-2CO-2C2H2O]+
9	145.03	17.3	3.42	0,4B+-H2O
10	153.02	100.0	0.92	1,3A+
11	163.04	7.6	0.76	0,4B+
12	187.04	2.5	1.39	[M+H-2C2H2O]+
13	197.06	3.8	1.38	[M+H-H2O-2CO]+
14	225.05	3.6	0.92	[M+H-H2O-CO]+
15	229.05	3.8	1.16	[M+H-C2H2O]+
16	242.06	1.0	0.89	[M+H-CHO]+
17	243.07	7.2	1.07	[M+H-CO]+
18	253.05	2.6	0.93	[M+H-H2O]+
19	271.06	84.2	1.06	[M+H]+

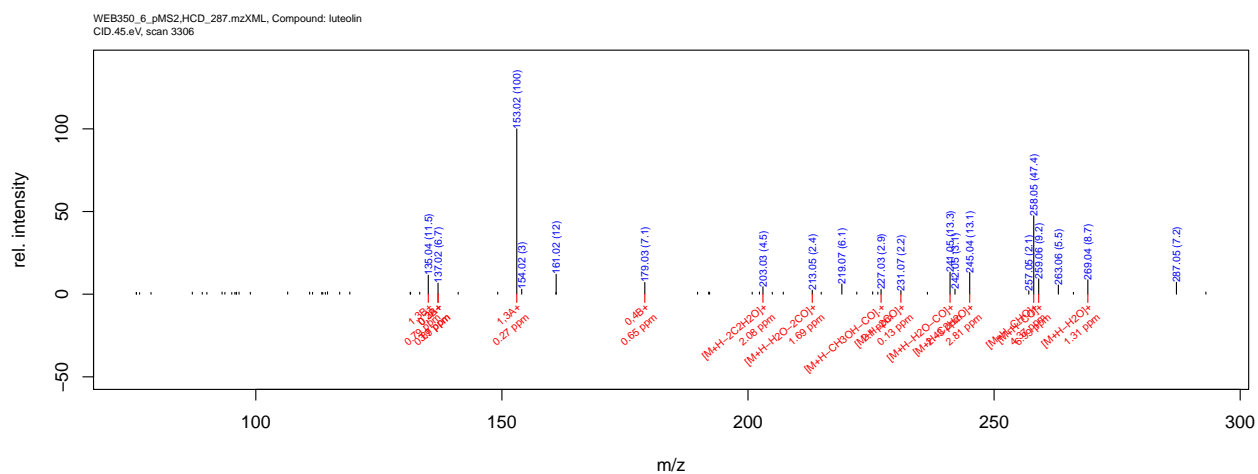


# apigenin.HCD.100eV



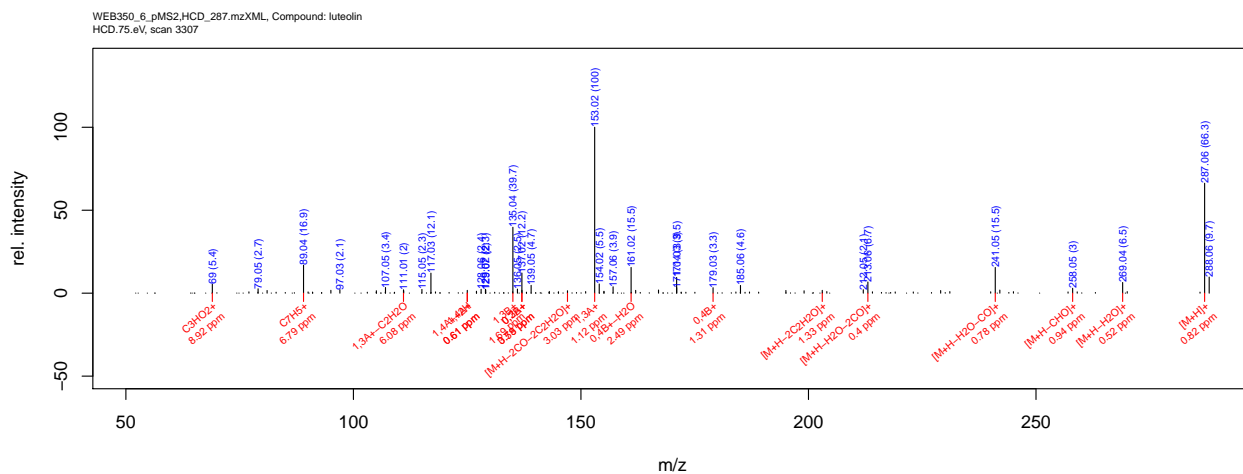
	mz	int	ppm	fragment
1	89.04	6.8	7.73	C7H5+
2	111.01	3.7	4.71	1,3A+-C2H2O
3	119.05	34.9	0.22	1,3B+
4	121.03	25.4	2.58	0,2B+
5	125.02	3.1	0.79	1,4A+
6	125.02	3.1	0.79	1,4A++2H
7	131.05	5.0	4.83	[M+H-2CO-2C2H2O]+
8	145.03	41.2	4.27	0,4B+-H2O
9	153.02	84.2	0.02	1,3A+
10	163.04	2.3	0.93	0,4B+
11	169.03	2.2	2.13	[M+H-2C2H2O-H2O]+
12	187.04	1.0	1.63	[M+H-2C2H2O]+
13	197.06	2.7	1.46	[M+H-H2O-2CO]+
14	242.06	1.5	1.71	[M+H-CHO]+
15	243.07	2.5	1.51	[M+H-CO]+
16	271.06	2.4	0.16	[M+H]+

# luteolin.CID.45eV



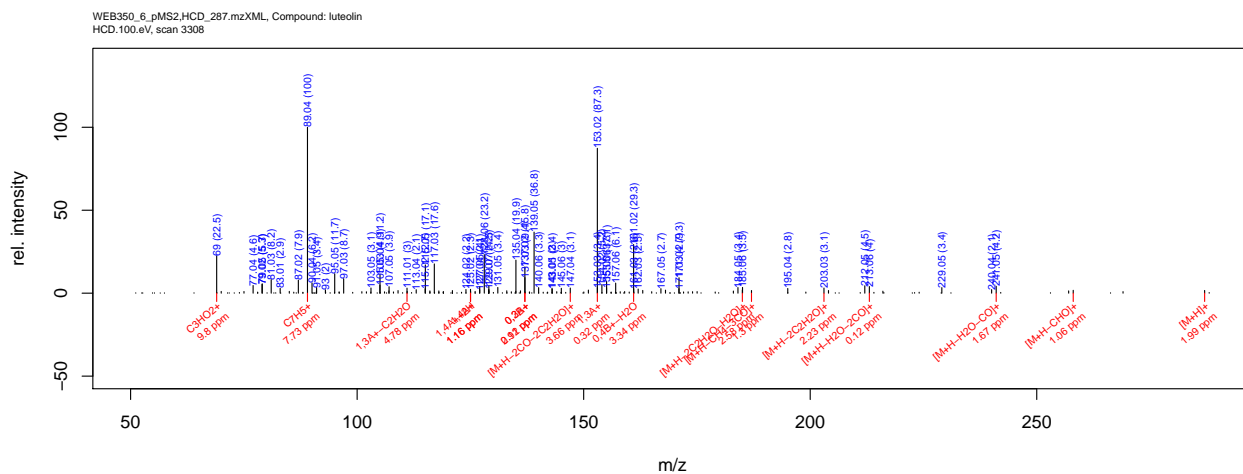
	mz	int	ppm	fragment
1	135.04	11.5	0.79	1,3B+
2	137.02	6.7	3.70	0,2B+
3	137.02	6.7	0.89	0,3A+
4	153.02	100.0	0.27	1,3A+
5	179.03	7.1	0.65	0,4B+
6	203.03	4.5	2.08	[M+H-2C2H2O]+
7	213.05	2.4	1.69	[M+H-H2O-2CO]+
8	227.03	2.9	2.10	[M+H-CH3OH-CO].+
9	231.07	2.2	0.13	[M+H-2CO]+
10	241.05	13.3	2.43	[M+H-H2O-CO]+
11	245.04	13.1	2.81	[M+H-C2H2O]+
12	258.05	47.4	4.37	[M+H-CHO]+
13	259.06	9.2	6.99	[M+H-CO]+
14	269.04	8.7	1.31	[M+H-H2O]+

# luteolin.HCD.75eV



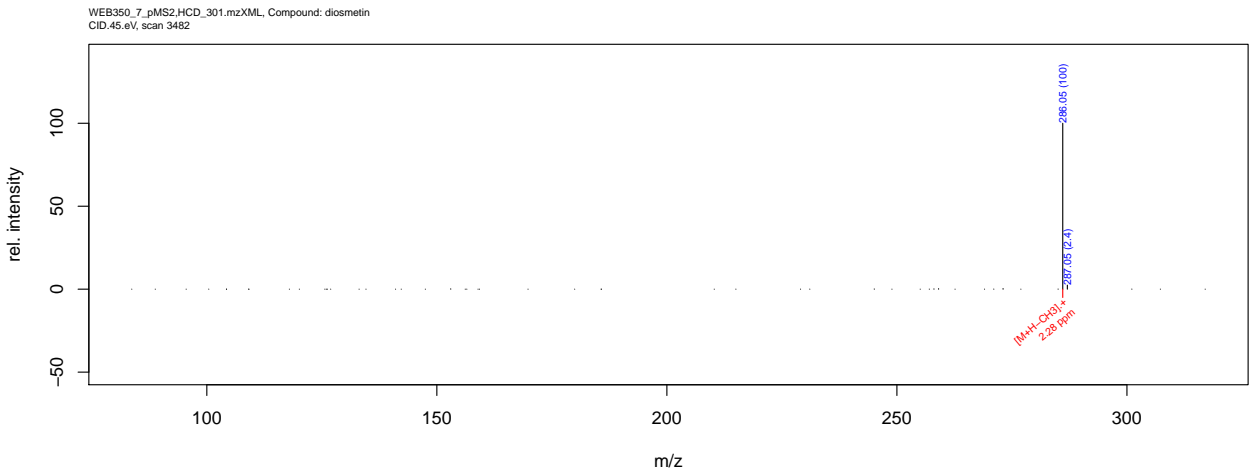
	mz	int	ppm	fragment
1	69.00	5.4	8.92	C3HO2+
2	89.04	16.9	6.79	C7H5+
3	111.01	2.0	6.08	1,3A+-C2H2O
4	125.02	1.7	0.61	1,4A+
5	125.02	1.7	0.61	1,4A++2H
6	135.04	39.7	1.69	1,3B+
7	137.02	12.2	3.59	0,2B+
8	137.02	12.2	0.78	0,3A+
9	147.04	1.5	3.03	[M+H-2CO-2C2H2O]+
10	153.02	100.0	1.12	1,3A+
11	161.02	15.5	2.49	0,4B+-H2O
12	179.03	3.3	1.31	0,4B+
13	203.03	1.7	1.33	[M+H-2C2H2O]+
14	213.06	6.7	0.40	[M+H-H2O-2CO]+
15	241.05	15.5	0.78	[M+H-H2O-CO]+
16	258.05	3.0	0.94	[M+H-CHO]+
17	269.04	6.5	0.52	[M+H-H2O]+
18	287.06	66.3	0.82	[M+H]+

# luteolin.HCD.100eV



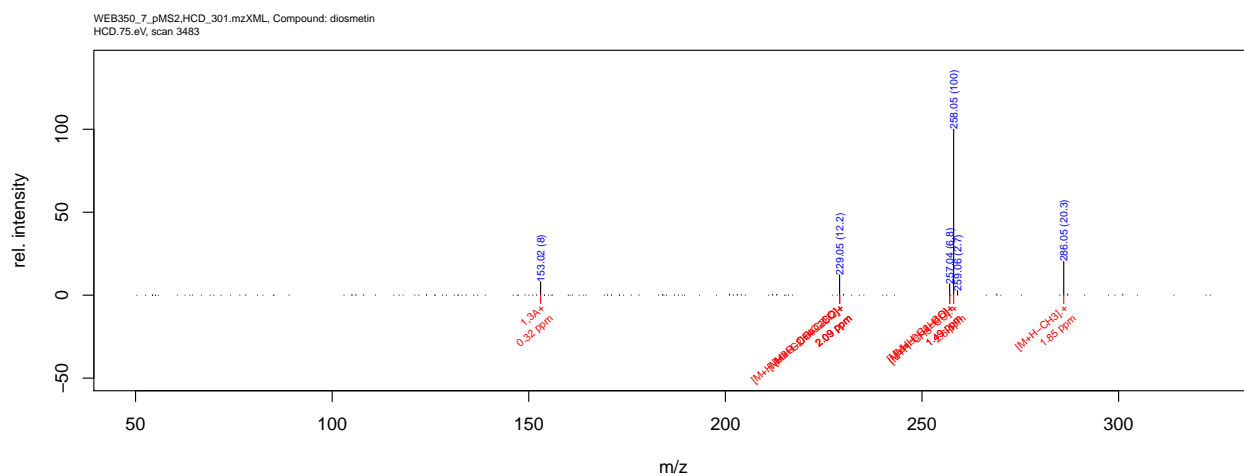
	mz	int	ppm	fragment
1	69.00	22.5	9.80	C3HO2+
2	89.04	100.0	7.73	C7H5+
3	111.01	3.0	4.78	1,3A+-C2H2O
4	125.02	2.3	1.16	1,4A+
5	125.02	2.3	1.16	1,4A++2H
6	137.02	15.8	2.92	0,2B+
7	137.02	15.8	0.11	0,3A+
8	147.04	3.1	3.66	[M+H-2CO-2C2H2O]+
9	153.02	87.3	0.32	1,3A+
10	161.02	29.3	3.34	0,4B+-H2O
11	185.02	1.9	2.58	[M+H-2C2H2O-H2O]+
12	187.04	1.6	1.30	[M+H-CH4-3CO]+
13	203.03	3.1	2.23	[M+H-2C2H2O]+
14	213.06	4.0	0.12	[M+H-H2O-2CO]+
15	241.05	4.2	1.67	[M+H-H2O-CO]+
16	258.05	1.7	1.06	[M+H-CHO]+
17	287.05	1.6	1.99	[M+H]+

diosmetin.CID.45eV



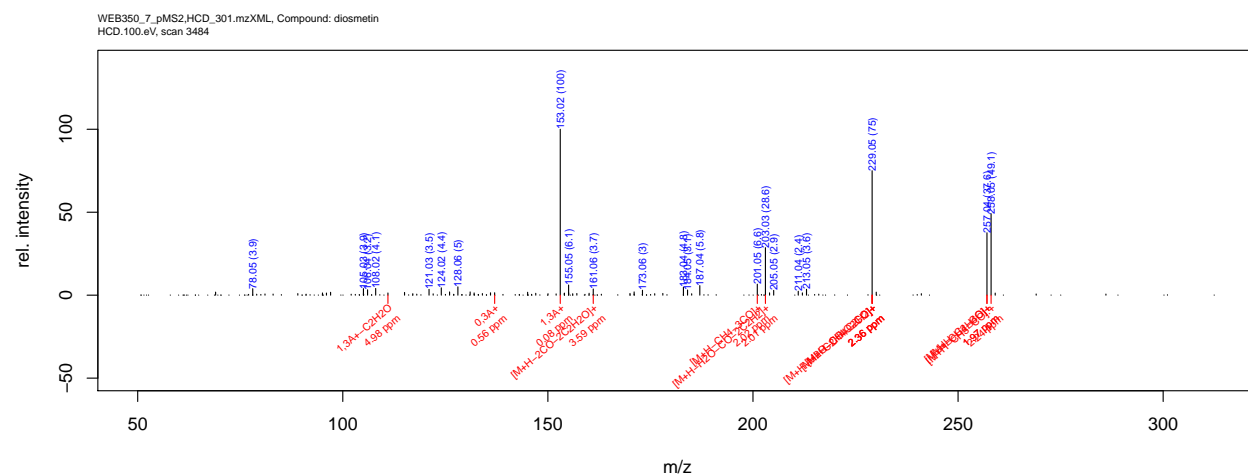
	mz	int	ppm	fragment
1	286.05	100.0	2.28	[M+H-CH3].+

# diosmetin.HCD.75eV



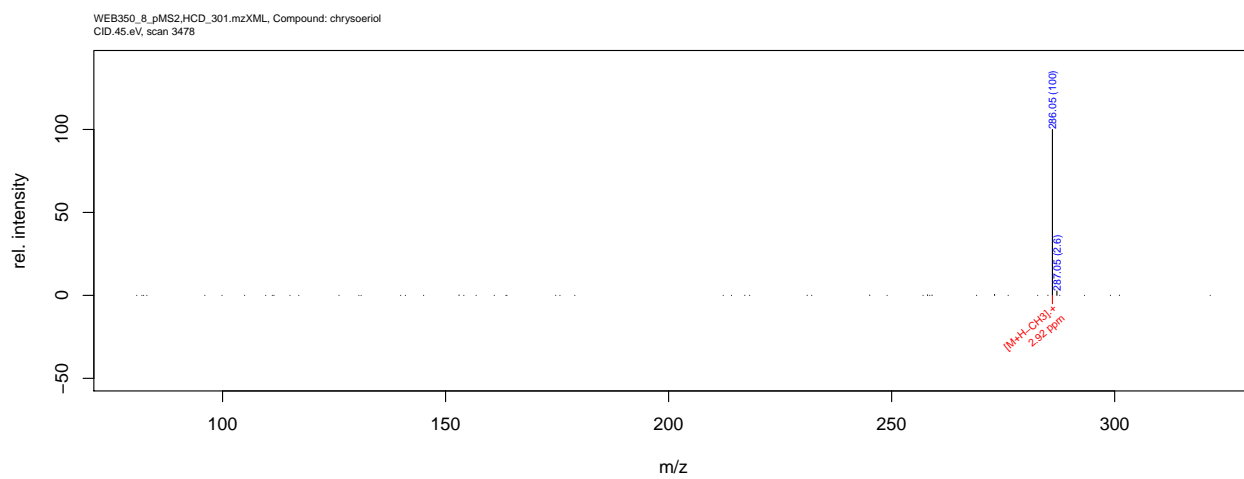
	mz	int	ppm	fragment
1	153.02	8.0	0.32	1,3A+
2	229.05	12.2	2.09	[M+h-C <sub>2</sub> H <sub>4</sub> O-CO]+
3	229.05	12.2	2.09	[M+H-CH <sub>4</sub> -2CO]+
4	229.05	12.2	2.09	[M+H-H <sub>2</sub> O-CO-C <sub>2</sub> H <sub>2</sub> ]+
5	257.04	6.8	1.49	[M+H-C <sub>2</sub> H <sub>4</sub> O]+
6	257.04	6.8	1.49	[M+H-CH <sub>4</sub> -CO]+
7	258.05	100.0	2.60	[M+H-CH <sub>3</sub> -CO].+
8	286.05	20.3	1.85	[M+H-CH <sub>3</sub> ].+

# diosmetin.HCD.100eV



	mz	int	ppm	fragment
1	111.01	1.3	4.98	1,3A+-C2H2O
2	137.02	1.5	0.56	0,3A+
3	153.02	100.0	0.08	1,3A+
4	161.06	3.7	3.59	[M+H-2CO-2C2H2O]+
5	201.05	6.6	2.02	[M+H-CH4-3CO]+
6	203.03	28.6	2.01	[M+H-H2O-CO-2C2H2]+
7	229.05	75.0	2.36	[M+H-C2H4O-CO]+
8	229.05	75.0	2.36	[M+H-CH4-2CO]+
9	229.05	75.0	2.36	[M+H-H2O-CO-C2H2]+
10	257.04	37.6	1.97	[M+H-C2H4O]+
11	257.04	37.6	1.97	[M+H-CH4-CO]+
12	258.05	49.1	2.24	[M+H-CH3-CO].+

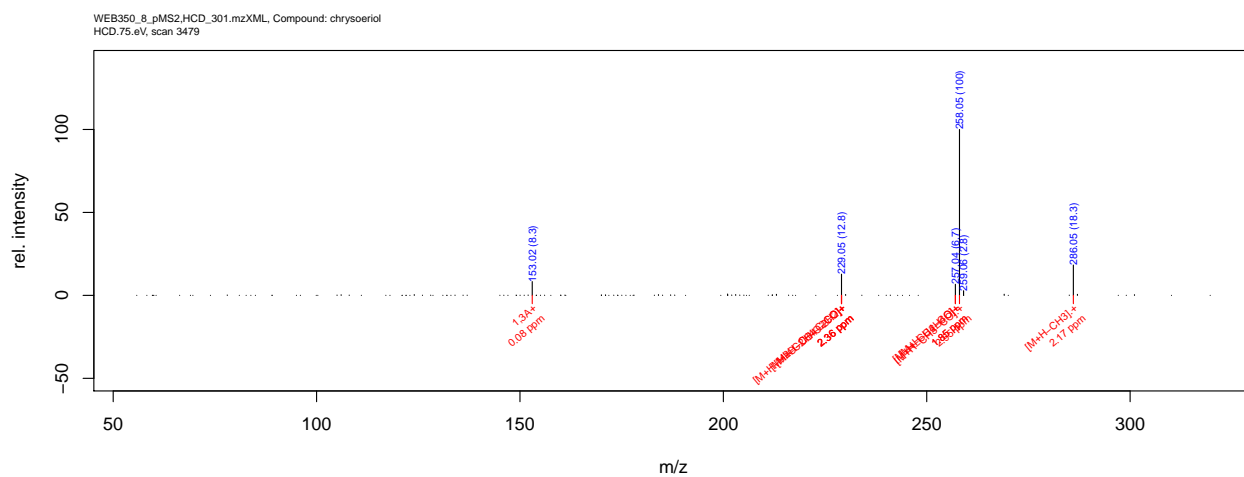
# chrysoeriol.CID.45eV



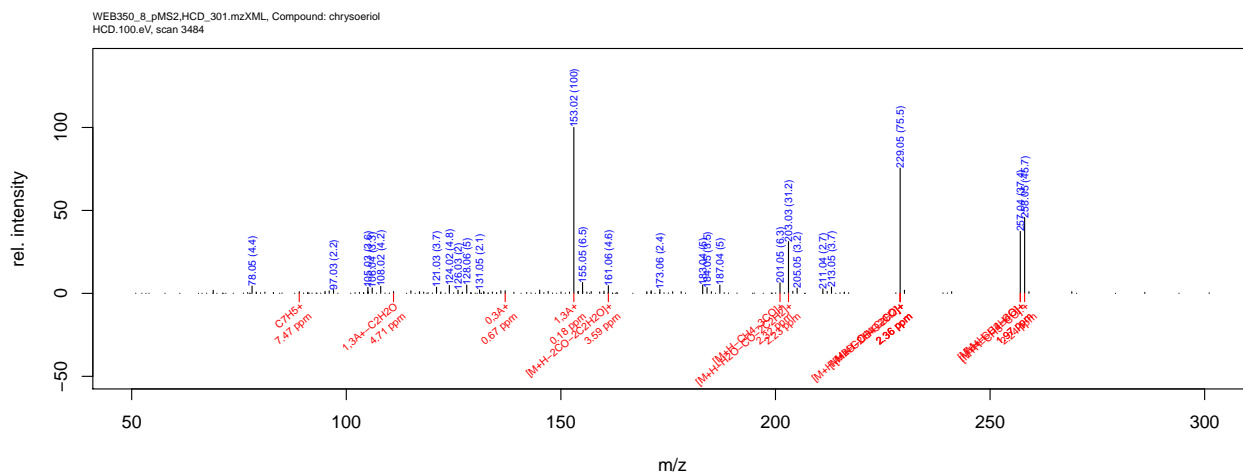
	mz	int	ppm	fragment
1	286.05	100.0	2.92	[M+H-CH3].+



# chrysoeriol.HCD.75eV

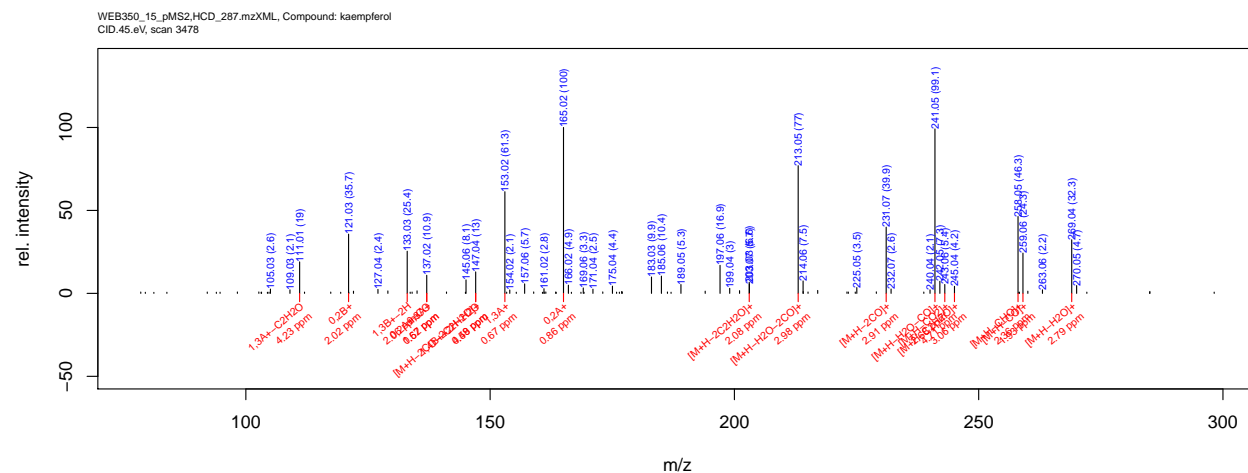


# chrysoeriol.HCD.100eV



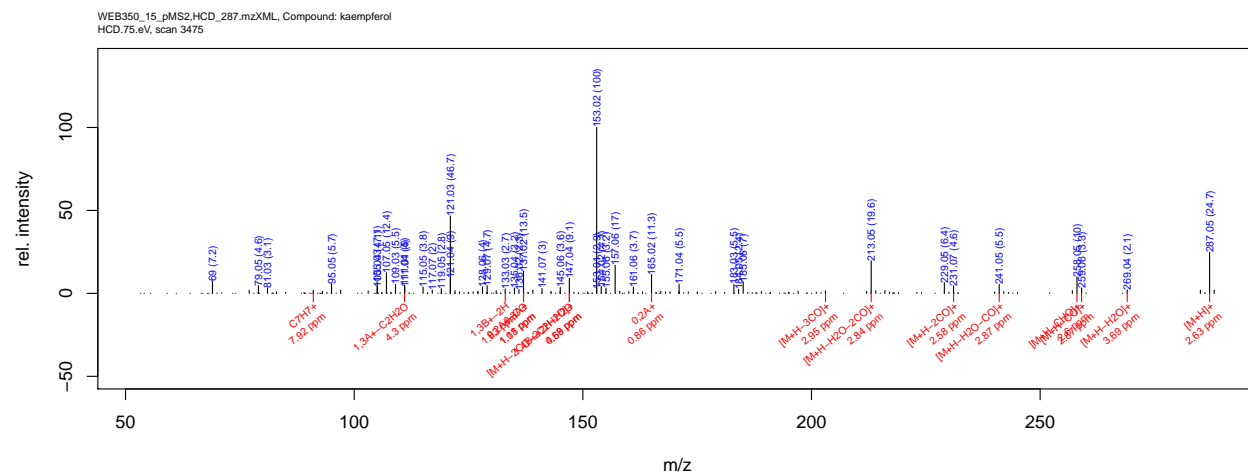
	mz	int	ppm	fragment
1	89.04	1.0	7.47	C7H5+
2	111.01	1.1	4.71	1,3A+-C2H2O
3	137.02	1.6	0.67	0,3A+
4	153.02	100.0	0.18	1,3A+
5	161.06	4.6	3.59	[M+H-2CO-2C2H2O]+
6	201.05	6.3	2.32	[M+H-CH4-3CO]+
7	203.03	31.2	2.23	[M+H-H2O-CO-2C2H2]+
8	229.05	75.5	2.36	[M+H-C2H4O-CO]+
9	229.05	75.5	2.36	[M+H-CH4-2CO]+
10	229.05	75.5	2.36	[M+H-H2O-CO-C2H2]+
11	257.04	37.4	1.97	[M+H-C2H4O]+
12	257.04	37.4	1.97	[M+H-CH4-CO]+
13	258.05	45.7	2.24	[M+H-CH3-CO].+

# kaempferol.CID.45eV



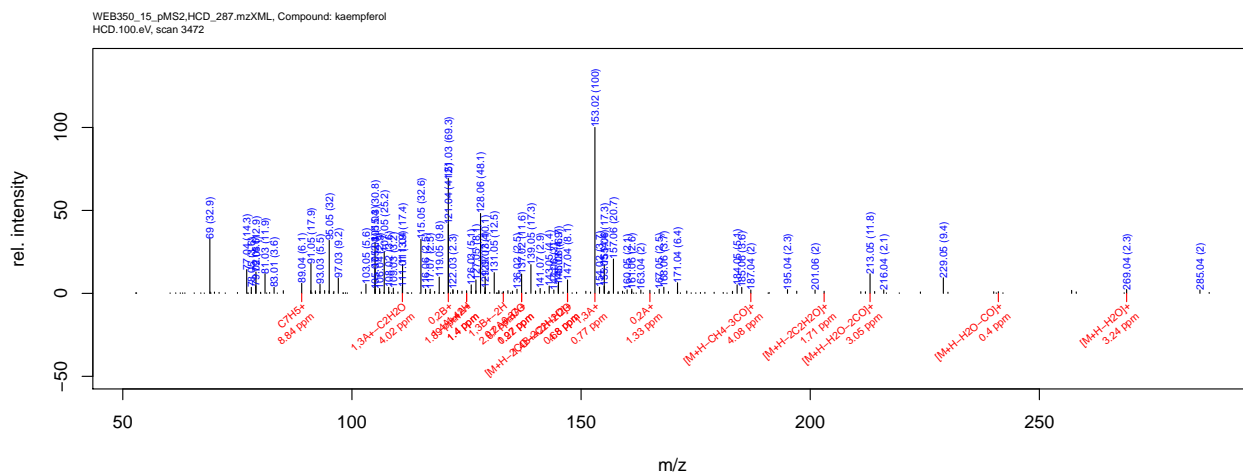
	mz	int	ppm	fragment
1	111.01	19.0	4.23	1,3A+-C2H2O
2	121.03	35.7	2.02	0,2B+
3	133.03	25.4	2.06	1,3B+-2H
4	137.02	10.9	1.52	0,2A+-CO
5	137.02	10.9	0.67	0,3A+
6	147.04	13.0	0.48	1,4B++2H-H2O
7	147.04	13.0	4.59	[M+H-2CO-2C2H2O]+
8	153.02	61.3	0.67	1,3A+
9	165.02	100.0	0.86	0,2A+
10	203.03	6.6	2.08	[M+H-2C2H2O]+
11	213.05	7.7	2.98	[M+H-H2O-2CO]+
12	231.07	39.9	2.91	[M+H-2CO]+
13	241.05	99.1	2.68	[M+H-H2O-CO]+
14	243.06	5.4	4.71	[M+H-CO2]+
15	245.04	4.2	3.06	[M+H-C2H2O]+
16	258.05	46.3	2.36	[M+H-CHO]+
17	259.06	24.3	1.93	[M+H-CO]+
18	269.04	32.3	2.79	[M+H-H2O]+

# kaempferol.HCD.75eV



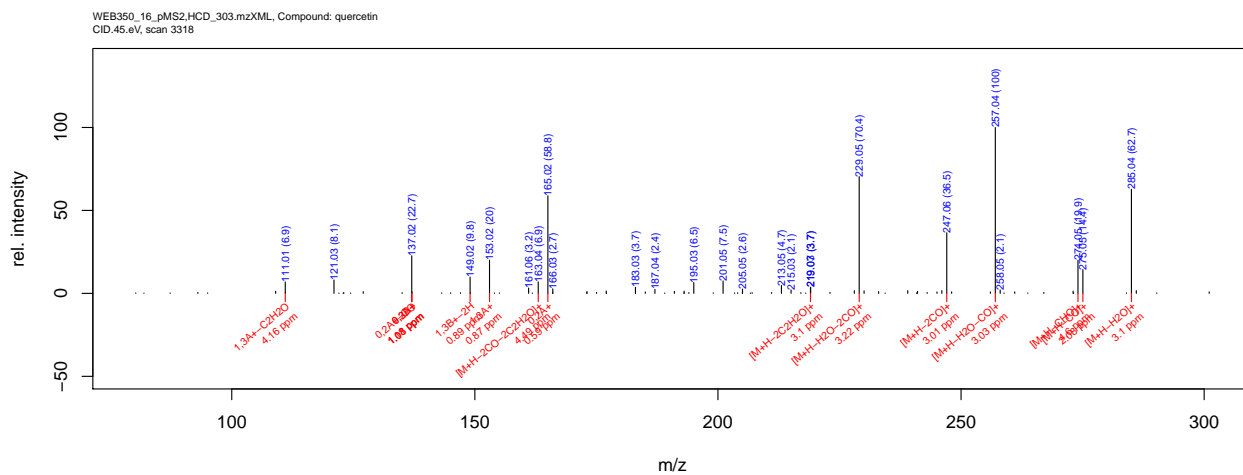
	mz	int	ppm	fragment
1	91.05	1.9	7.92	$C_7H_7^+$
2	111.01	5.0	4.30	$1,3A+-C_2H_2O$
3	133.03	2.7	1.83	$1,3B+-2H$
4	137.02	13.5	1.08	$0,2A+-CO$
5	137.02	13.5	1.11	$0,3A+$
6	147.04	9.1	0.58	$1,4B++2H-H_2O$
7	147.04	9.1	4.69	$[M+H-2CO-2C_2H_2O]^+$
8	165.02	11.3	0.86	$0,2A+$
9	203.07	1.5	2.95	$[M+H-3CO]^+$
10	213.05	19.6	2.84	$[M+H-H_2O-2CO]^+$
11	231.07	4.6	2.58	$[M+H-2CO]^+$
12	241.05	5.5	2.87	$[M+H-H_2O-CO]^+$
13	258.05	10.0	2.60	$[M+H-CHO]^+$
14	259.06	3.3	2.87	$[M+H-CO]^+$
15	269.04	2.1	3.69	$[M+H-H_2O]^+$
16	287.05	24.7	2.63	$[M+H]^+$

# kaempferol.HCD.100eV



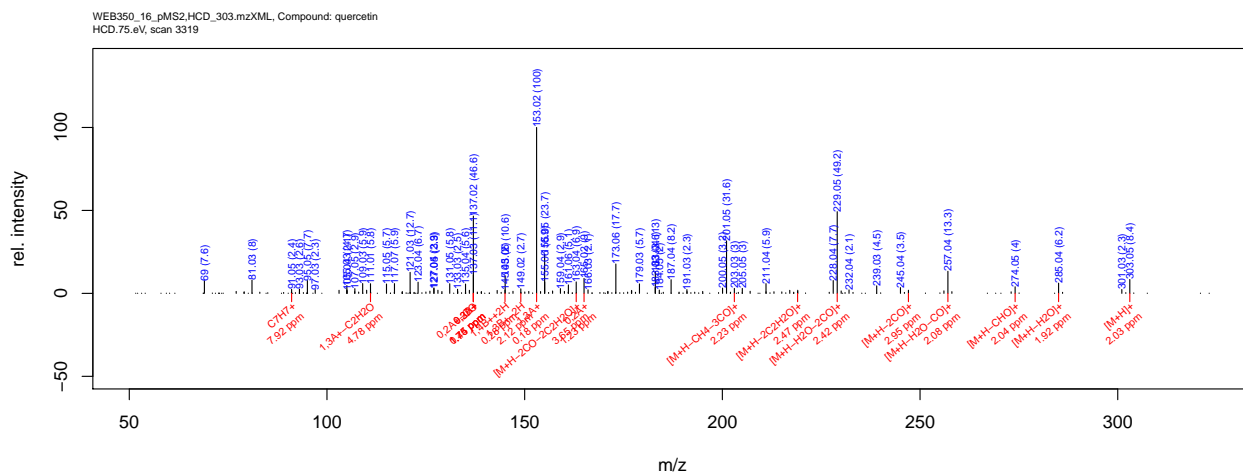
	mz	int	ppm	fragment
1	89.04	6.1	8.84	C7H5+
2	111.01	3.9	4.02	1,3A+-C2H2O
3	121.03	69.3	1.89	0,2B+
4	125.02	1.6	1.40	1,4A+
5	125.02	1.6	1.40	1,4A++2H
6	133.03	1.2	2.87	1,3B+-2H
7	137.02	11.6	0.97	0,2A+-CO
8	137.02	11.6	1.22	0,3A+
9	147.04	8.1	0.68	1,4B++2H-H2O
10	147.04	8.1	4.80	[M+H-2CO-2C2H2O]+
11	153.02	100.0	0.77	1,3A+
12	165.02	1.9	1.33	0,2A+
13	187.04	2.0	4.08	[M+H-CH4-3CO]+
14	203.03	1.3	1.71	[M+H-2C2H2O]+
15	213.05	11.8	3.05	[M+H-H2O-2CO]+
16	241.05	1.0	0.40	[M+H-H2O-CO]+
17	269.04	2.3	3.24	[M+H-H2O]+

# quercetin.CID.45eV



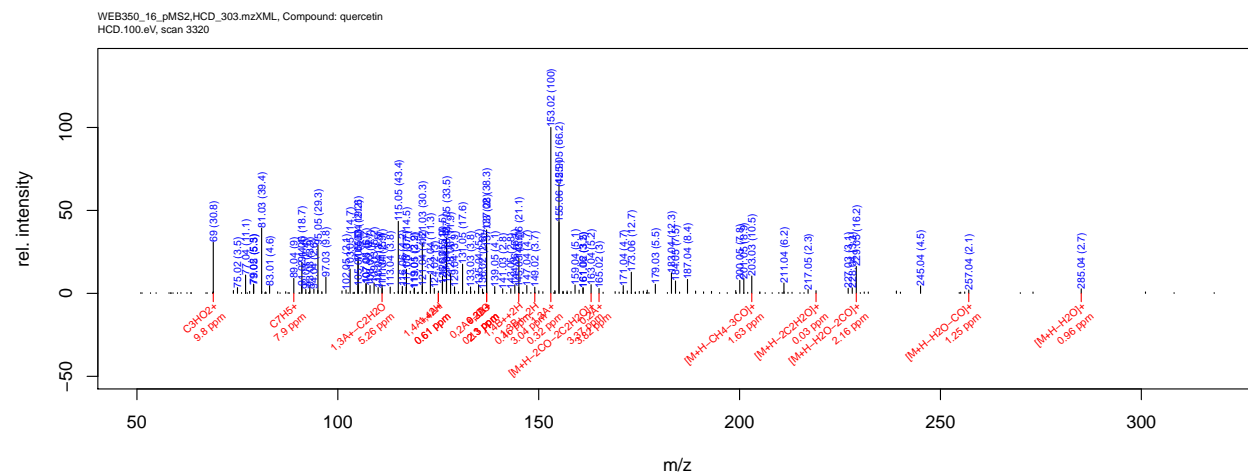
	mz	int	ppm	fragment
1	111.01	6.9	4.16	1,3A+-C2H2O
2	137.02	22.7	1.08	0,2A+-CO
3	137.02	22.7	1.08	0,2B+
4	137.02	22.7	1.11	0,3A+
5	149.02	9.8	0.89	1,3B+-2H
6	153.02	20.0	0.87	1,3A+
7	163.04	6.9	4.49	[M+H-2CO-2C2H2O]+
8	165.02	58.8	0.59	0,2A+
9	219.03	3.7	3.10	[M+H-2C2H2O]+
10	229.05	70.4	3.22	[M+H-H2O-2CO]+
11	247.06	36.5	3.01	[M+H-2CO]+
12	257.04	100.0	3.03	[M+H-H2O-CO]+
13	274.05	19.9	4.60	[M+H-CHO]+
14	275.05	14.4	2.08	[M+H-CO]+
15	285.04	62.7	3.10	[M+H-H2O]+

# quercetin.HCD.75eV



	mz	int	ppm	fragment
1	91.05	2.4	7.92	C7H7+
2	111.01	5.8	4.78	1,3A+-C2H2O
3	137.02	46.6	1.75	0,2A+-CO
4	137.02	46.6	1.75	0,2B+
5	137.02	46.6	0.44	0,3A+
6	145.03	2.0	0.28	1,4B++2H
7	149.02	2.7	2.12	1,3B+-2H
8	153.02	100.0	0.18	1,3A+
9	163.04	6.9	3.65	[M+H-2CO-2C2H2O]+
10	165.02	9.0	1.23	0,2A+
11	203.03	3.0	2.23	[M+H-CH4-3CO]+
12	219.03	1.1	2.47	[M+H-2C2H2O]+
13	229.05	49.2	2.42	[M+H-H2O-2CO]+
14	247.06	1.9	2.95	[M+H-2CO]+
15	257.04	13.3	2.08	[M+H-H2O-CO]+
16	274.05	4.0	2.04	[M+H-CHO]+
17	285.04	6.2	1.92	[M+H-H2O]+
18	303.05	8.4	2.03	[M+H]+

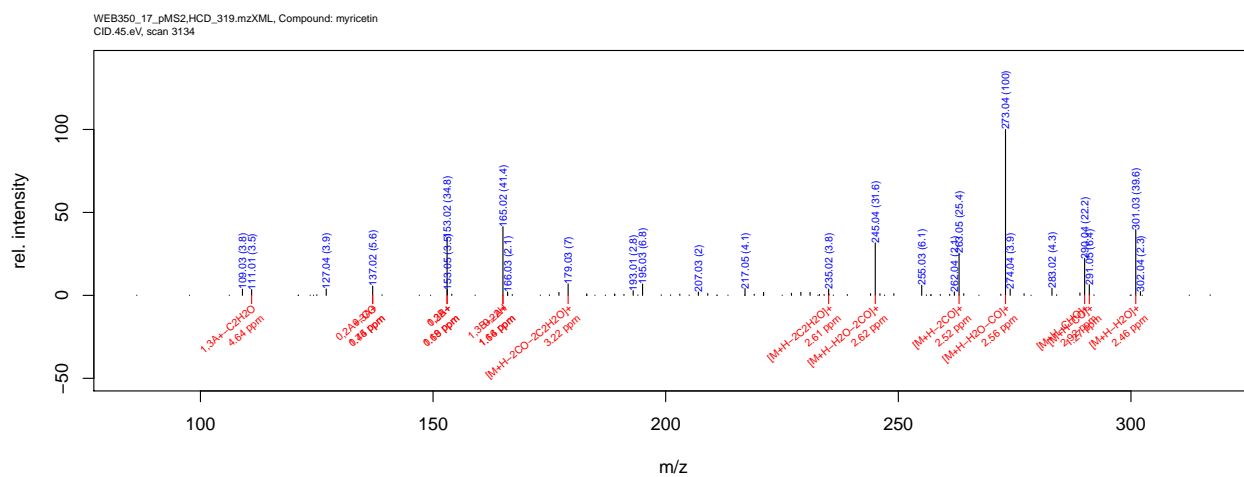
# quercetin.HCD.100eV



	mz	int	ppm	fragment
1	69.00	30.8	9.80	$C_3HO_2^+$
2	89.04	9.0	7.90	$C_7H_5^+$
3	111.01	5.1	5.26	$1,3A+-C_2H_2O$
4	125.02	1.4	0.61	$1,4A^+$
5	125.02	1.4	0.61	$1,4A++2H$
6	137.02	38.3	2.30	$0,2A+-CO$
7	137.02	38.3	2.30	$0,2B^+$
8	137.02	38.3	0.11	$0,3A^+$
9	145.03	3.6	0.46	$1,4B++2H$
10	149.02	3.7	3.04	$1,3B+-2H$
11	153.02	100.0	0.32	$1,3A^+$
12	163.04	5.2	3.37	$[M+H-2CO-2C_2H_2O]^+$
13	165.02	3.0	3.82	$0,2A^+$
14	203.03	10.5	1.63	$[M+H-CH_4-3CO]^+$
15	219.03	1.6	0.03	$[M+H-2C_2H_2O]^+$
16	229.05	16.2	2.16	$[M+H-H_2O-2CO]^+$
17	257.04	2.1	1.25	$[M+H-H_2O-CO]^+$
18	285.04	2.7	0.96	$[M+H-H_2O]^+$

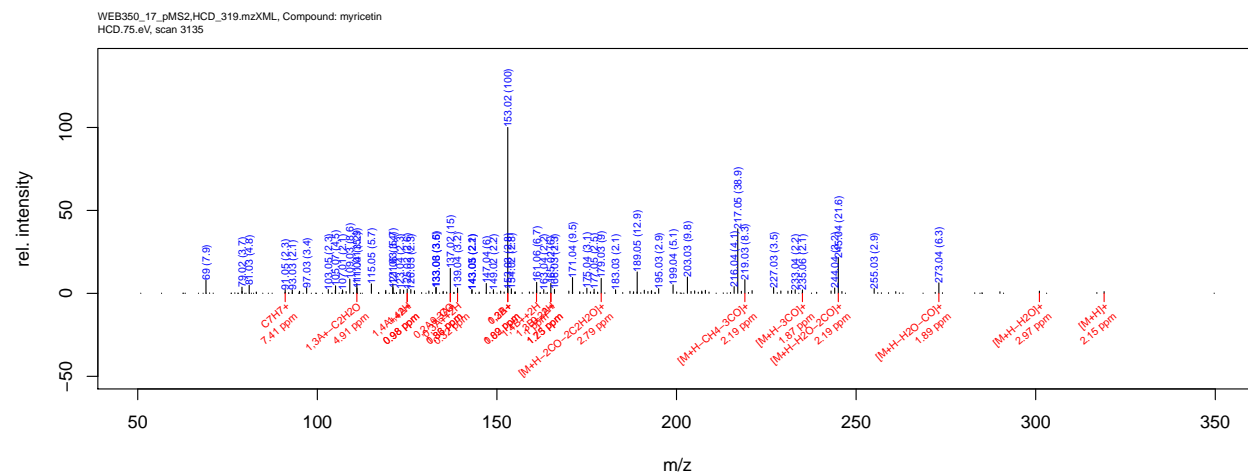


# myricetin.CID.45eV



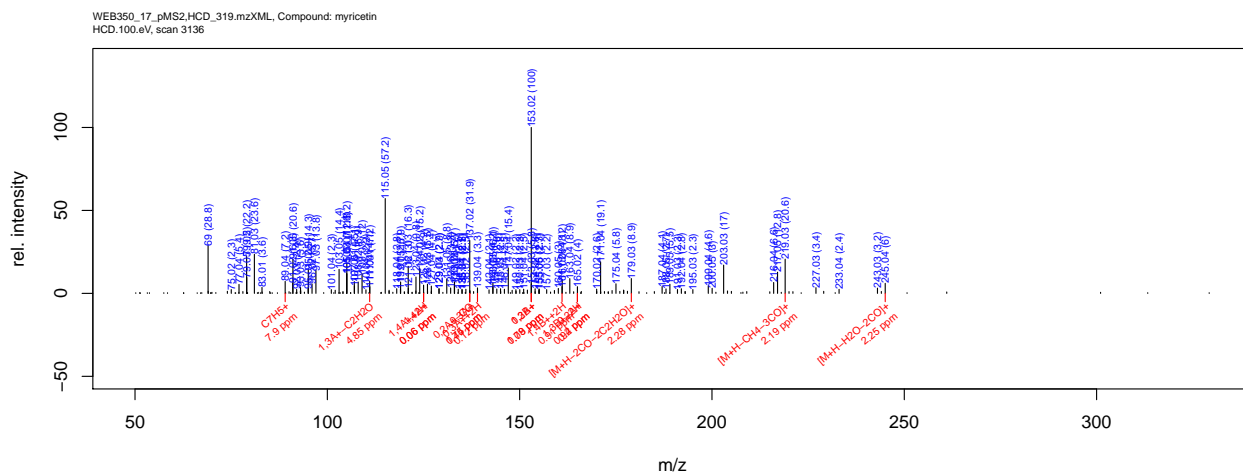
	mz	int	ppm	fragment
1	111.01	3.5	4.64	1,3A+-C2H2O
2	137.02	5.6	1.75	0,2A+-CO
3	137.02	5.6	0.44	0,3A+
4	153.02	34.8	1.69	0,2B+
5	153.02	34.8	0.18	1,3A+
6	165.02	41.4	1.14	0,2A+
7	165.02	41.4	1.66	1,3B+-2H
8	179.03	7.0	3.22	[M+H-2CO-2C2H2O]+
9	235.02	3.8	2.61	[M+H-2C2H2O]+
10	245.04	31.6	2.62	[M+H-H2O-2CO]+
11	263.05	25.4	2.52	[M+H-2CO]+
12	273.04	100.0	2.56	[M+H-H2O-CO]+
13	290.04	22.2	2.92	[M+H-CHO]+
14	291.05	6.4	1.27	[M+H-CO]+
15	301.03	39.6	2.46	[M+H-H2O]+

# myricetin.HCD.75eV



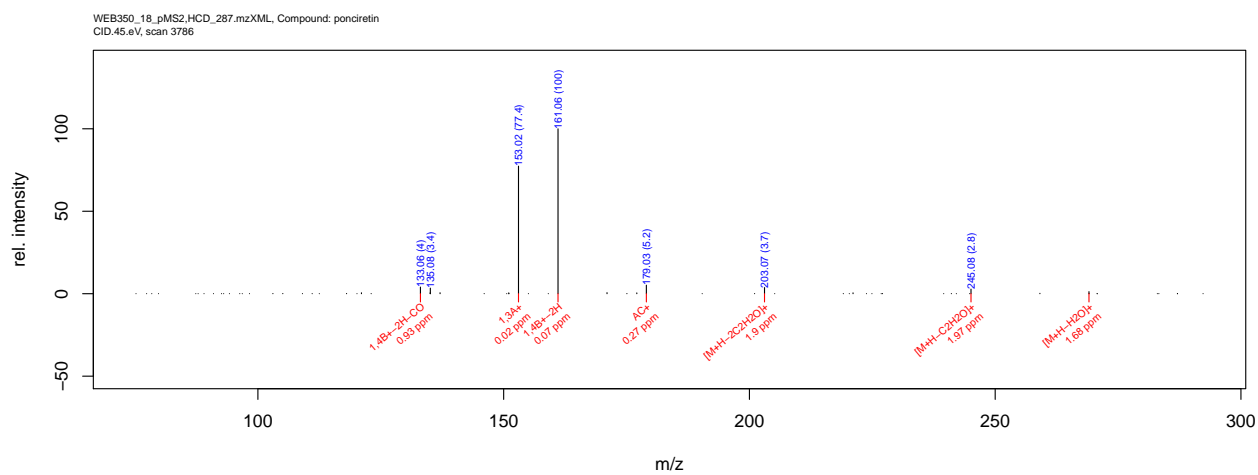
	mz	int	ppm	fragment
1	91.05	2.3	7.41	C7H7+
2	111.01	5.9	4.91	1,3A+-C2H2O
3	125.02	2.6	0.98	1,4A+
4	125.02	2.6	0.98	1,4A++2H
5	137.02	15.0	1.86	0,2A+-CO
6	137.02	15.0	0.33	0,3A+
7	139.04	3.2	0.32	0,3A++2H
8	153.02	100.0	1.89	0,2B+
9	153.02	100.0	0.02	1,3A+
10	161.02	1.9	1.00	1,4B++2H
11	165.02	6.0	1.23	0,2A+
12	165.02	6.0	1.75	1,3B+-2H
13	179.03	9.0	2.79	[M+H-2CO-2C2H2O]+
14	219.03	8.3	2.19	[M+H-CH4-3CO]+
15	235.06	2.1	1.87	[M+H-3CO]+
16	245.04	21.6	2.19	[M+H-H2O-2CO]+
17	273.04	6.3	1.89	[M+H-H2O-CO]+
18	301.03	1.4	2.97	[M+H-H2O]+
19	319.04	1.1	2.15	[M+H]+

## myricetin.HCD.100eV



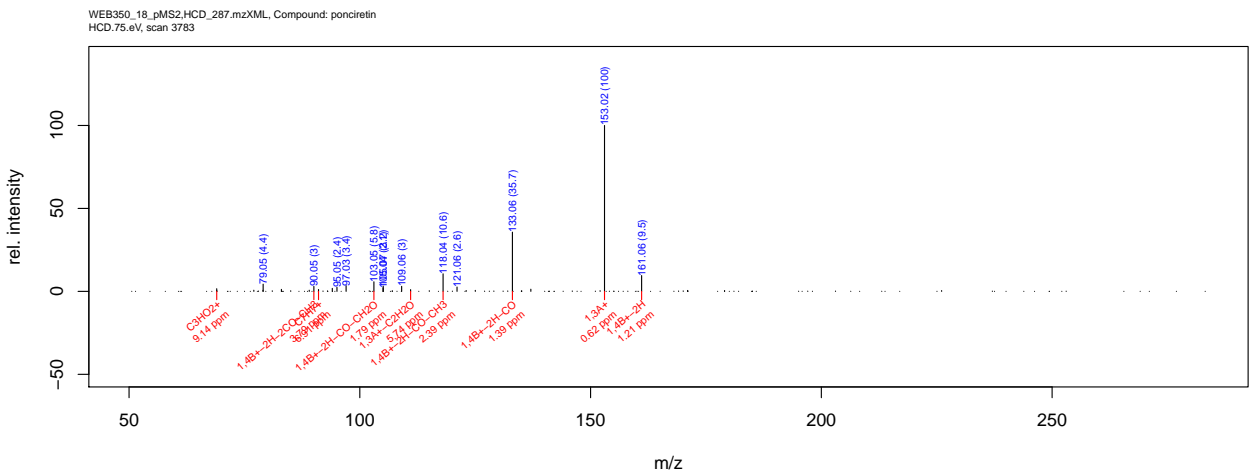
	mz	int	ppm	fragment
1	89.04	7.2	7.90	C7H5+
2	111.01	7.2	4.85	1,3A+-C2H2O
3	125.02	4.9	0.06	1,4A+
4	125.02	4.9	0.06	1,4A++2H
5	137.02	31.9	1.75	0,2A+-CO
6	137.02	31.9	0.44	0,3A+
7	139.04	3.3	0.12	0,3A++2H
8	153.02	100.0	1.79	0,2B+
9	153.02	100.0	0.08	1,3A+
10	161.02	4.1	0.91	1,4B++2H
11	165.02	4.0	0.40	0,2A+
12	165.02	4.0	0.92	1,3B+-2H
13	179.03	8.9	2.28	[M+H-2CO-2C2H2O]+
14	219.03	20.6	2.19	[M+H-CH4-3CO]+
15	245.04	6.0	2.25	[M+H-H2O-2CO]+

# ponciretin.CID.45eV



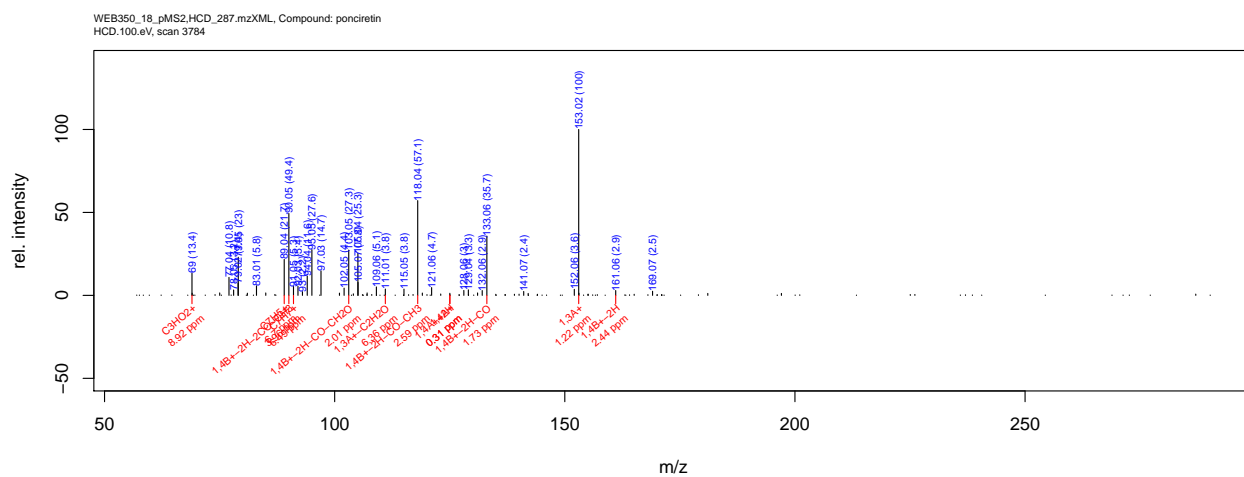
	mz	int	ppm	fragment
1	133.06	4.0	0.93	1,4B+-2H-CO
2	153.02	77.4	0.02	1,3A+
3	161.06	100.0	0.07	1,4B+-2H
4	179.03	5.2	0.27	AC+
5	203.07	3.7	1.90	[M+H-2C2H2O]+
6	245.08	2.8	1.97	[M+H-C2H2O]+
7	269.08	1.3	1.68	[M+H-H2O]+

ponciretin.HCD.75eV



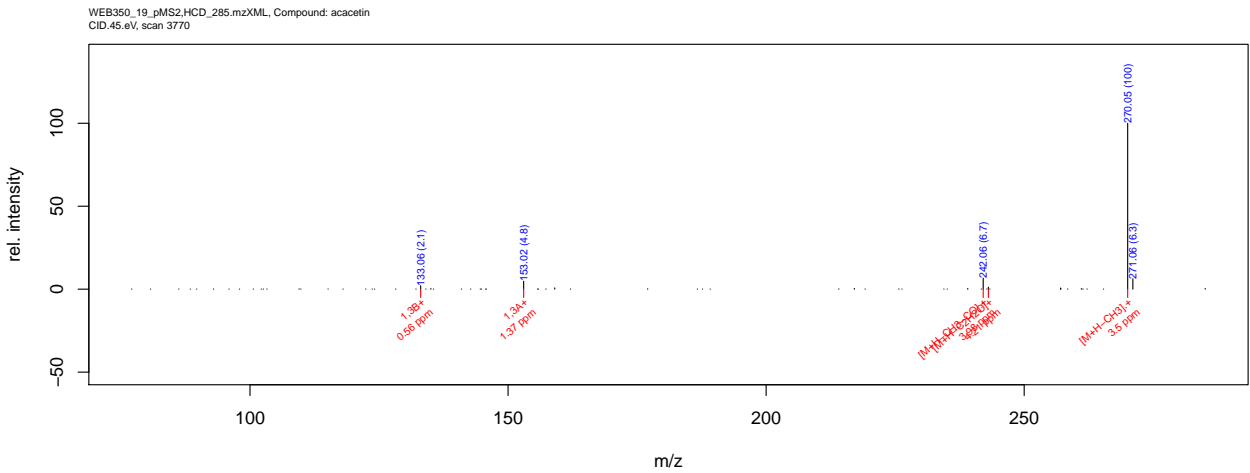
	mz	int	ppm	fragment
1	69.00	1.6	9.14	C3HO2+
2	90.05	3.0	3.79	1,4B+-2H-2CO-CH3
3	91.05	1.1	6.91	C7H7+
4	103.05	5.8	1.79	1,4B+-2H-CO-CH2O
5	111.01	1.1	5.74	1,3A+-C2H2O
6	118.04	10.6	2.39	1,4B+-2H-CO-CH3
7	133.06	35.7	1.39	1,4B+-2H-CO
8	153.02	100.0	0.62	1,3A+
9	161.06	9.5	1.21	1,4B+-2H

# ponciretin.HCD.100eV



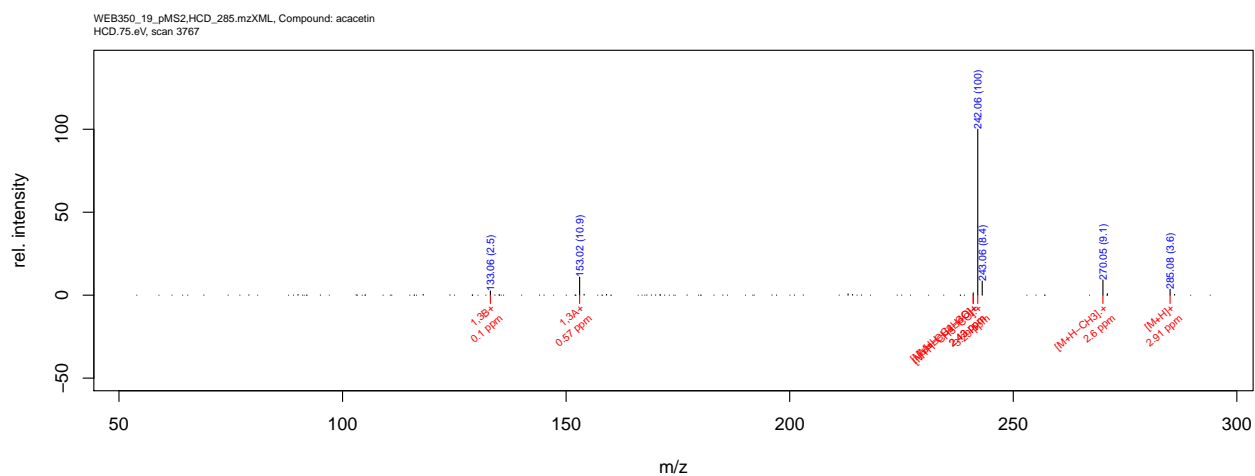
	mz	int	ppm	fragment
1	69.00	13.4	8.92	C3HO2+
2	89.04	21.7	6.70	C7H5+
3	90.05	49.4	3.96	1,4B+-2H-2CO-CH3
4	91.05	5.3	6.49	C7H7+
5	103.05	27.3	2.01	1,4B+-2H-CO-CH2O
6	111.01	3.8	6.36	1,3A+-C2H2O
7	118.04	57.1	2.59	1,4B+-2H-CO-CH3
8	125.02	1.3	0.31	1,4A+
9	125.02	1.3	0.31	1,4A++2H
10	133.06	35.7	1.73	1,4B+-2H-CO
11	153.02	100.0	1.22	1,3A+
12	161.06	2.9	2.44	1,4B+-2H

acacetin.CID.45eV



	mz	int	ppm	fragment
1	133.06	2.1	0.56	1,3B+
2	153.02	4.8	1.37	1,3A+
3	242.06	6.7	3.98	[M+H-CH3-CO].+
4	243.06	1.2	4.21	[M+H-C2H2O].+
5	270.05	100.0	3.50	[M+H-CH3].+

# acacetin.HCD.75eV

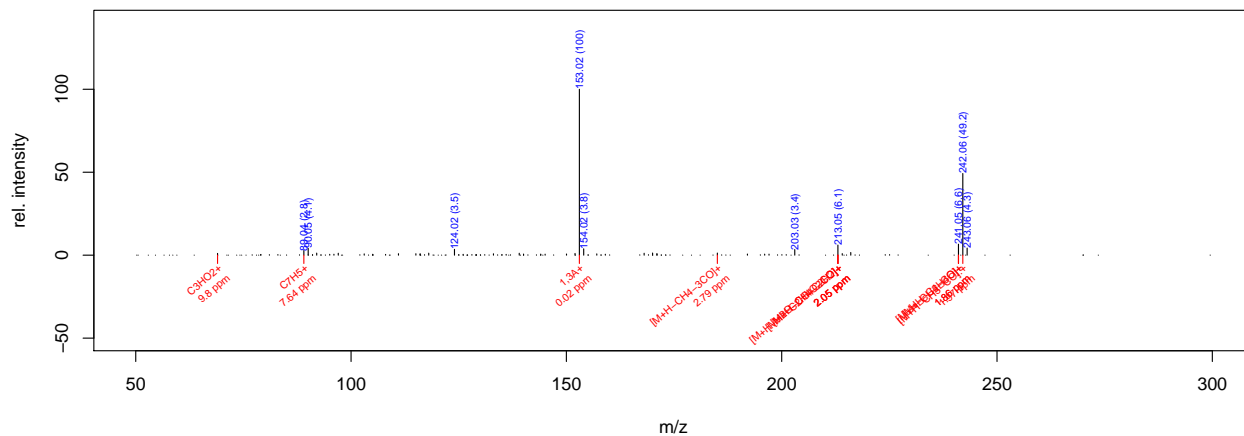


	mz	int	ppm	fragment
1	133.06	2.5	0.10	1,3B+
2	153.02	10.9	0.57	1,3A+
3	241.05	1.4	2.43	[M+H-C2H4O]+
4	241.05	1.4	2.43	[M+H-CH4-CO]+
5	242.06	100.0	3.29	[M+H-CH3-CO].+
6	270.05	9.1	2.60	[M+H-CH3].+
7	285.08	3.6	2.91	[M+H]+



# acacetin.HCD.100eV

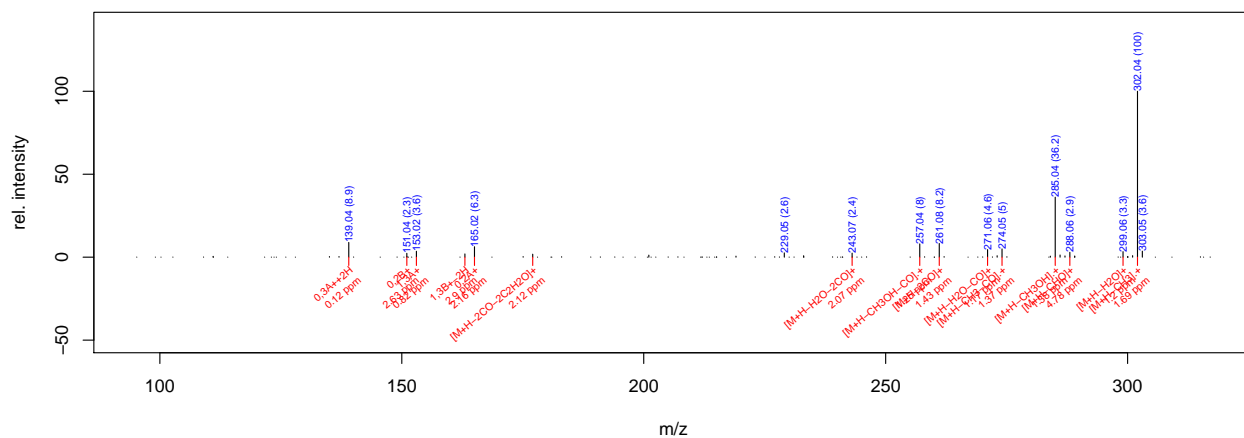
WEB350\_19\_pMS2.HCD\_285.mzXML, Compound: acacetin  
HCD, 100.eV, scan 3764



	mz	int	ppm	fragment
1	69.00	1.1	9.80	C3HO2+
2	89.04	2.8	7.64	C7H5+
3	153.02	100.0	0.02	1,3A+
4	185.06	1.3	2.79	[M+H-CH4-3CO]+
5	213.05	6.1	2.05	[M+H-C2H4O-CO]+
6	213.05	6.1	2.05	[M+H-CH4-2CO]+
7	213.05	6.1	2.05	[M+H-H2O-CO-C2H2]+
8	241.05	6.6	1.86	[M+H-C2H4O]+
9	241.05	6.6	1.86	[M+H-CH4-CO]+
10	242.06	49.2	1.97	[M+H-CH3-CO]+

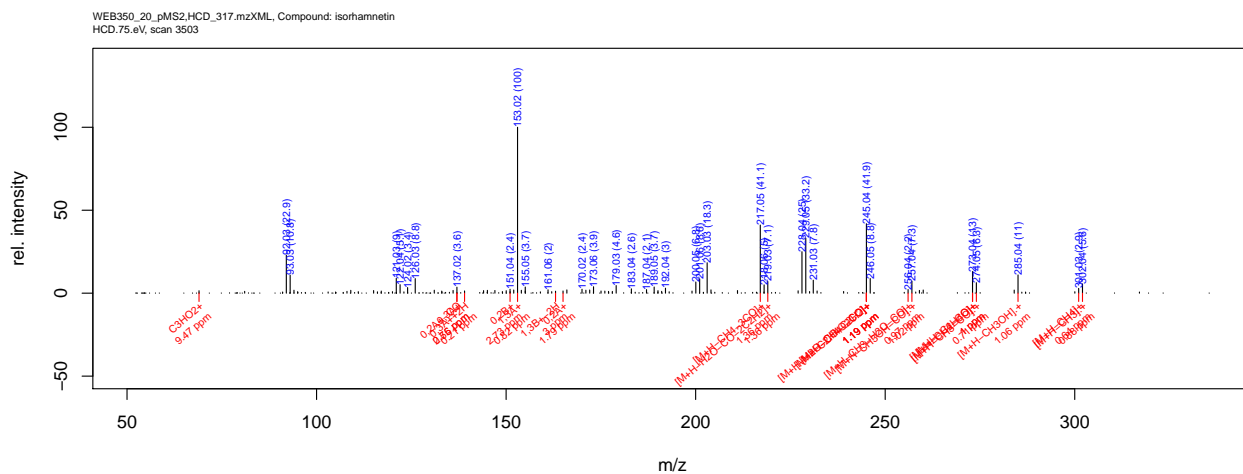
# isorhamnetin.CID.45eV

WEB350\_20\_pMS2.HCD\_317.mzXML, Compound: isorhamnetin  
CID:45.eV, scan 3498



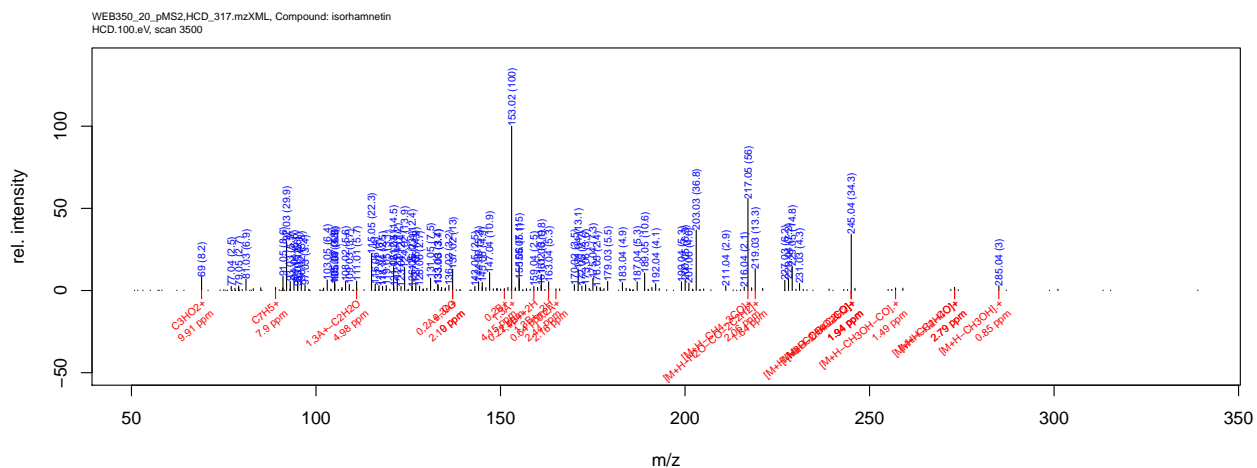
	mz	int	ppm	fragment
1	139.04	8.9	0.12	0,3A++2H
2	151.04	2.3	2.63	0,2B+
3	153.02	3.6	0.82	1,3A+
4	163.04	2.0	2.90	1,3B+-2H
5	165.02	6.3	2.16	0,2A+
6	177.05	1.8	2.12	[M+H-2CO-2C2H2O]+
7	243.07	2.4	2.07	[M+H-H2O-2CO]+
8	257.04	8.0	1.25	[M+H-CH3OH-CO].+
9	261.08	8.2	1.43	[M+H-2CO]+
10	271.06	4.6	1.17	[M+H-H2O-CO]+
11	274.05	5.0	1.37	[M+H-CH3-CO].+
12	285.04	36.2	1.38	[M+H-CH3OH].+
13	288.06	2.9	4.78	[M+H-CHO]+
14	299.06	3.3	1.20	[M+H-H2O]+
15	302.04	100.0	1.69	[M+H-CH3].+

# isorhamnetin.HCD.75eV



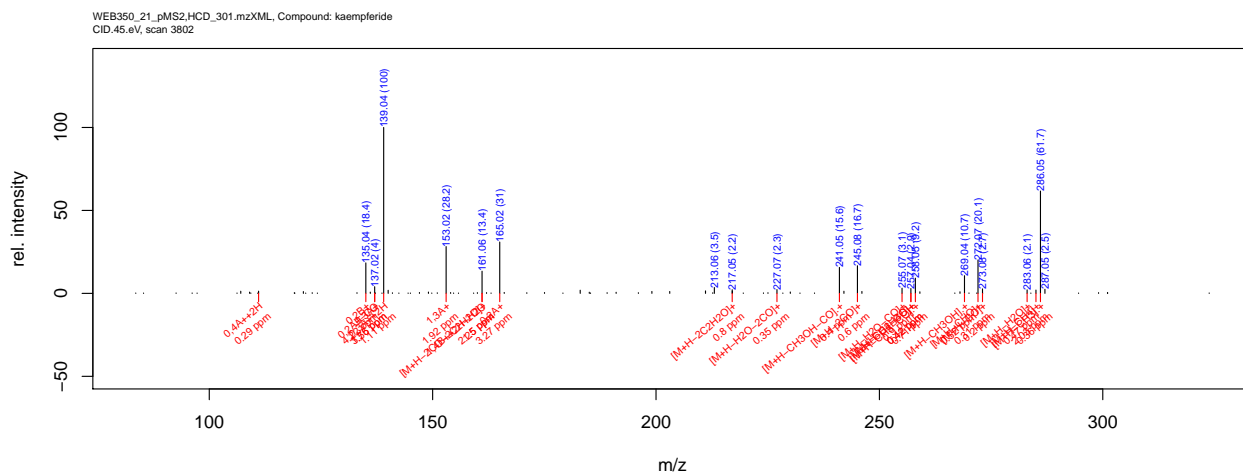
	mz	int	ppm	fragment
1	69.00	1.5	9.47	$C_3HO_2^+$
2	137.02	3.6	2.75	$0,2A^+-CO$
3	137.02	3.6	0.56	$0,3A^+$
4	139.04	1.3	0.21	$0,3A^{++}2H$
5	151.04	2.4	2.73	$0,2B^+$
6	153.02	100.0	0.82	$1,3A^+$
7	163.04	1.2	3.00	$1,3B^+-2H$
8	165.02	1.3	1.79	$0,2A^+$
9	217.05	41.1	1.36	$[M+H-CH_4-3CO]^+$
10	219.03	7.1	1.36	$[M+H-H_2O-CO-2C_2H_2]^+$
11	245.04	41.9	1.19	$[M+h-C_2H_4O-CO]^+$
12	245.04	41.9	1.19	$[M+H-CH_4-2CO]^+$
13	245.04	41.9	1.19	$[M+H-H_2O-CO-C_2H_2]^+$
14	256.04	2.2	0.97	$[M+H-CH_3-H_2O-CO]^+$
15	257.04	7.3	1.02	$[M+H-CH_3OH-CO]^+$
16	273.04	13.0	1.00	$[M+H-C_2H_4O]^+$
17	273.04	13.0	1.00	$[M+H-CH_4-CO]^+$
18	274.05	6.3	0.71	$[M+H-CH_3-CO]^+$
19	285.04	11.0	1.06	$[M+H-CH_3OH]^+$
20	301.03	2.9	0.64	$[M+H-CH_4]^+$
21	302.04	5.6	0.88	$[M+H-CH_3]^+$

# isorhamnetin.HCD.100eV



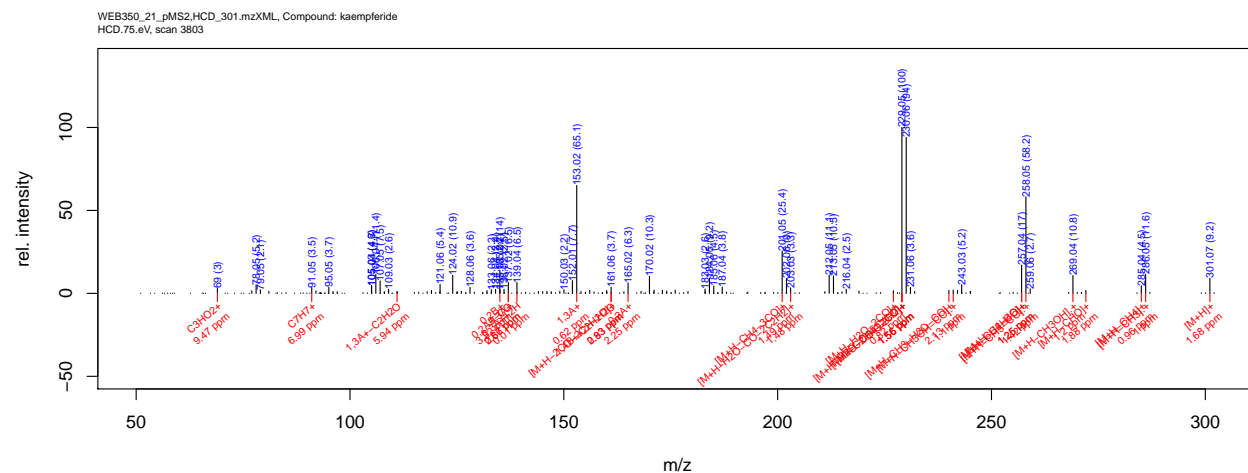
	mz	int	ppm	fragment
1	69.00	8.2	9.91	C3HO2+
2	89.04	1.9	7.90	C7H5+
3	111.01	5.7	4.98	1,3A+-C2H2O
4	137.02	13.0	2.19	0,2A+-CO
5	137.02	13.0	0.00	0,3A+
6	151.04	1.2	4.15	0,2B+
7	153.02	100.0	0.22	1,3A+
8	159.04	2.5	0.64	1,4B++2H
9	163.04	5.3	2.44	1,3B+-2H
10	165.02	1.0	2.16	0,2A+
11	217.05	56.0	2.06	[M+H-CH4-3CO]+
12	219.03	13.3	1.64	[M+H-H2O-CO-2C2H2]+
13	245.04	34.3	1.94	[M+h-C2H4O-CO]+
14	245.04	34.3	1.94	[M+H-CH4-2CO]+
15	245.04	34.3	1.94	[M+H-H2O-CO-C2H2]+
16	257.04	1.6	1.49	[M+H-CH3OH-CO].+
17	273.04	1.9	2.79	[M+H-C2H4O]+
18	273.04	1.9	2.79	[M+H-CH4-CO]+
19	285.04	3.0	0.85	[M+H-CH3OH].+

# kaempferide.CID.45eV



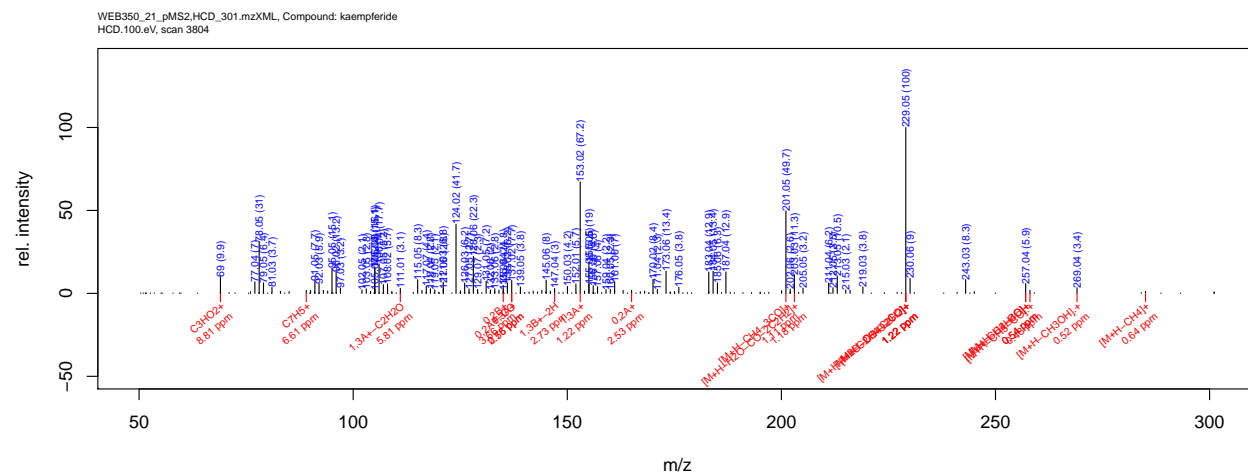
	mz	int	ppm	fragment
1	111.04	1.3	0.29	0,4A++2H
2	135.04	18.4	4.22	0,2B+
3	137.02	4.0	3.75	0,2A+-CO
4	137.02	4.0	1.56	0,3A+
5	139.04	100.0	1.11	0,3A++2H
6	153.02	28.2	1.92	1,3A+
7	161.06	13.4	2.25	1,4B++2H-H2O
8	161.06	13.4	1.50	[M+H-2CO-2C2H2O]+
9	165.02	31.0	3.27	0,2A+
10	217.05	2.2	0.80	[M+H-2C2H2O]+
11	227.07	2.3	0.35	[M+H-H2O-2CO]+
12	241.05	15.6	0.40	[M+H-CH3OH-CO].+
13	245.08	16.7	0.60	[M+H-2CO]+
14	255.07	3.1	0.90	[M+H-H2O-CO]+
15	257.04	2.9	0.42	[M+H-C2H4O]+
16	257.04	2.9	0.42	[M+H-CH4-CO]+
17	258.05	9.2	0.71	[M+H-CH3-CO].+
18	269.04	10.7	0.52	[M+H-CH3OH].+
19	272.07	20.1	0.31	[M+H-CHO]+
20	273.08	2.7	0.20	[M+H-CO]+
21	283.06	2.1	0.47	[M+H-H2O]+
22	285.04	2.0	2.03	[M+H-CH4]+
23	286.05	61.7	0.36	[M+H-CH3].+

# kaempferide.HCD.75eV



	mz	int	ppm	fragment
1	69.00	3.0	9.47	$C_3HO_2^+$
2	91.05	3.5	6.99	$C_7H_7^+$
3	111.01	1.2	5.94	$1,3A^+-C_2H_2O$
4	135.04	14.0	3.32	$0,2B^+$
5	137.02	6.5	2.86	$0,2A^+-CO$
6	137.02	6.5	0.67	$0,3A^+$
7	139.04	6.5	0.01	$0,3A^++2H$
8	153.02	65.1	0.62	$1,3A^+$
9	161.06	3.7	0.93	$1,4B^++2H-H_2O$
10	161.06	3.7	2.83	$[M+H-2CO-2C_2H_2O]^+$
11	165.02	6.3	2.25	$0,2A^+$
12	201.05	25.4	1.49	$[M+H-CH_4-3CO]^+$
13	203.03	3.3	1.48	$[M+H-H_2O-CO-2C_2H_2]^+$
14	227.07	1.6	0.82	$[M+H-H_2O-2CO]^+$
15	229.05	100.0	1.56	$[M+h-C_2H_4O-CO]^+$
16	229.05	100.0	1.56	$[M+H-CH_4-2CO]^+$
17	229.05	100.0	1.56	$[M+H-H_2O-CO-C_2H_2]^+$
18	240.04	1.8	2.13	$[M+H-CH_3-H_2O-CO]^+$
19	241.05	2.0	1.10	$[M+H-CH_3OH-CO]^+$
20	257.04	17.0	1.25	$[M+H-C_2H_4O]^+$
21	257.04	17.0	1.25	$[M+H-CH_4-CO]^+$
22	258.05	58.2	1.42	$[M+H-CH_3-CO]^+$
23	269.04	10.8	1.20	$[M+H-CH_3OH]^+$
24	272.07	1.8	1.88	$[M+H-CHO]^+$
25	285.04	4.5	0.96	$[M+H-CH_4]^+$
26	286.05	11.6	1.00	$[M+H-CH_3]^+$
27	301.07	9.2	1.68	$[M+H]^+$

# kaempferide.HCD.100eV



	mz	int	ppm	fragment
1	69.00	9.9	8.81	$C_3HO_2^+$
2	89.04	1.8	6.61	$C_7H_5^+$
3	111.01	3.1	5.81	$1,3A^+-C_2H_2O$
4	135.04	4.8	3.66	$0,2B^+$
5	137.02	7.7	2.75	$0,2A^+-CO$
6	137.02	7.7	0.56	$0,3A^+$
7	147.04	3.0	2.73	$1,3B^+-2H$
8	153.02	67.2	1.22	$1,3A^+$
9	165.02	1.9	2.53	$0,2A^+$
10	201.05	49.7	1.11	$[M+H-CH_4-3CO]^+$
11	203.03	11.3	1.18	$[M+H-H_2O-CO-2C_2H_2]^+$
12	229.05	100.0	1.22	$[M+h-C_2H_4O-CO]^+$
13	229.05	100.0	1.22	$[M+H-CH_4-2CO]^+$
14	229.05	100.0	1.22	$[M+H-H_2O-CO-C_2H_2]^+$
15	257.04	5.9	0.54	$[M+H-C_2H_4O]^+$
16	257.04	5.9	0.54	$[M+H-CH_4-CO]^+$
17	258.05	1.8	0.48	$[M+H-CH_3-CO]^+$
18	269.04	3.4	0.52	$[M+H-CH_3OH]^+$
19	285.04	1.2	0.64	$[M+H-CH_4]^+$