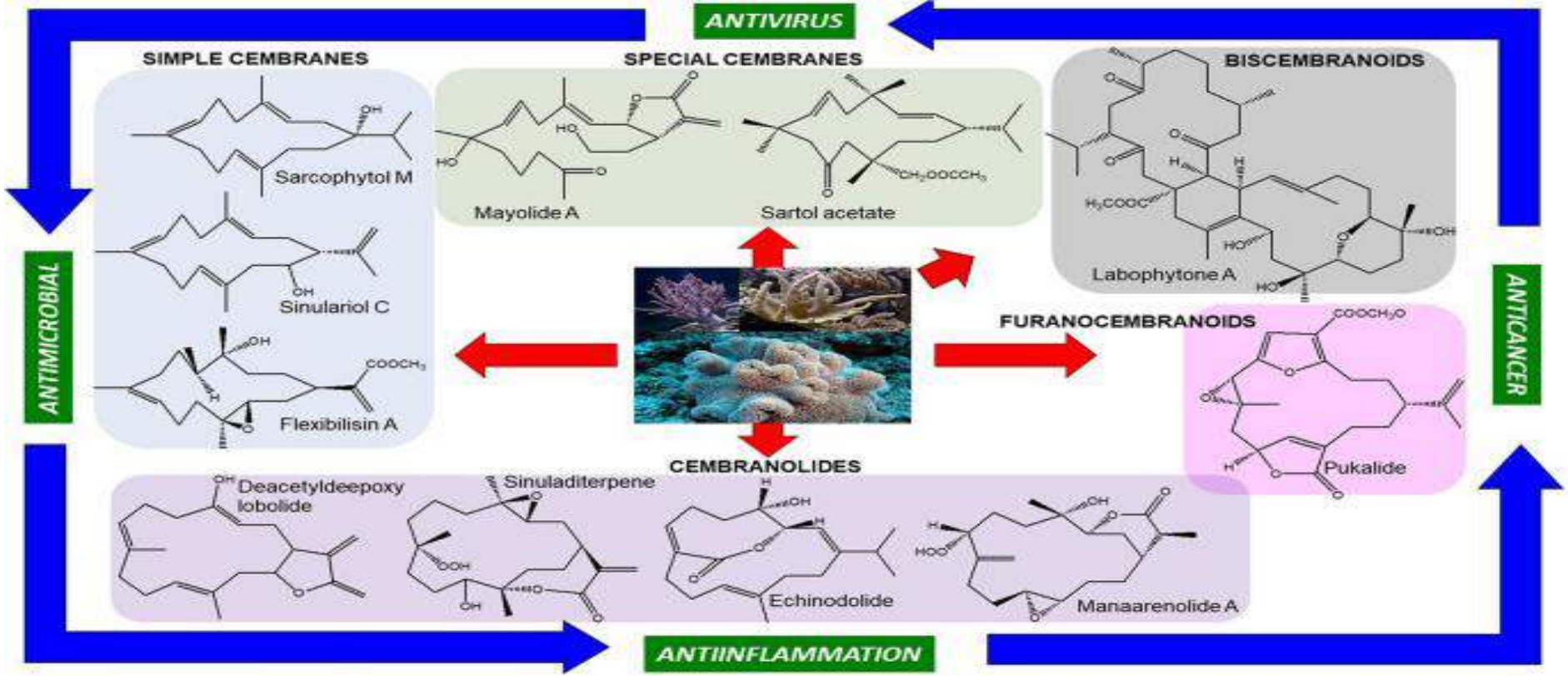
Cembranoid Diterpene from *Sarcophyton crasscaule*, a Softcoral of Timor Sea

Antonius R B Ola
Chemistry Department, Nusa Cendana University

Contents

Soft coral is one of the marine biota which is rich in bioactive compounds that have not been widely used.

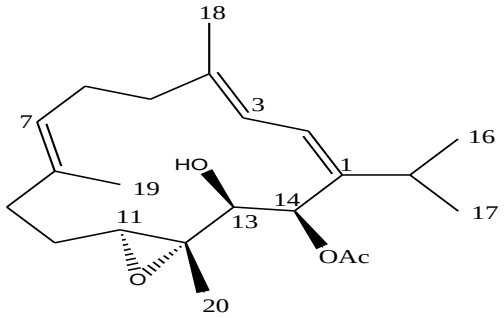


The main natural product isolated from soft corals is cembranoids, which act as chemical defense compounds against fish predators. Generally, these metabolites are obtained from the genera ***Sarcophyton***, *Sinularia*, *Lobophytum*, *Eunicea*, and *Clavularia*

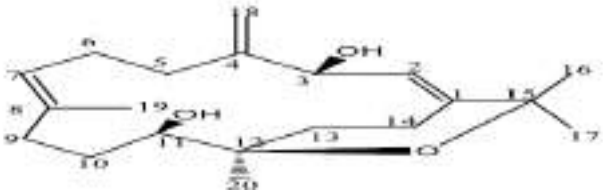
Sarcophyton crasscoule from Timor and Semau Islands

Fractionation of Softcoral

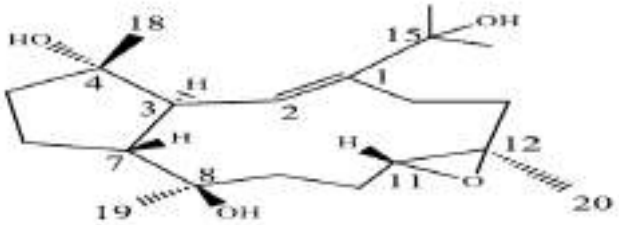
Cembranoid Diterpene from Semau Island



Flaccidoxide

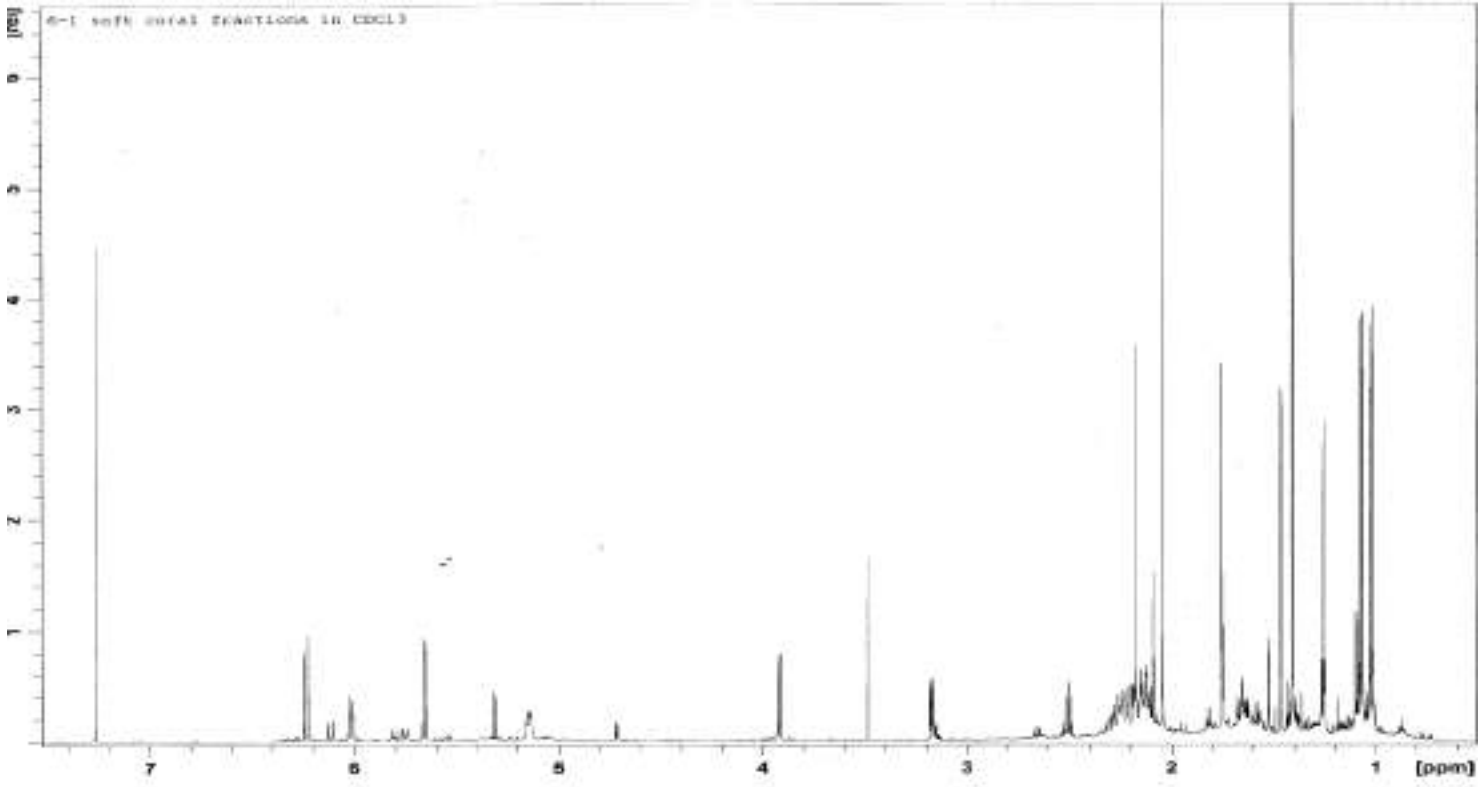


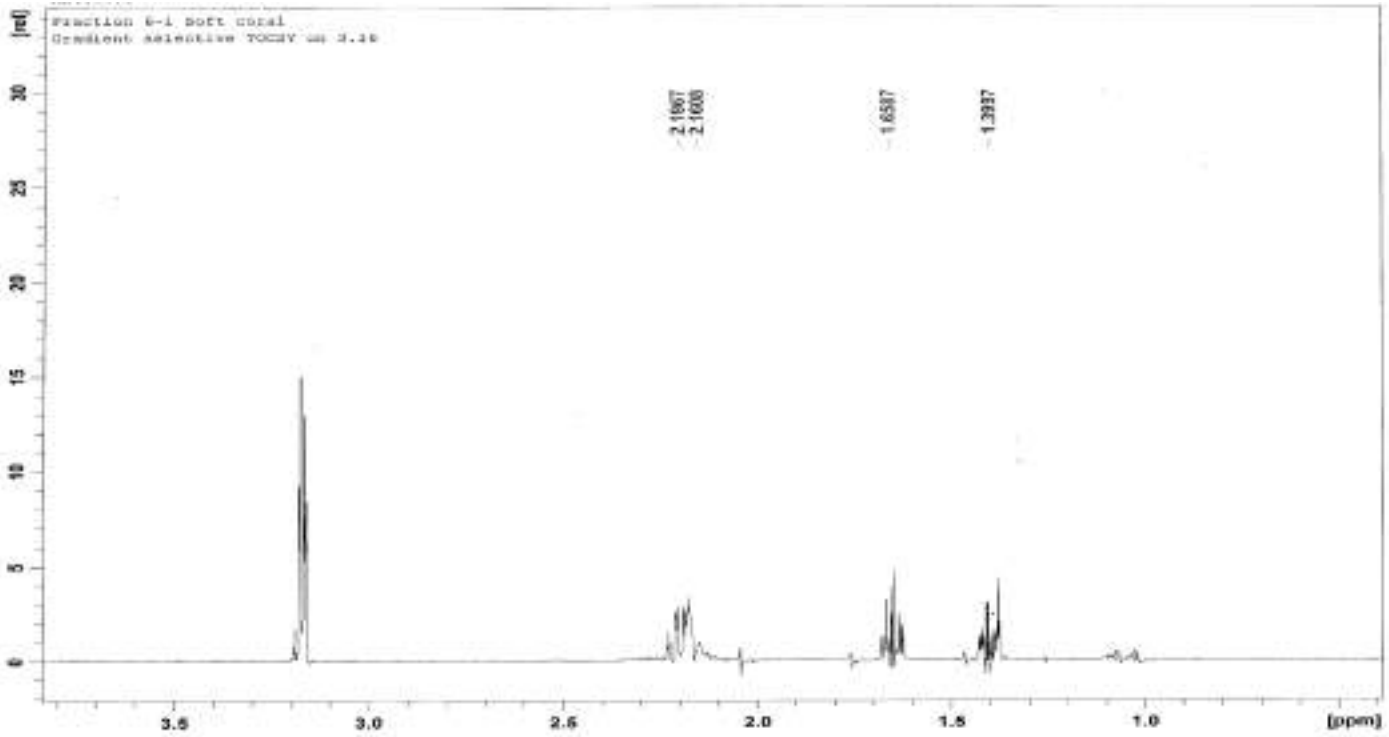
Sarcophtol S

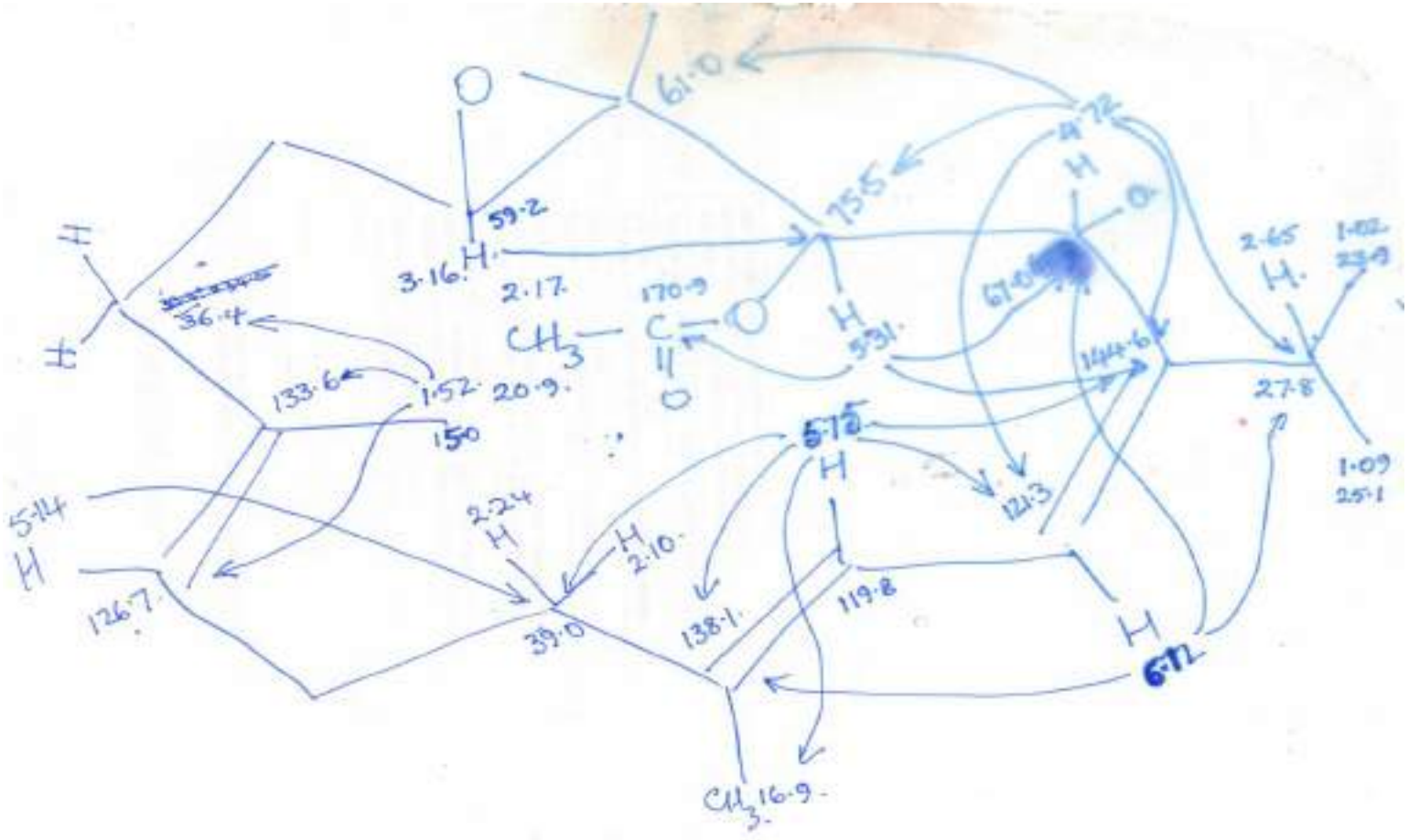


Sarcophtol A

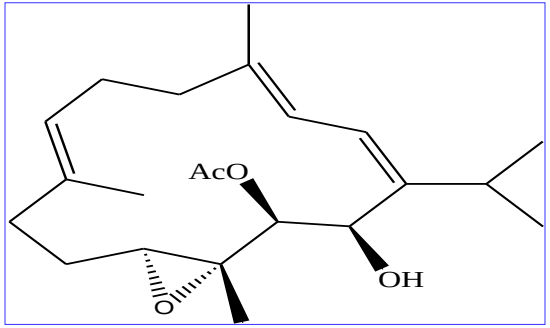
Novel Cembranoid Diterpene from Timor Island



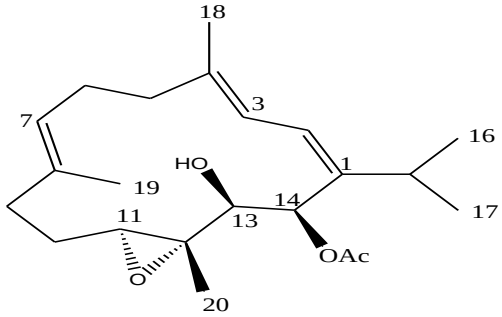

Fraction 6-1 soft coral
Gradient selective TOCSY on 3.15
2.1967
2.1600
1.6587
1.3937
[rel]
30
25
20
15
10
5
0
3.5
3.0
2.5
2.0
1.5
1.0
[ppm]


61.0
59.2
3.16
2.17
56.4
133.6
1.52
20.9
150
5.14
126.7
2.24
2.10
39.0
138.1
119.8
16.9
170.9
5.91
7.55
4.72
67.8
5.75
121.3
144.6
2.65
27.8
1.02
23.9
1.09
25.1
6.72

Novel Cembranoid Diterpene from Timor Island



Undana B (New Compound)



Flaccidoxide

IC_{50} = 13.8 nM against P388 Cell Line

Flaccidoxide Induces Apoptosis Through Down-regulation of PI3K/AKT/mTOR/p70S6 Signaling in Human Bladder Cancer Cells

BING-SANG WONG, WEN-TUNG WU, JUI-HSIN SU, YIH-GANG GOAN and YU-JEN WU

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Abstract

Background/Aim: Urothelial carcinoma (UC) is the most common type of genitourinary cancer with high incidence and mortality rates in men. In this study, we used the BFTC-905 and T24 bladder cancer cell lines as in vitro models to investigate the pathways involved in flaccidoxide-induced apoptosis. Materials and Methods: We utilized MTT assays, colony assays, wound-healing assays

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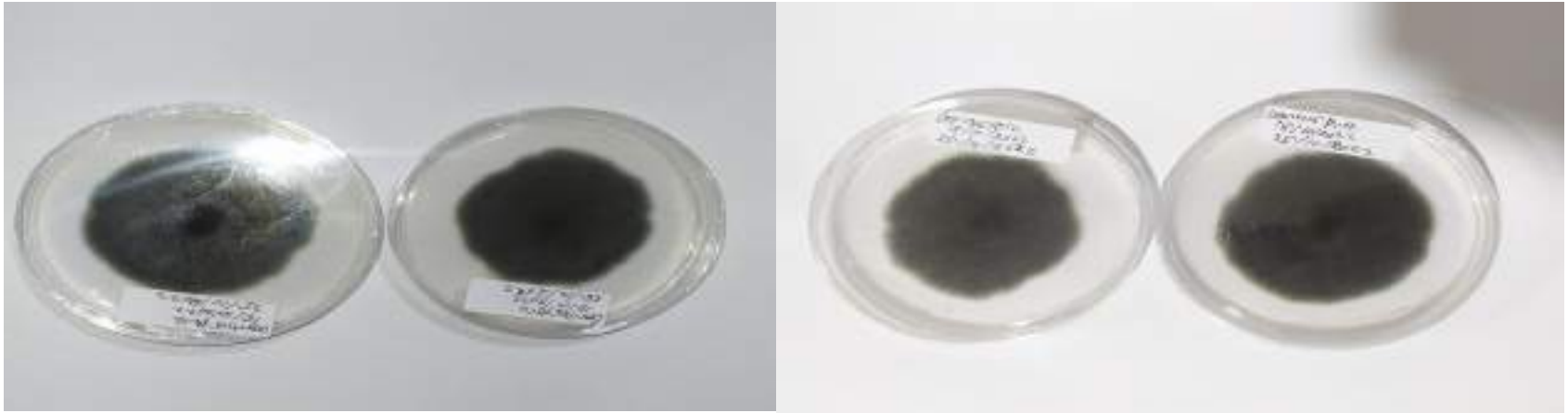
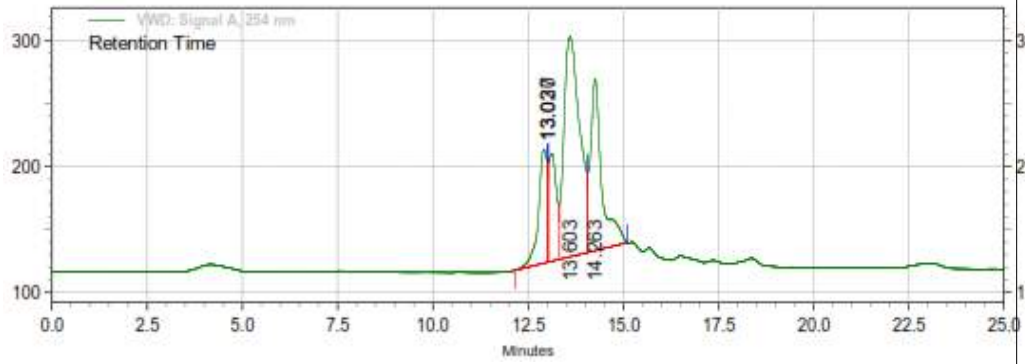
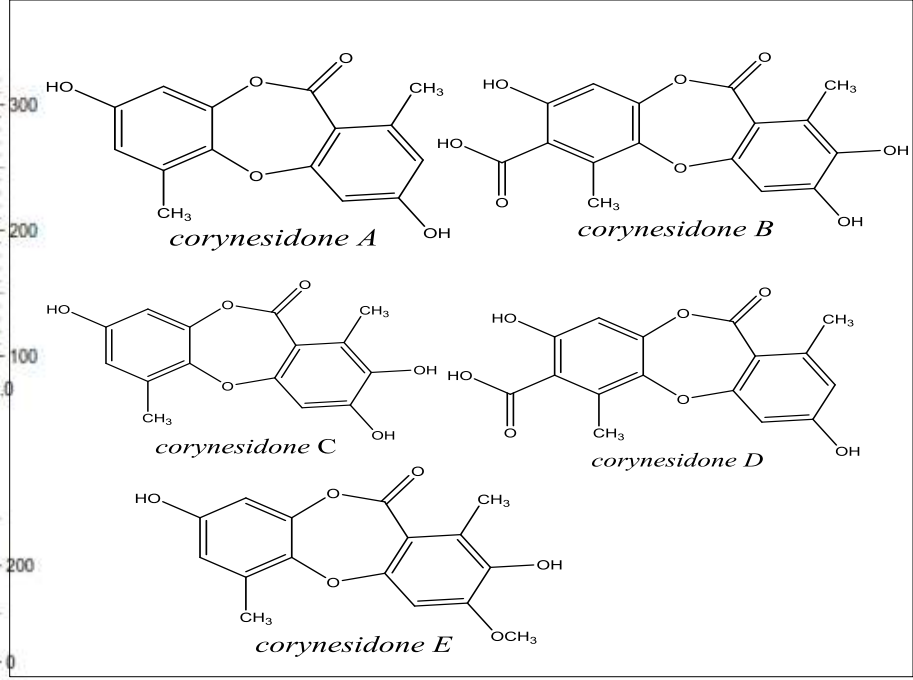


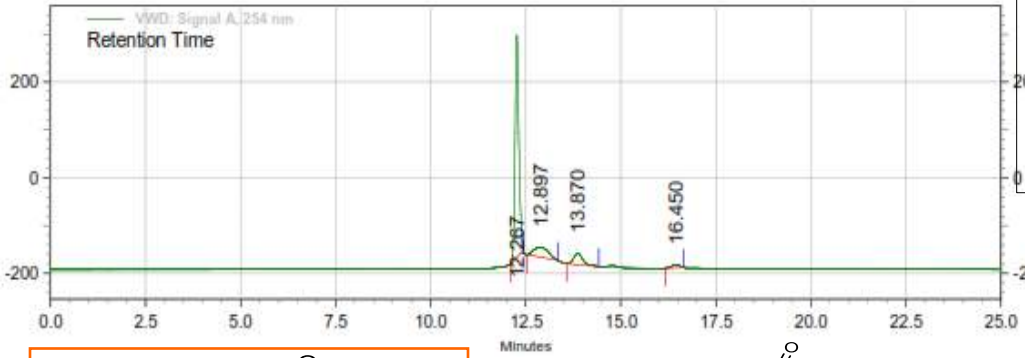
Corynespora cassiicola

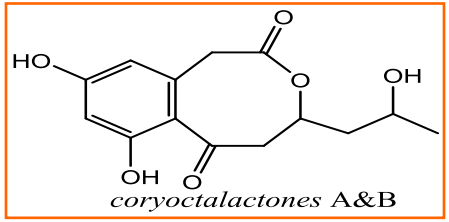
Chemical Profile without Salt

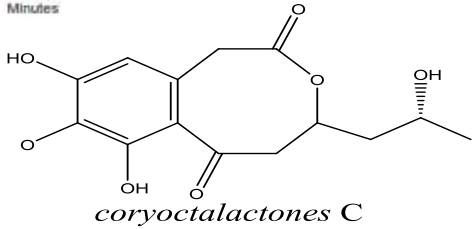


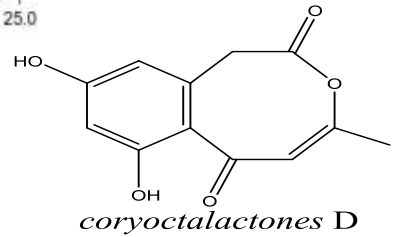


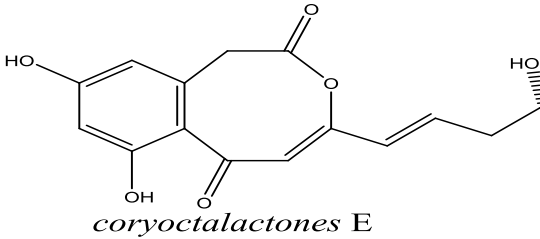
Chemical Profile with Salt (NaCl)











Conclusion

Flaccidoxide and a new Cembranoid Diterpene, Undana B, have been Isolated from *Sarcophyton crasscoule*

The new cembaranoid diterpene, Undana B showed very strong cytotoxic property

Silent Biosynthetic Genes of Fungi can be activated using OSMAC Approach.

Thank you!

Reach us at: ola.antonius@gmail.com
Chemistry Department, Nusa Cendana University, Kupang, NTT