

Supporting information

Switchable alkene epoxidation/oxidative cleavage with hydrogen peroxide- NaHCO_3 : efficient heterogeneous catalysis derived from biosourced Eco-Mn[®]

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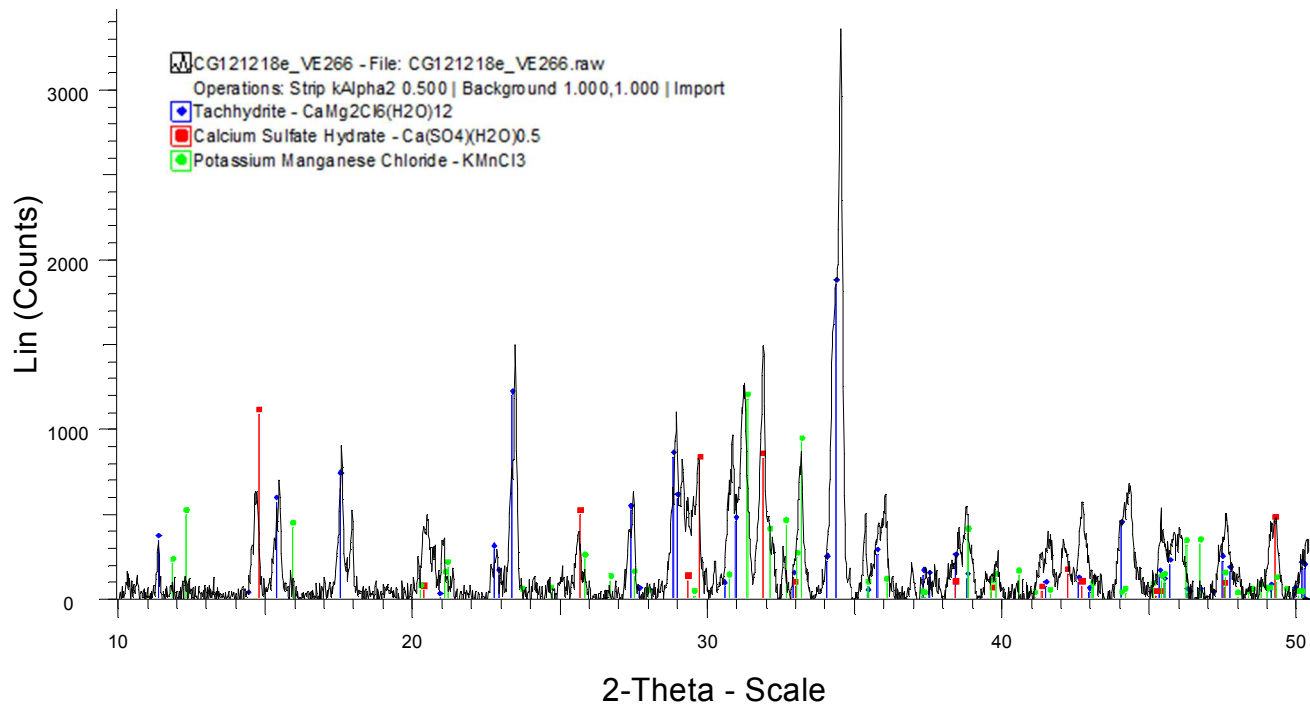


Figure S1. X-ray diffraction (XRD) spectrum of Eco-Mn[®]

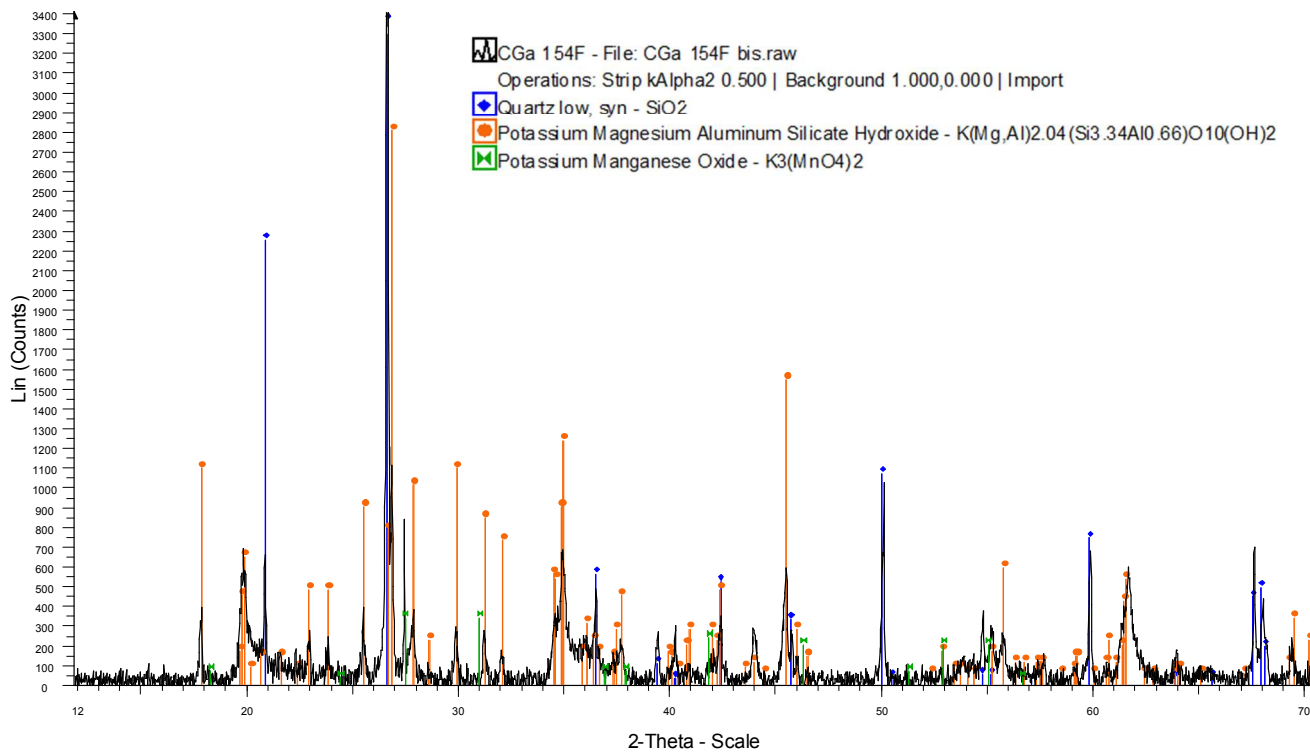


Figure S2. X-ray diffraction (XRD) spectrum of supported Eco-Mn[®]

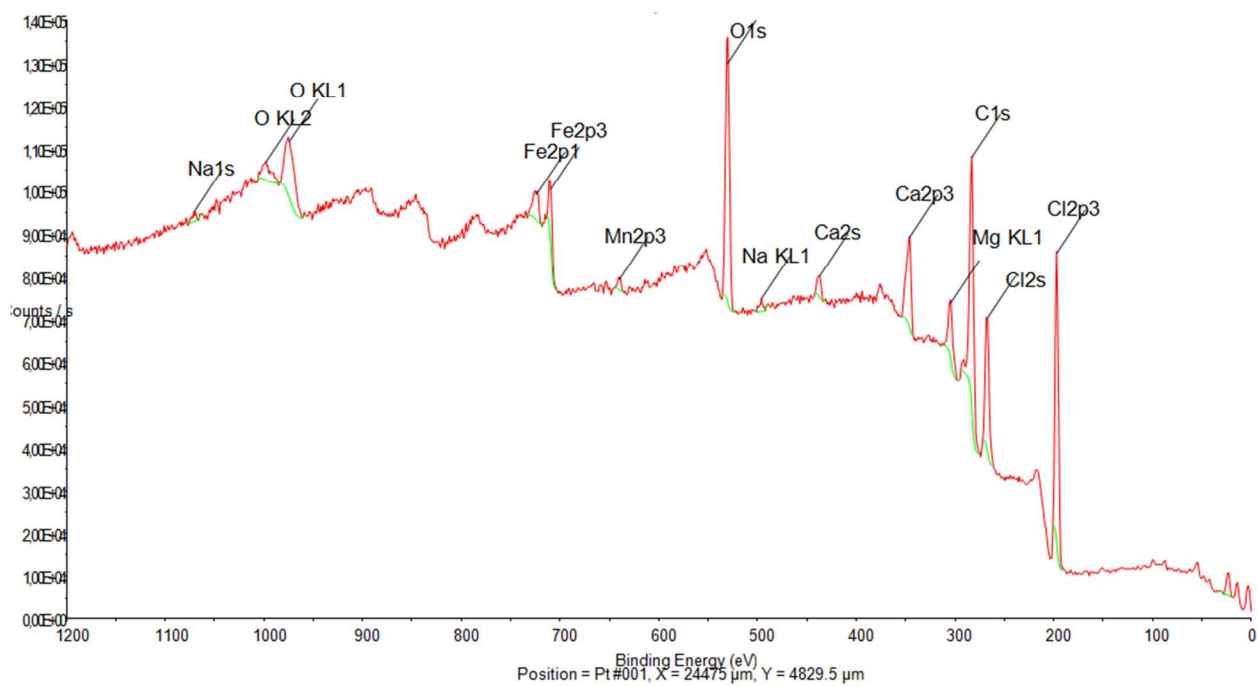
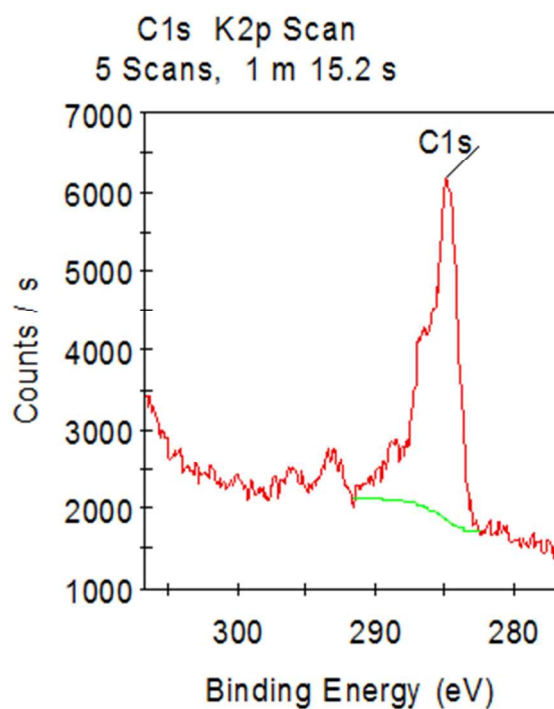


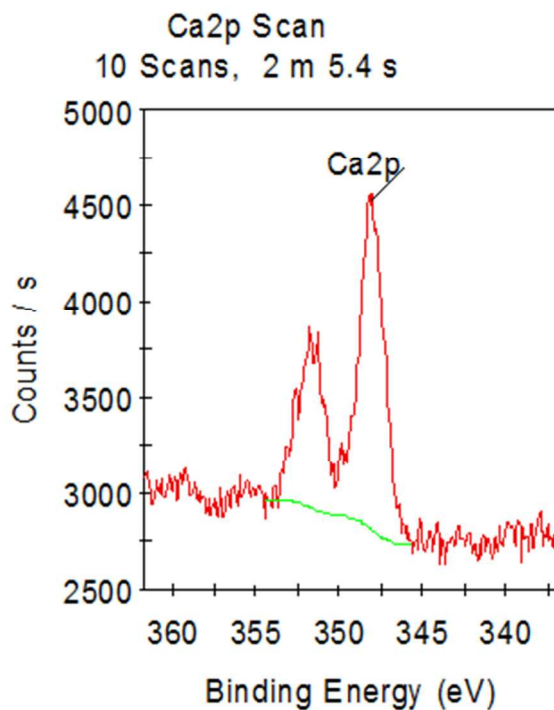
Figure S3. XPS analysis of Eco-Mn[®] (wide scan)

Signals proportions are not to be taken into account, as XPS analysis is not representative of the homogeneity of the sample. See ICP-MS analysis for quantification of the elements.



Position = Pt #001, X = 24475 μm , Y = 4829.5

Figure S4. XPS analysis of Eco-Mn[®] (C1s)



Position = Pt #001, X = 24475 μm , Y = 4829.5

Figure S5. XPS analysis of Eco-Mn[®] (Ca 2p)

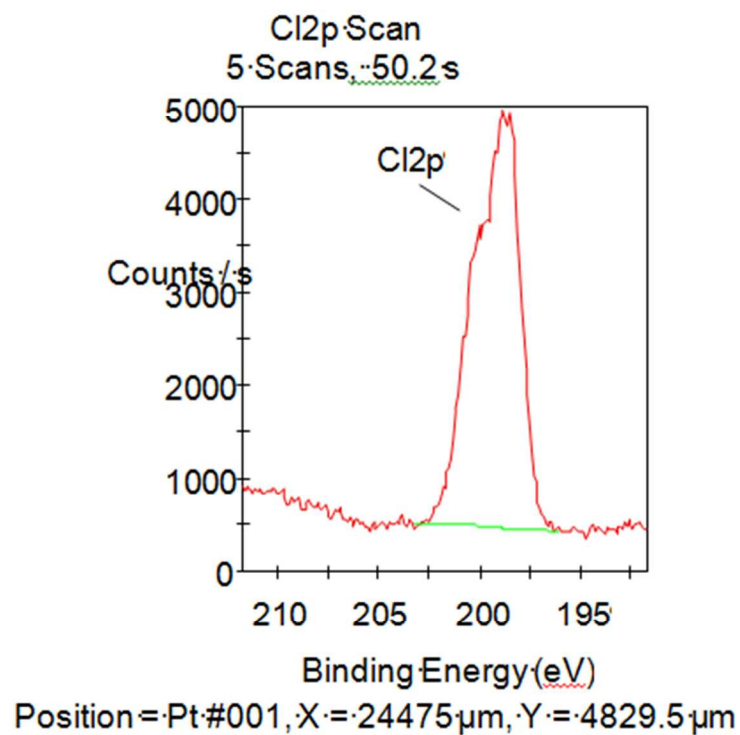


Figure S6. XPS analysis of Eco-Mn[®] (Cl 2p)

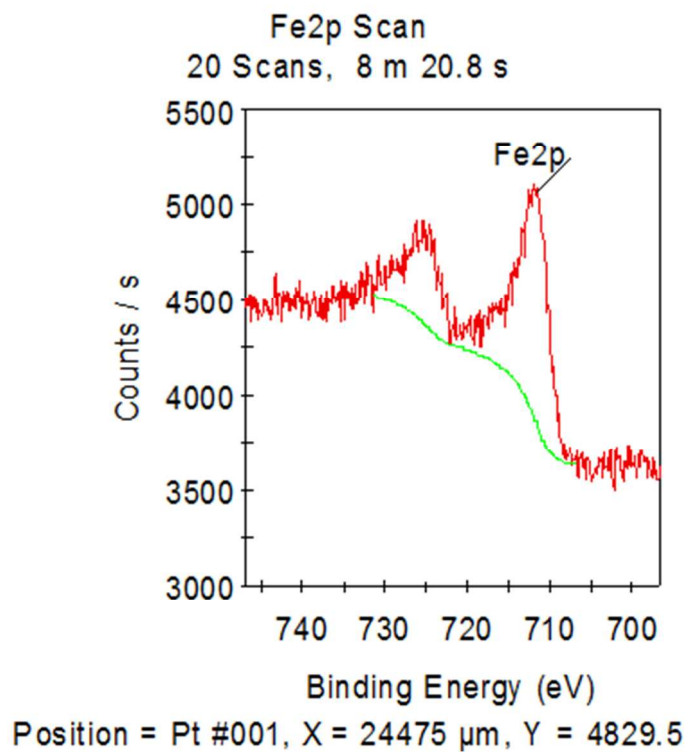


Figure S7. XPS analysis of Eco-Mn[®] (Fe 2p)

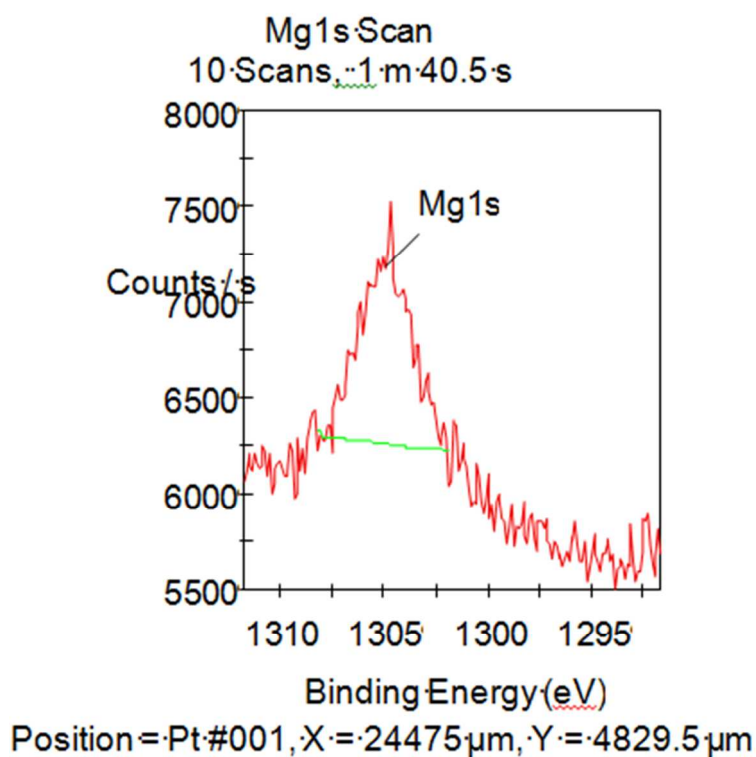


Figure S8. XPS analysis of Eco-Mn[®] (Mg 1s)

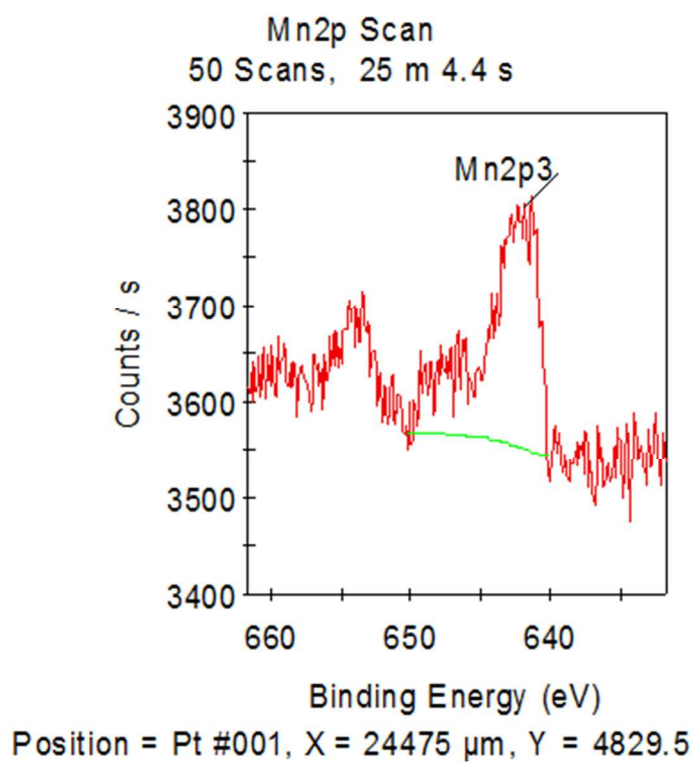


Figure S9. XPS analysis of Eco-Mn[®] (Mn 2p)

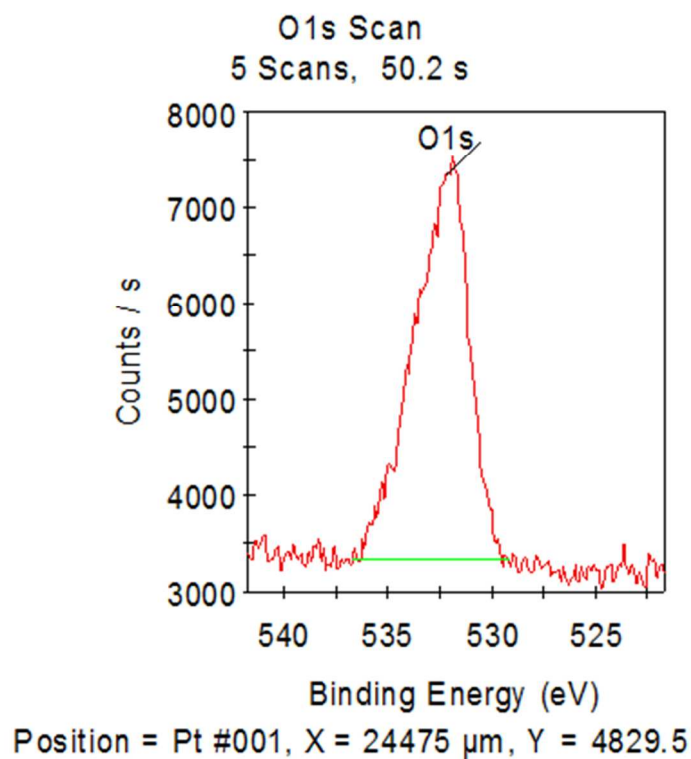
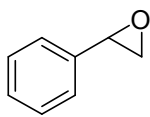


Figure S10. XPS analysis of Eco-Mn[®] (O 1s)

Metal composition	Mg wt% (\pm sd)	Ca wt% (\pm sd)	Al wt% (\pm sd)	Mn wt% (\pm sd)	Fe wt% (\pm sd)	Ni wt% (\pm sd)
<i>Grevillea exul</i> subsp. <i>rubiginosa</i> (dry shoots)	0.24 (\pm 0.0013)	0.24 (\pm 0.0030)	0.017 (\pm 0.00014)	0.40 (\pm 0.0028)	0.049 (\pm 0.00079)	0.011 (\pm 0.000077)
Eco-Mn [®] derived from <i>Grevillea exul</i> subsp. <i>rubiginosa</i>	5.26 (\pm 0.086)	10.44 (\pm 0.17)	0.24 (\pm 0.015)	6.72 (\pm 0.037)	0.90 (\pm 0.0075)	0.040 (\pm 0.00039)

Table S1. ICP-MS analysis



2a

Event#1: Scan Ret. Time: [14.193] Scan#: [1755] Ret. Index: 1079

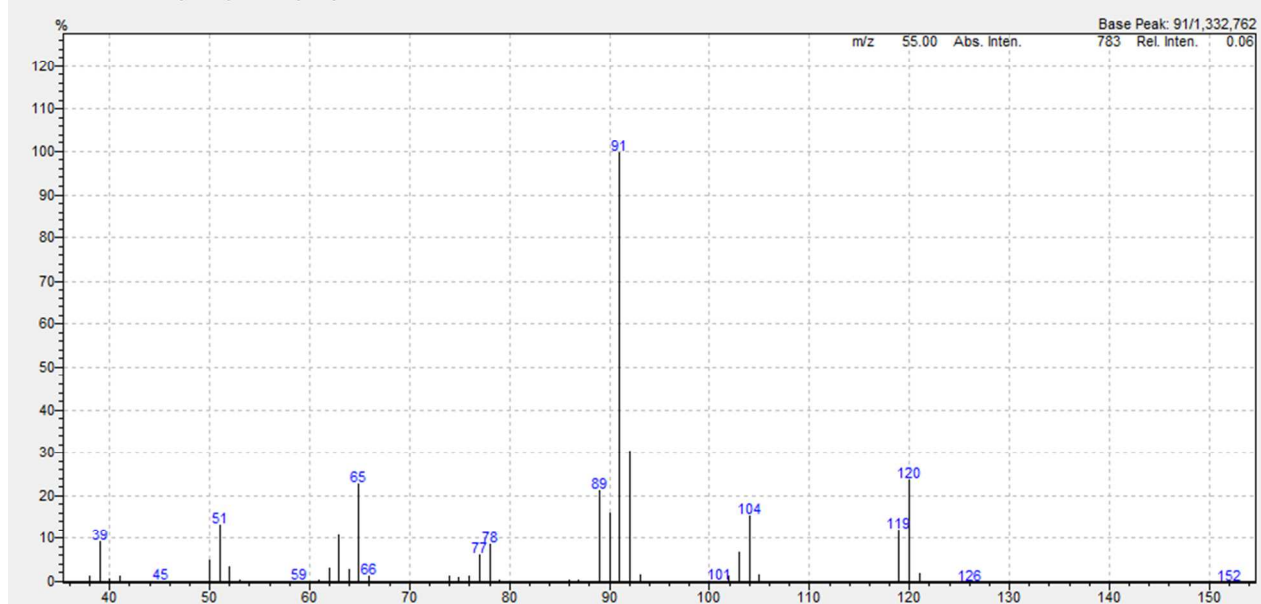
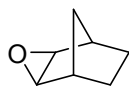


Figure S11. MS spectrum for compound **2a**



2b

Event#1: Scan Ret. Time: [10.083] Scan#: [911] Ret. Index: 980

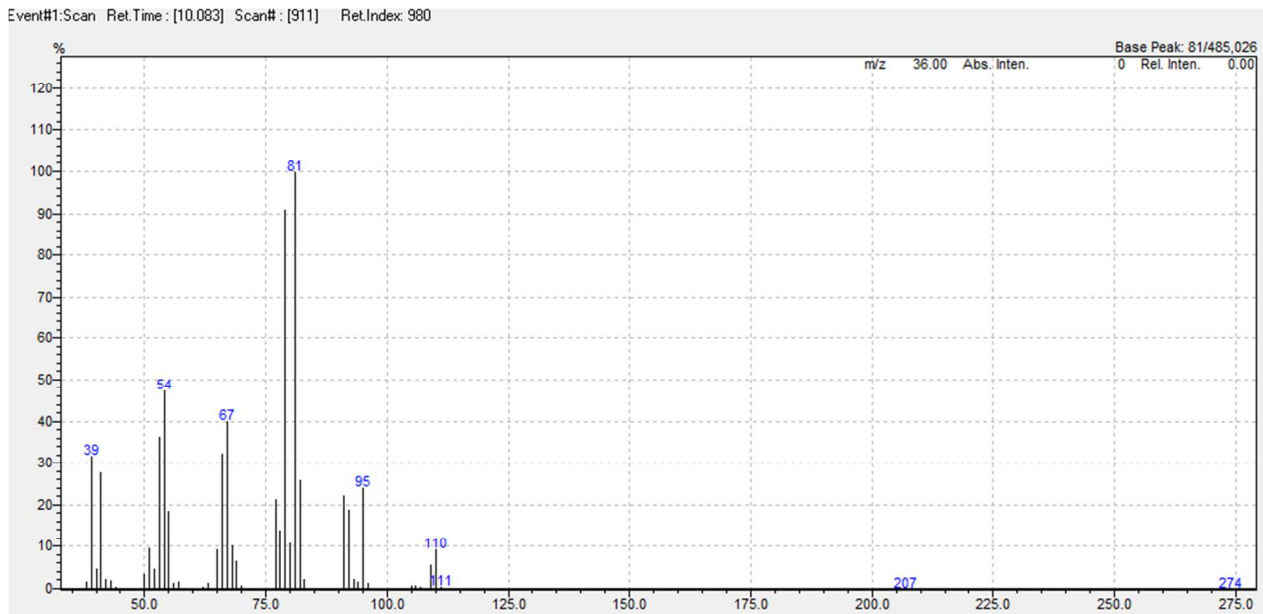
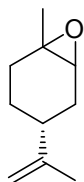


Figure S12. MS spectrum for compound **2b**



2c

Event#1:Scan Ret.Time: [16.408] Scan#: [1670] Ret.Index: 1131

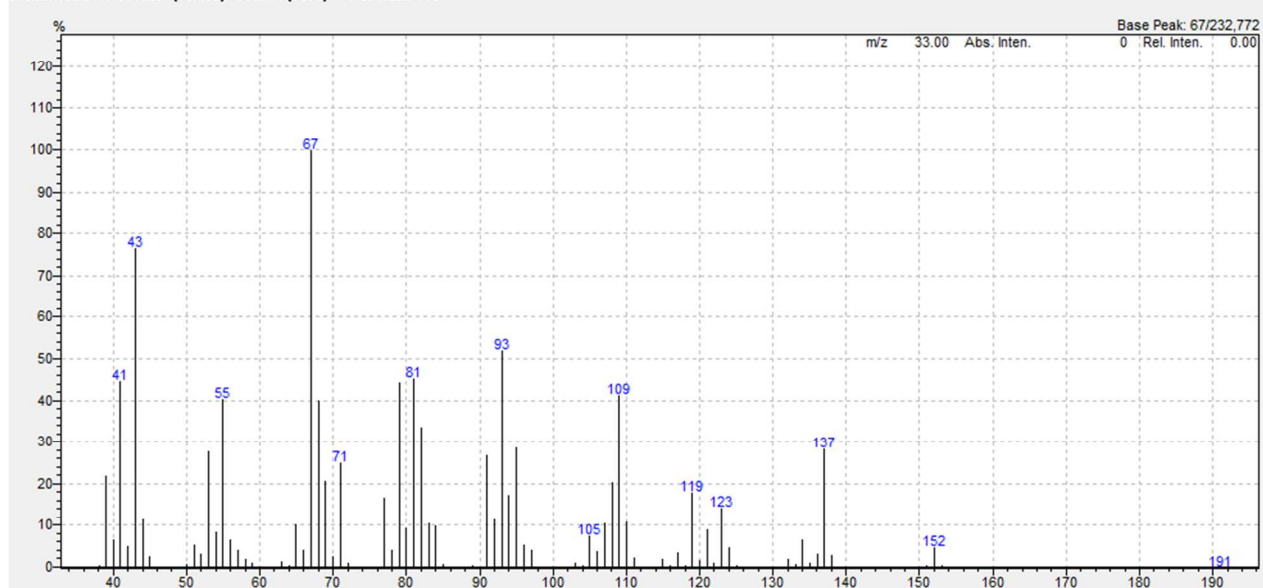
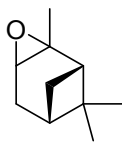


Figure S13. MS spectrum for compound **2c**



2d

Event#1:Scan Ret.Time:[15.292] Scan#:[1536] Ret.Index:1105

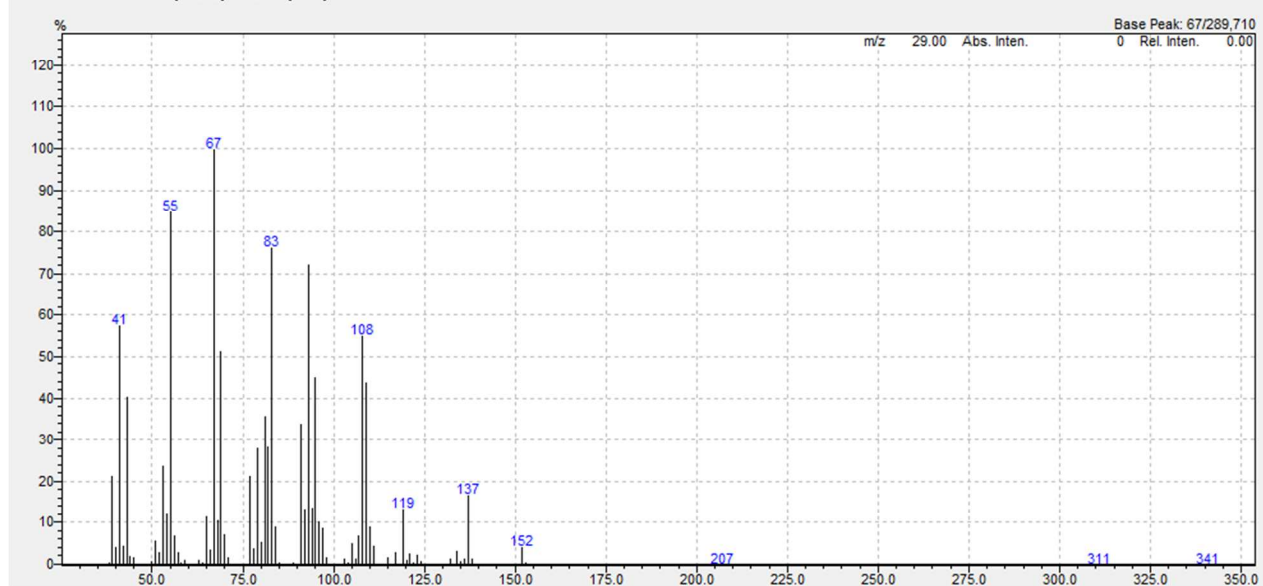
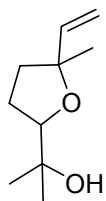


Figure S14. MS spectrum for compound **2d**



2e

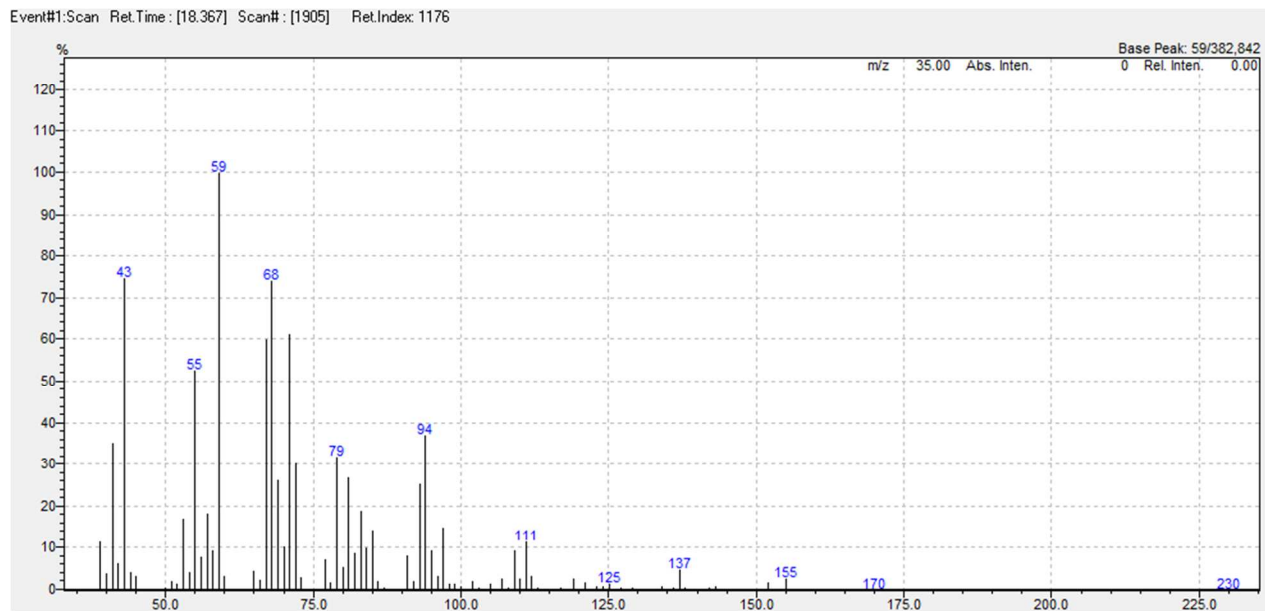
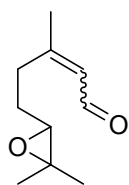


Figure S15. MS spectrum for compound **2e**



2f

Event#1:Scan Ret.Time: [21.708] Scan#: [2306] Ret.Index: 1252

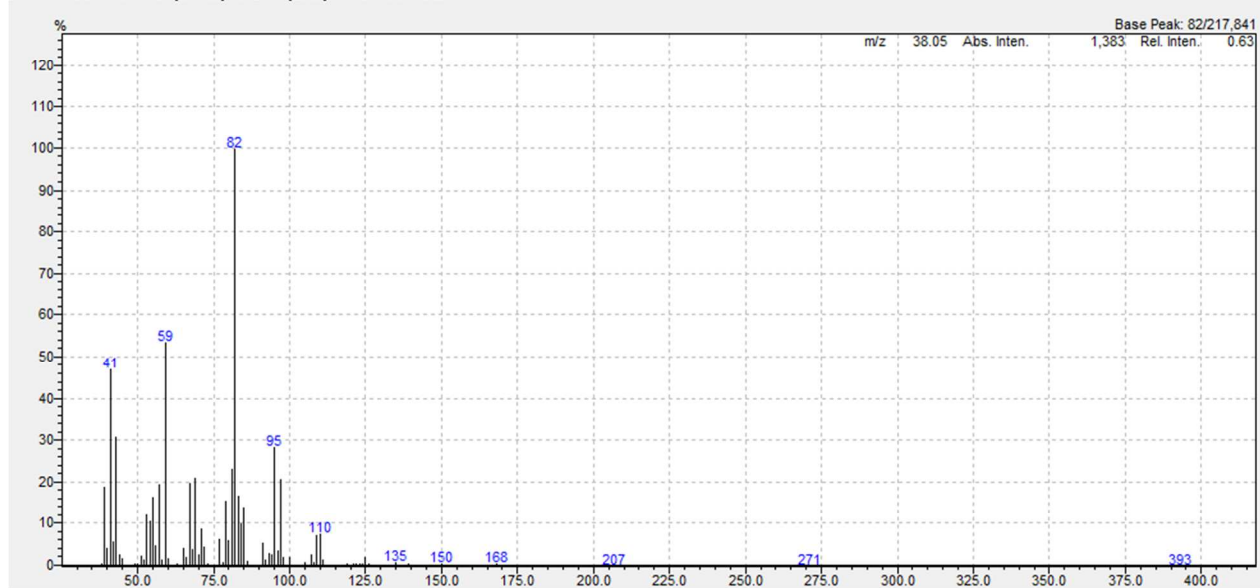
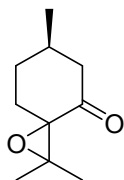


Figure S16. MS spectrum for compound **2f**



2g

Event#1: Scan Ret. Time : [20.358] Scan# : [2144] Ret. Index: 1221

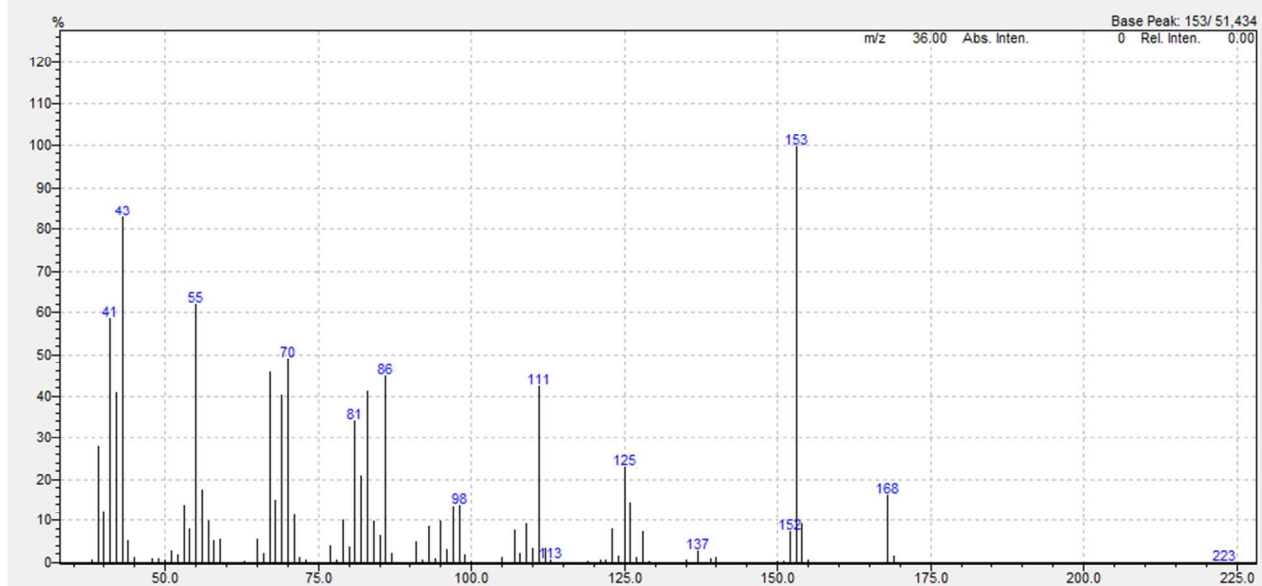
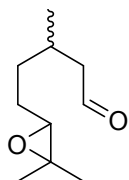


Figure S17. MS spectrum for compound **2g**



2h

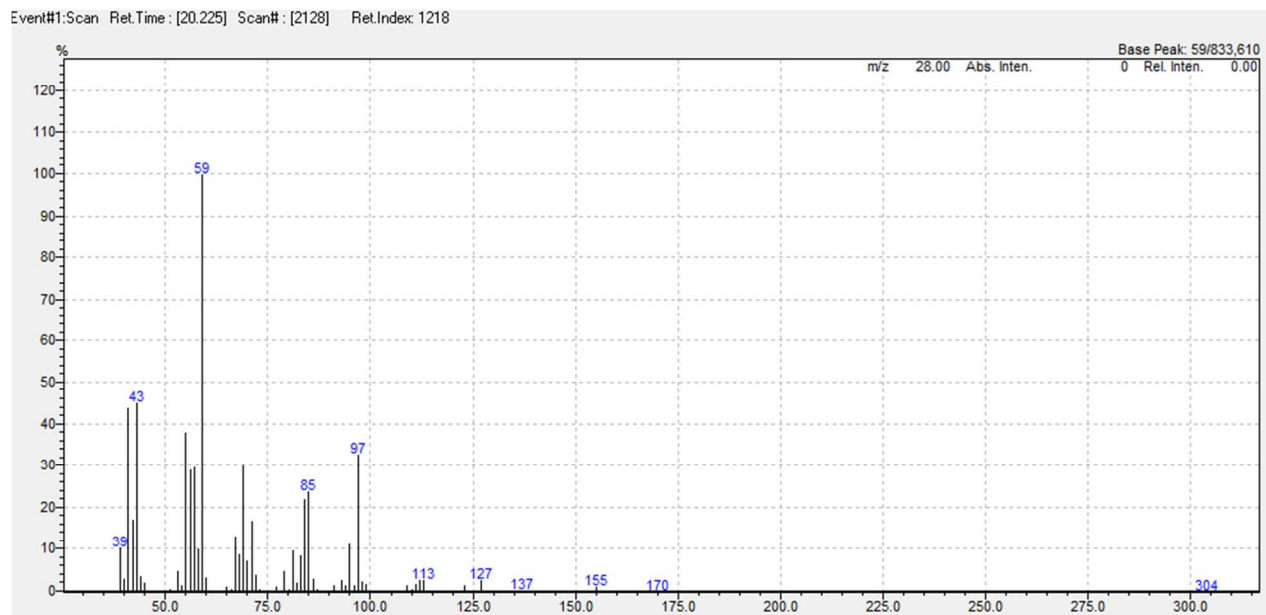
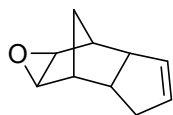


Figure S18. MS spectrum for compound **2h**



2i

Event#1:Scan Ret.Time: [20.567] Scan#: [2169] Ret.Index: 1226

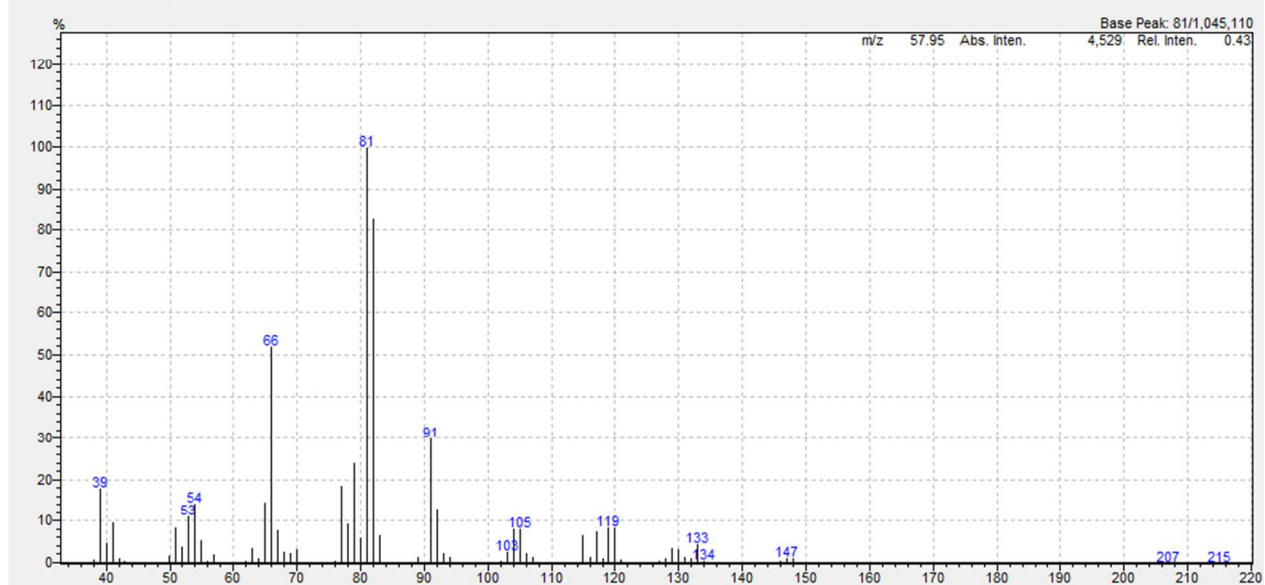
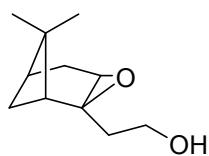


Figure S19. MS spectrum for compound **2i**



2j

Event#1: Scan Ret.Time: [22.917] Scan#: [2451] Ret.Index: 1279

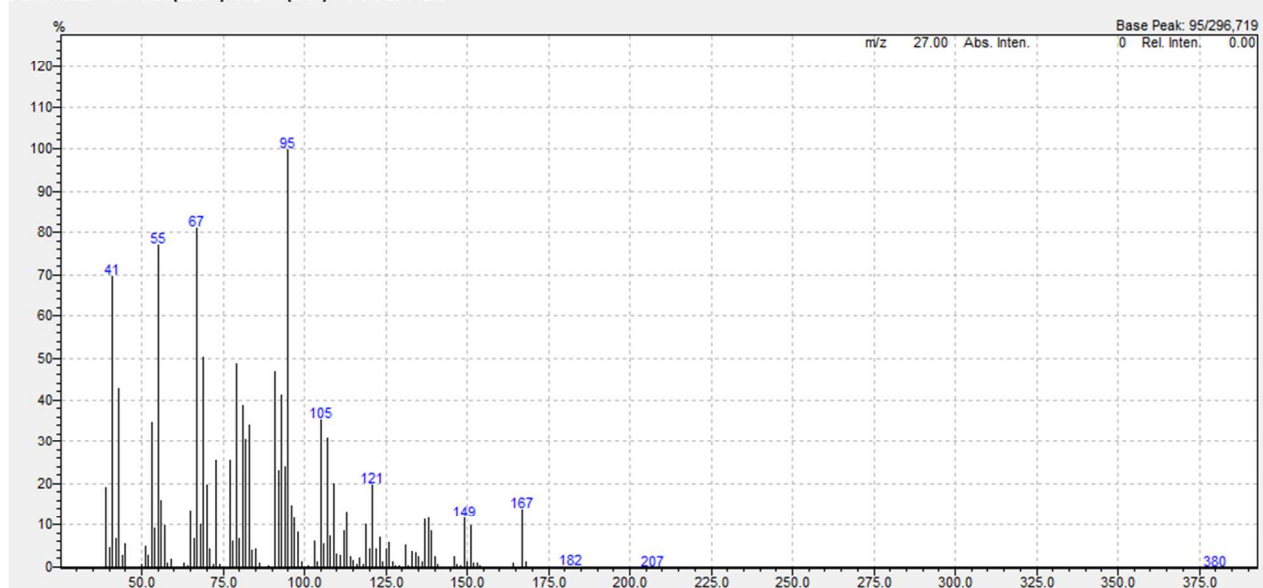
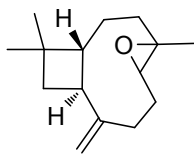


Figure S20. MS spectrum for compound **2j**



2k

Event#1: Scan Ret. Time: [24.300] Scan#: [2617] Ret. Index: 1311

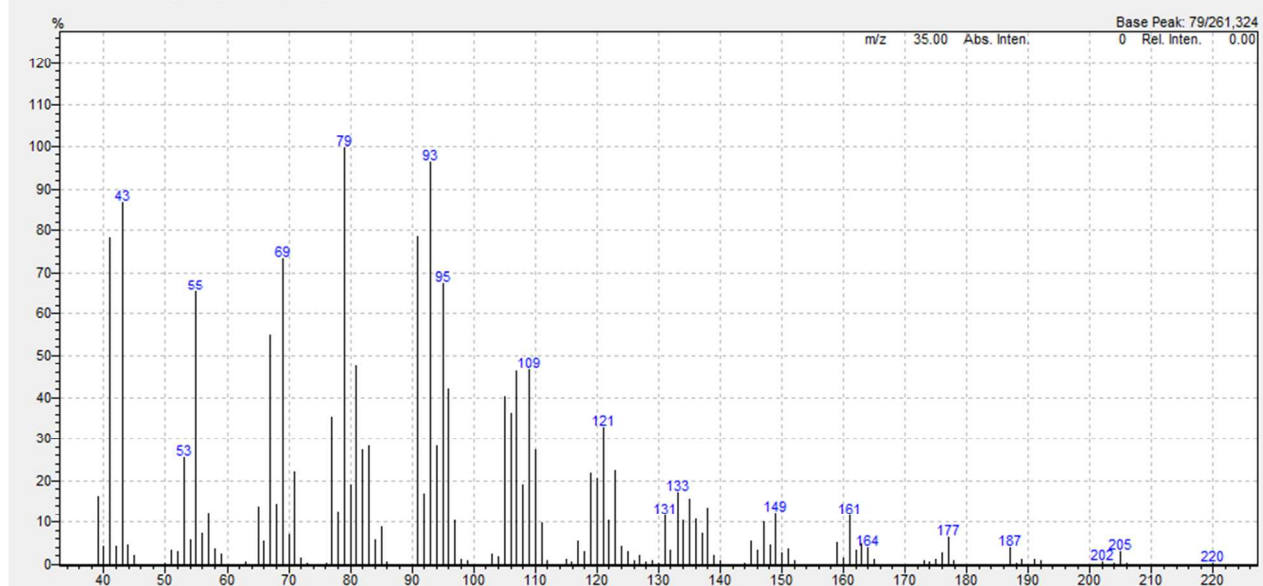
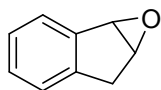


Figure S21. MS spectrum for compound **2k**



2m

Event#1: Scan Ret. Time : [9.942] Scan# : [894] Ret. Index: 976

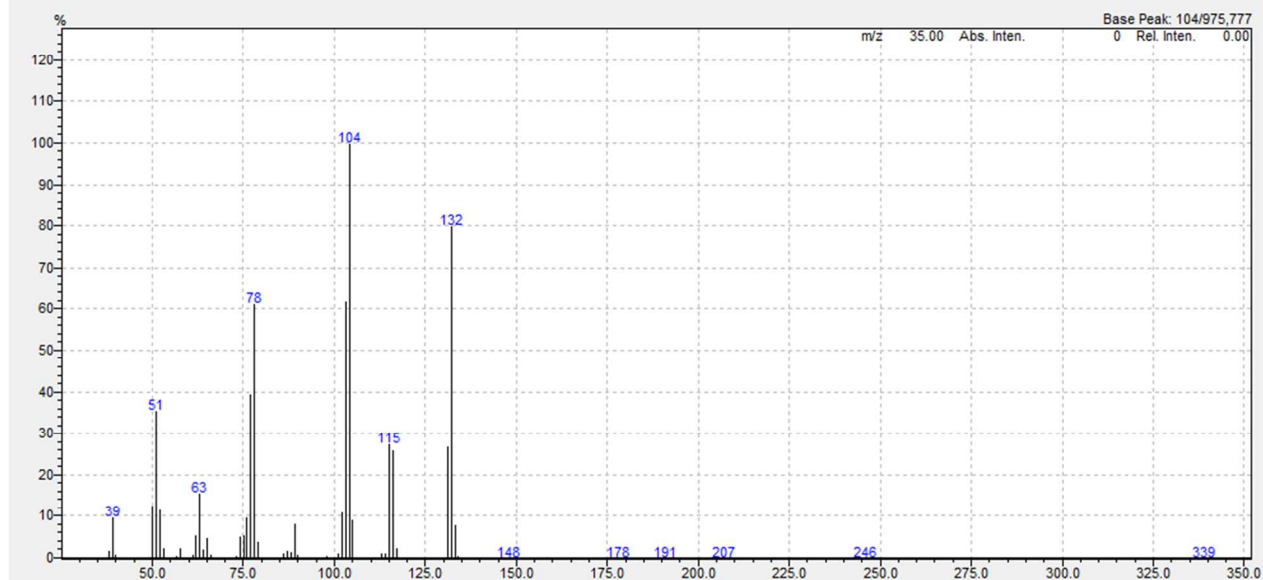
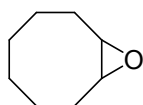


Figure S22. MS spectrum for compound **2m**



2n

Event#1: Scan Ret. Time : [8.975] Scan#: [778] Ret. Index: 950

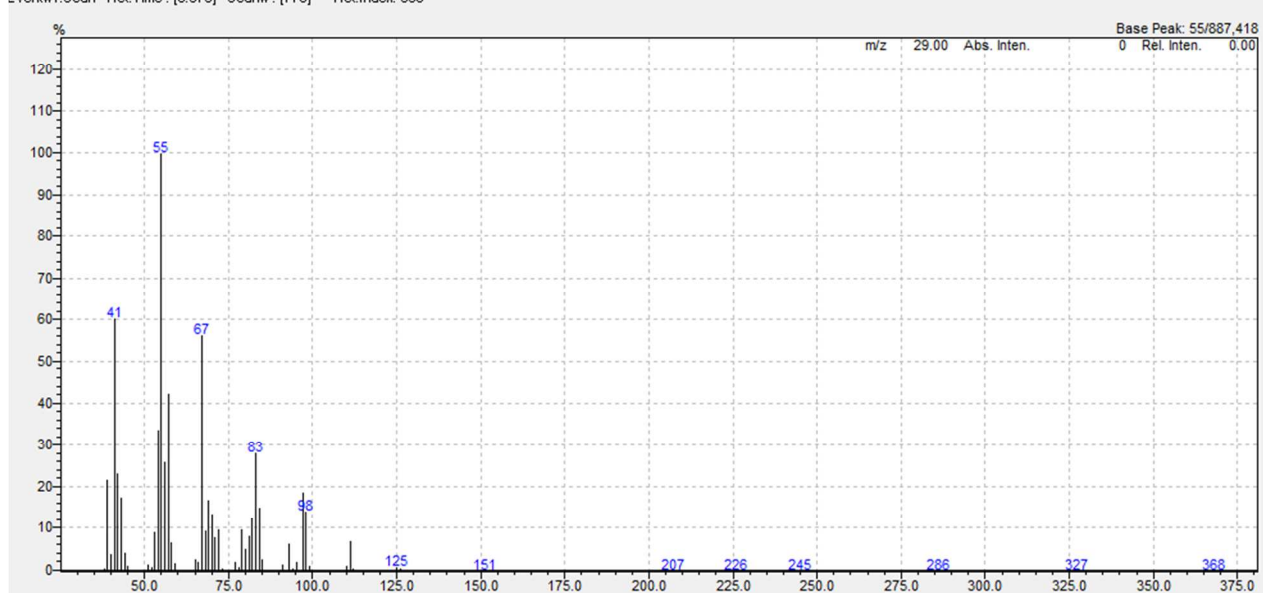
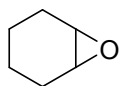


Figure S23. MS spectrum for compound **2n**



2o

Event#1: Scan Ret. Time : [6.017] Scan# : [423] Ret. Index: 861

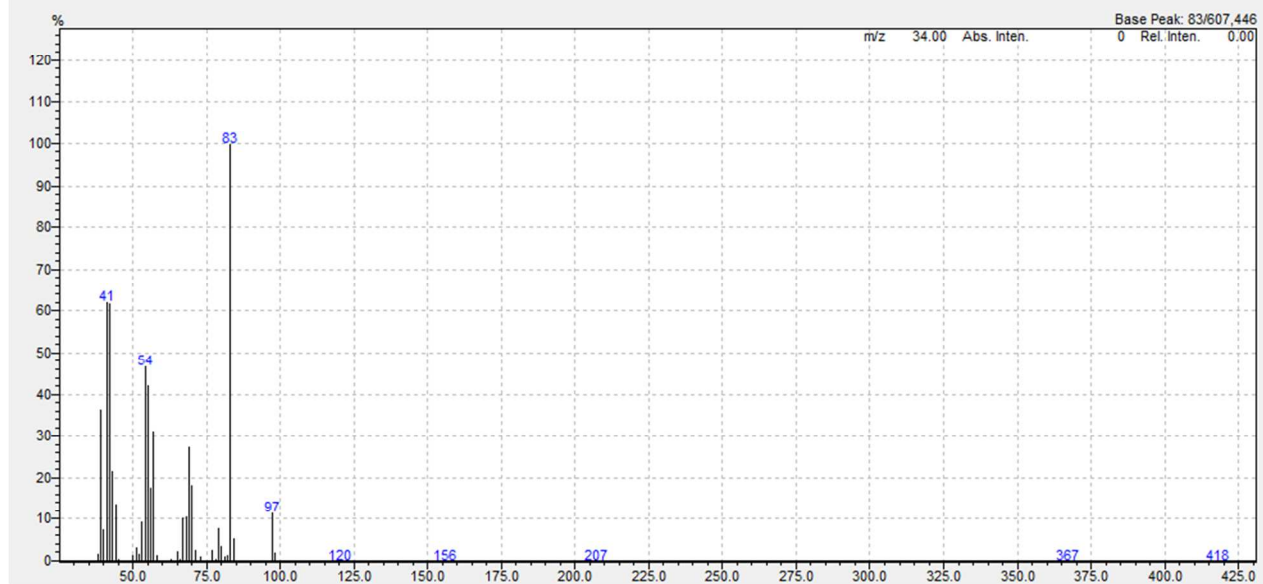
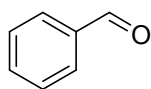


Figure S24. MS spectrum for compound **2o**



3a

Event#1: Scan Ret. Time : [9.567] Scan# : [429] Ret. Index: 966

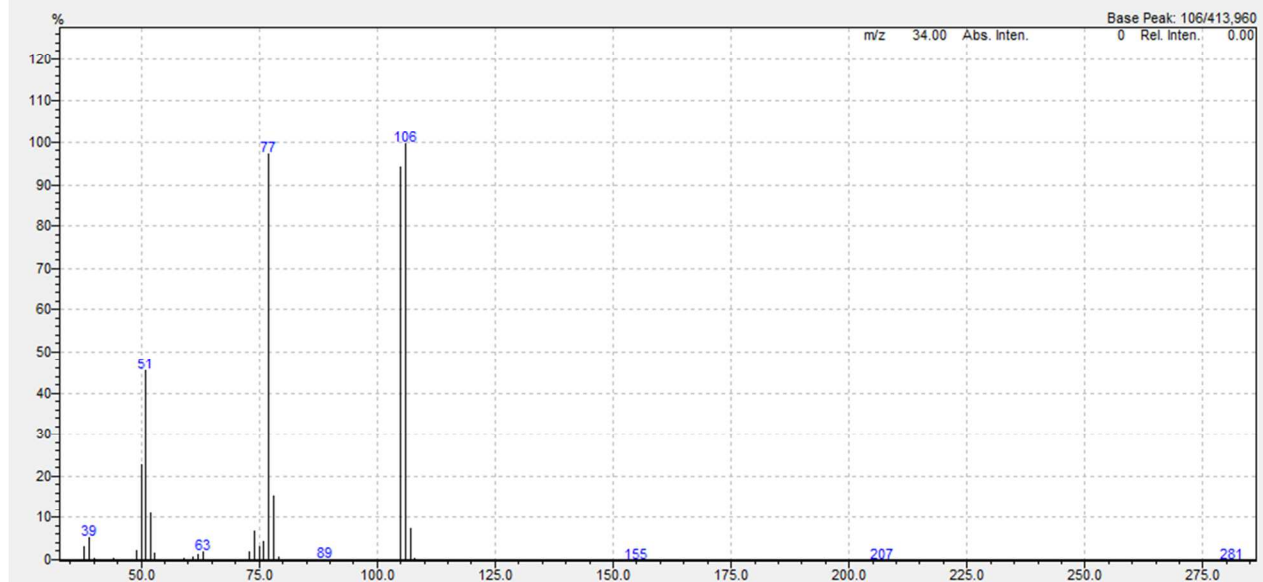
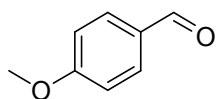


Figure S25. MS spectrum for compound **3a**



3b

Event#1: Scan Ret. Time : [11.458] Scan# : [1076] Ret. Index: 1014

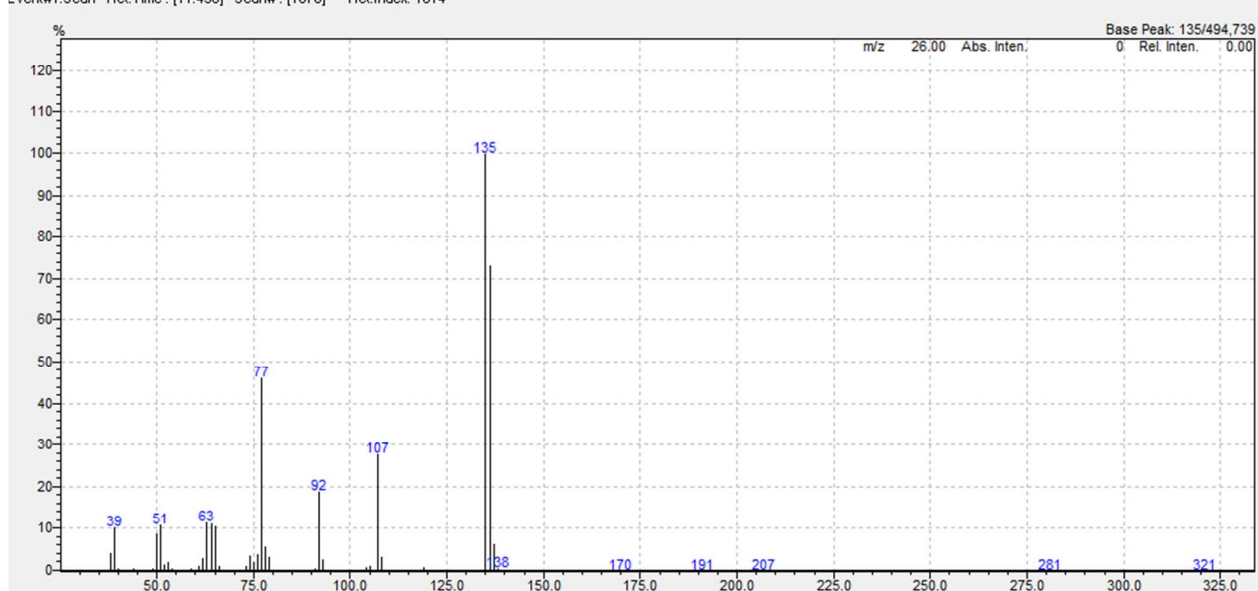
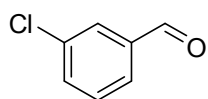


Figure S26. MS spectrum for compound **3b**



3c

Event#1: Scan Ret. Time: [8.417] Scan#: [1776]

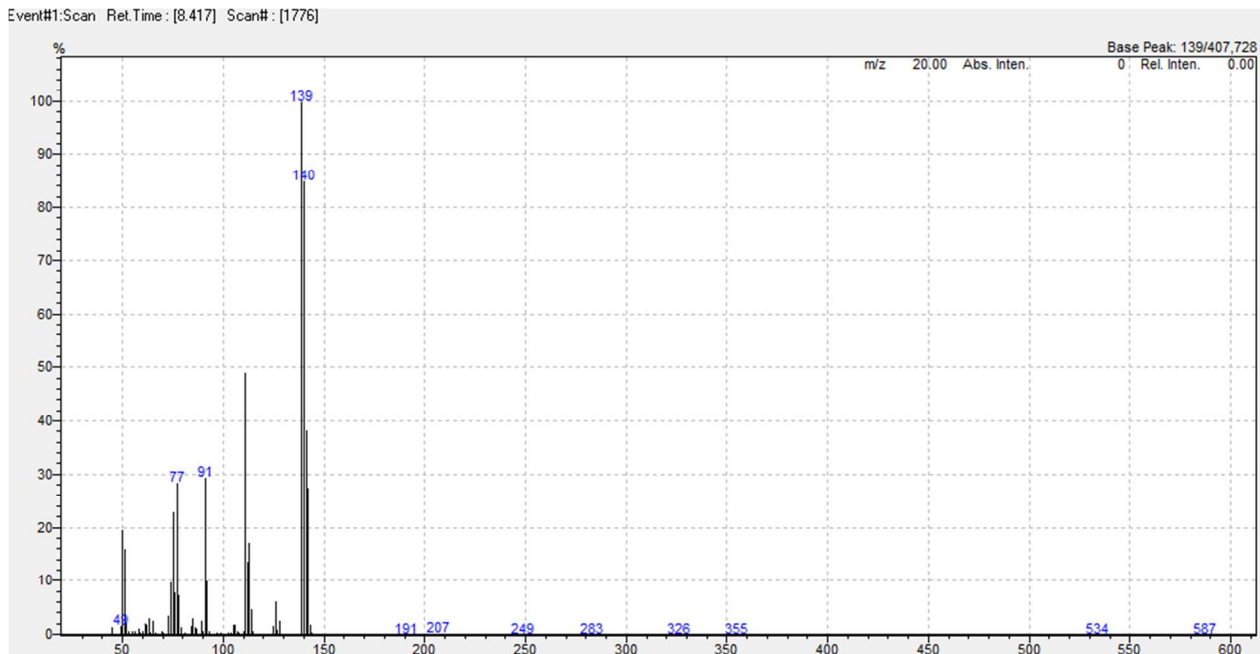


Figure S27. MS spectrum for compound **3c**