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# Antiviral metabolites from *Millettia oblata* ssp. *Teitensis* Leaves: Isolation and Characterisation

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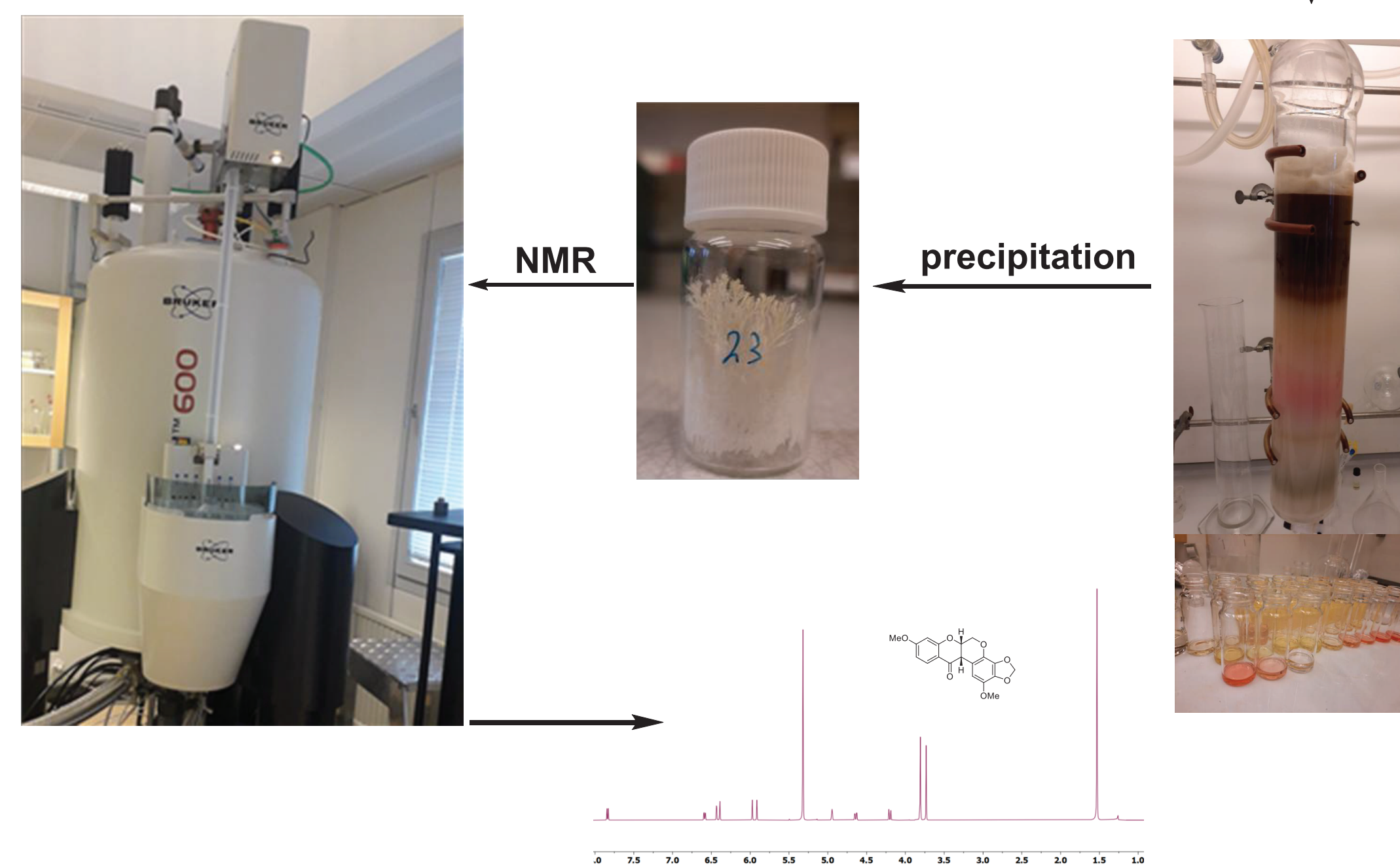
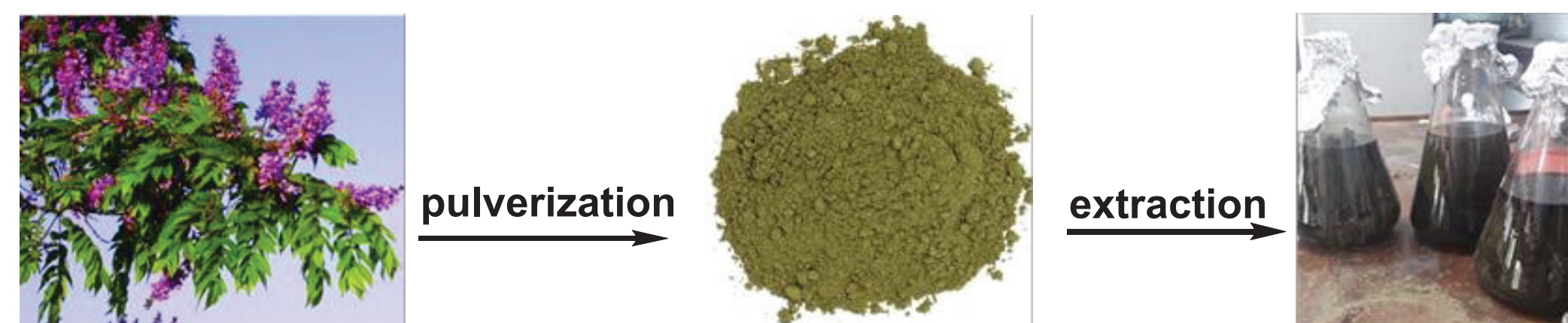
## Introduction

The global burden of antiviral resistance is a pressing public health concern, driven by the widespread use of antiviral medications and the inherent adaptability of viruses [1]. Locally in Kenya, herbalists widely use the concoction of *M. oblata* for the treatment of some viral infections like influenza [2]. Thus, this prompted a search for alternative antiviral therapeutic agents [3].

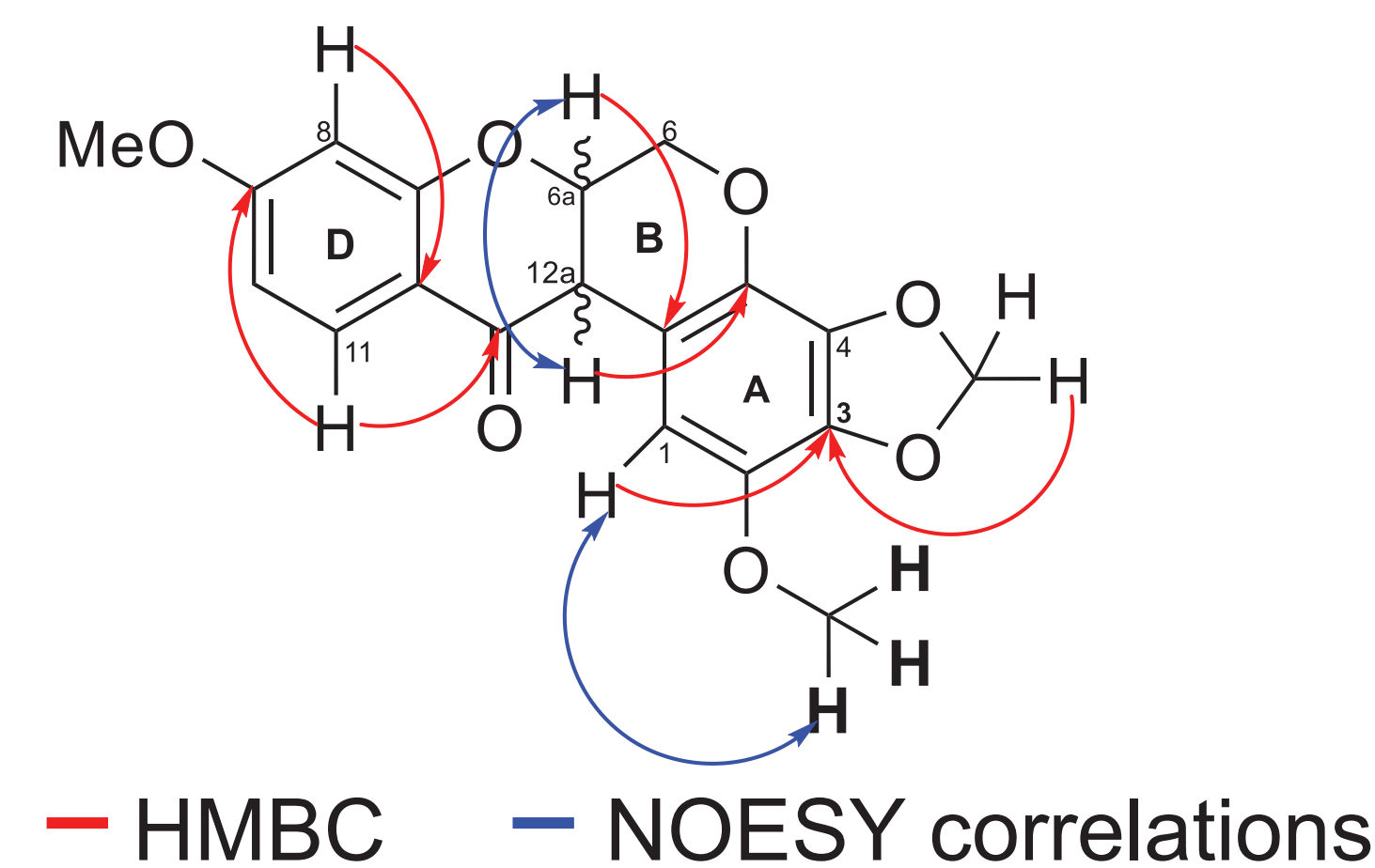
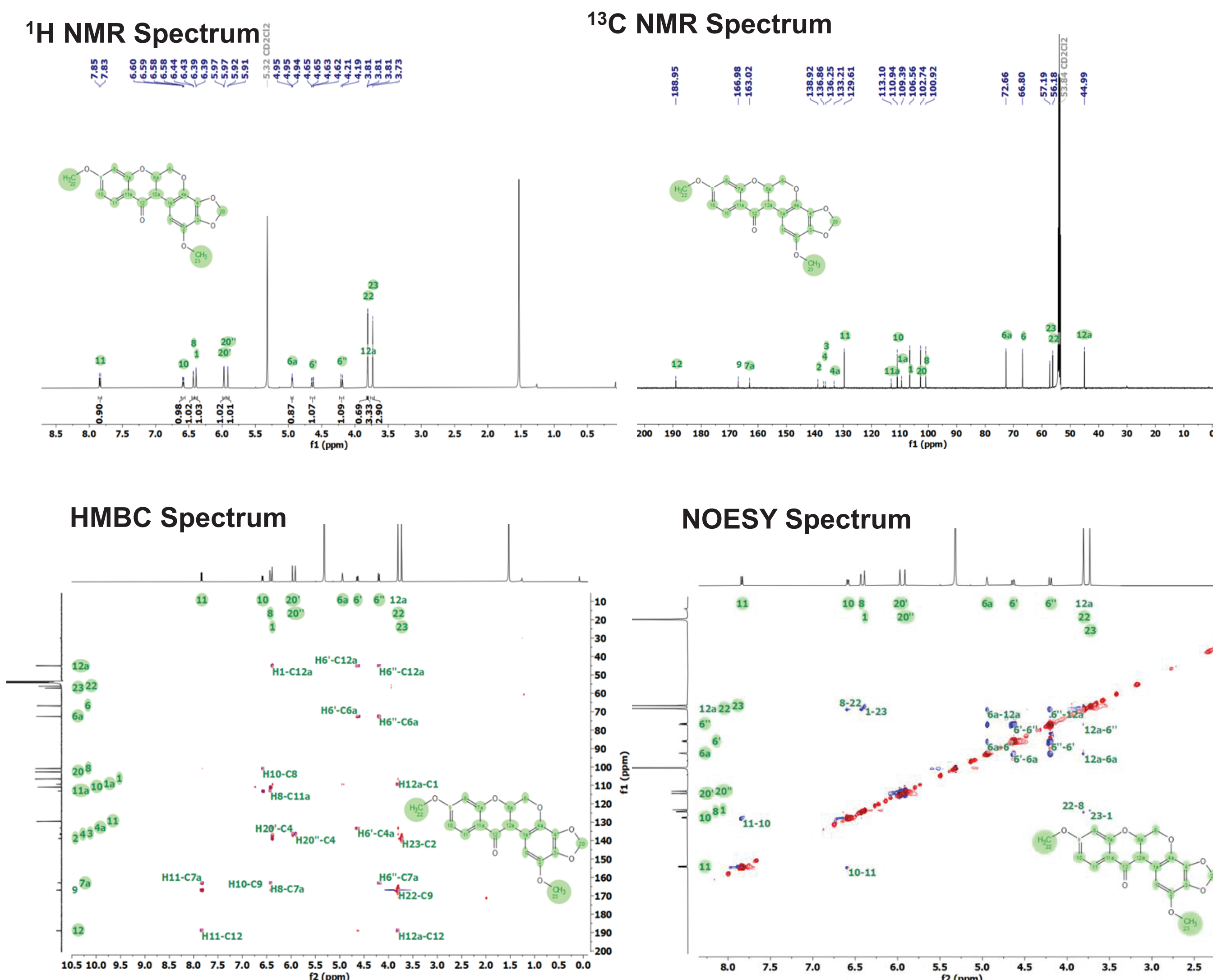


Plant collection

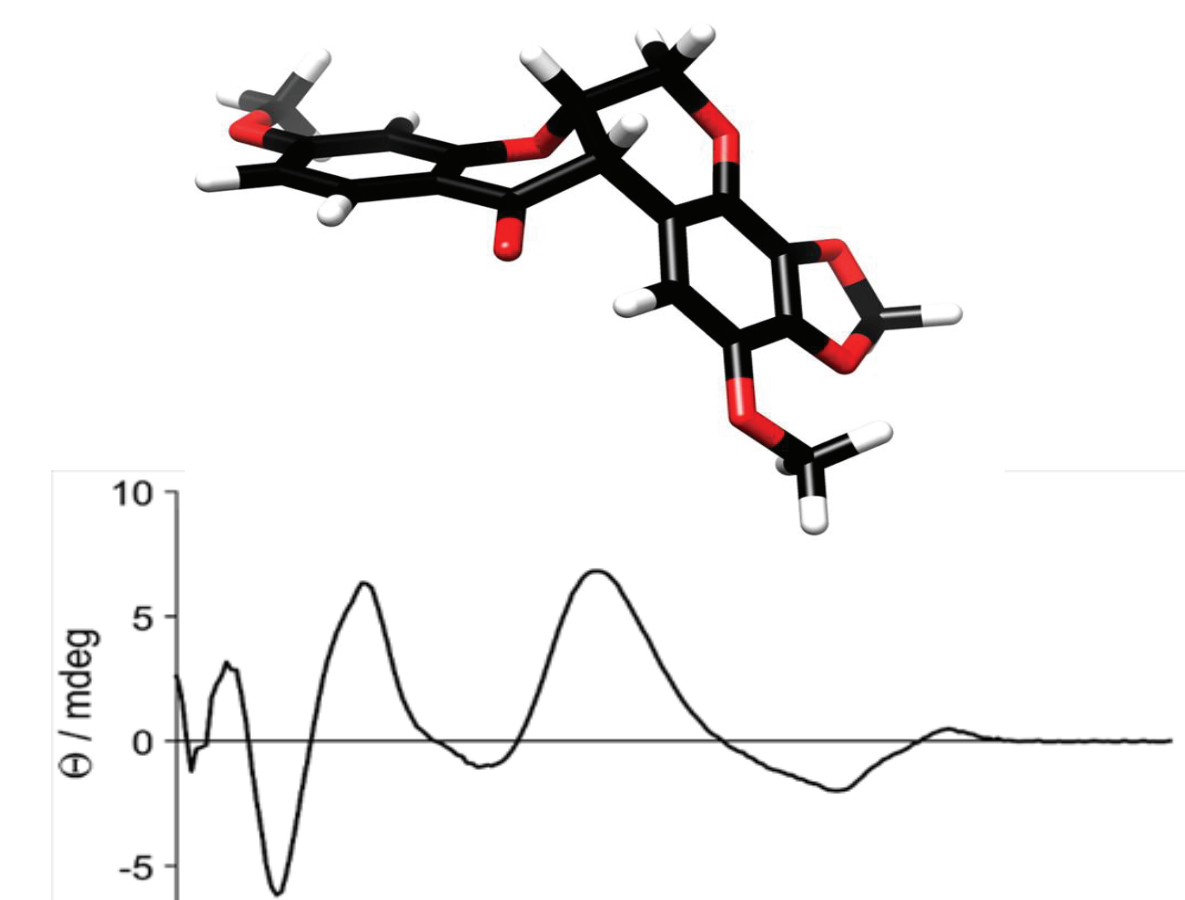
## Isolation of compounds



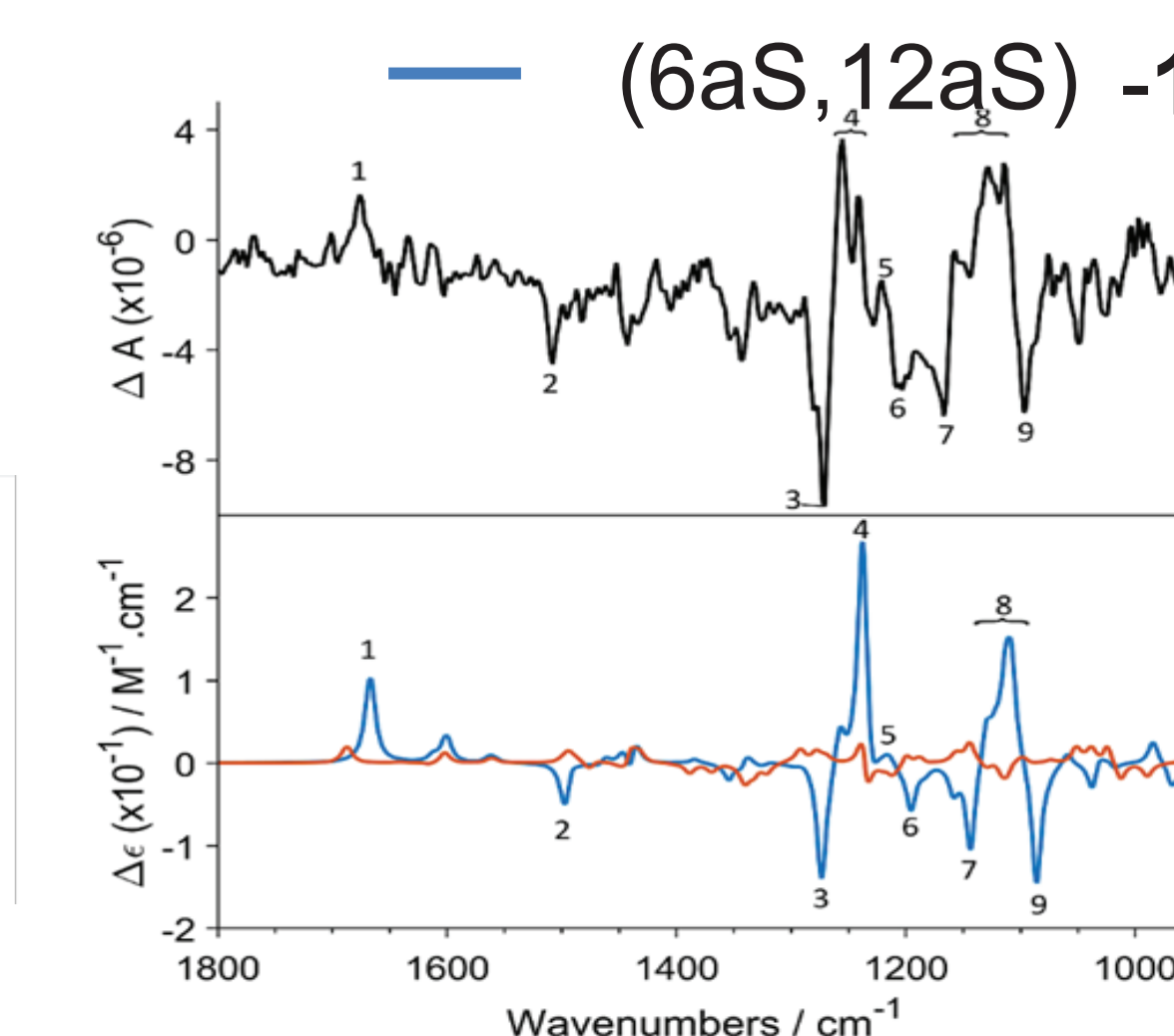
## Spectroscopic Identification, Compound 1



## Absolute configuration



**Figure 1.** The experimental ECD spectra of **1**



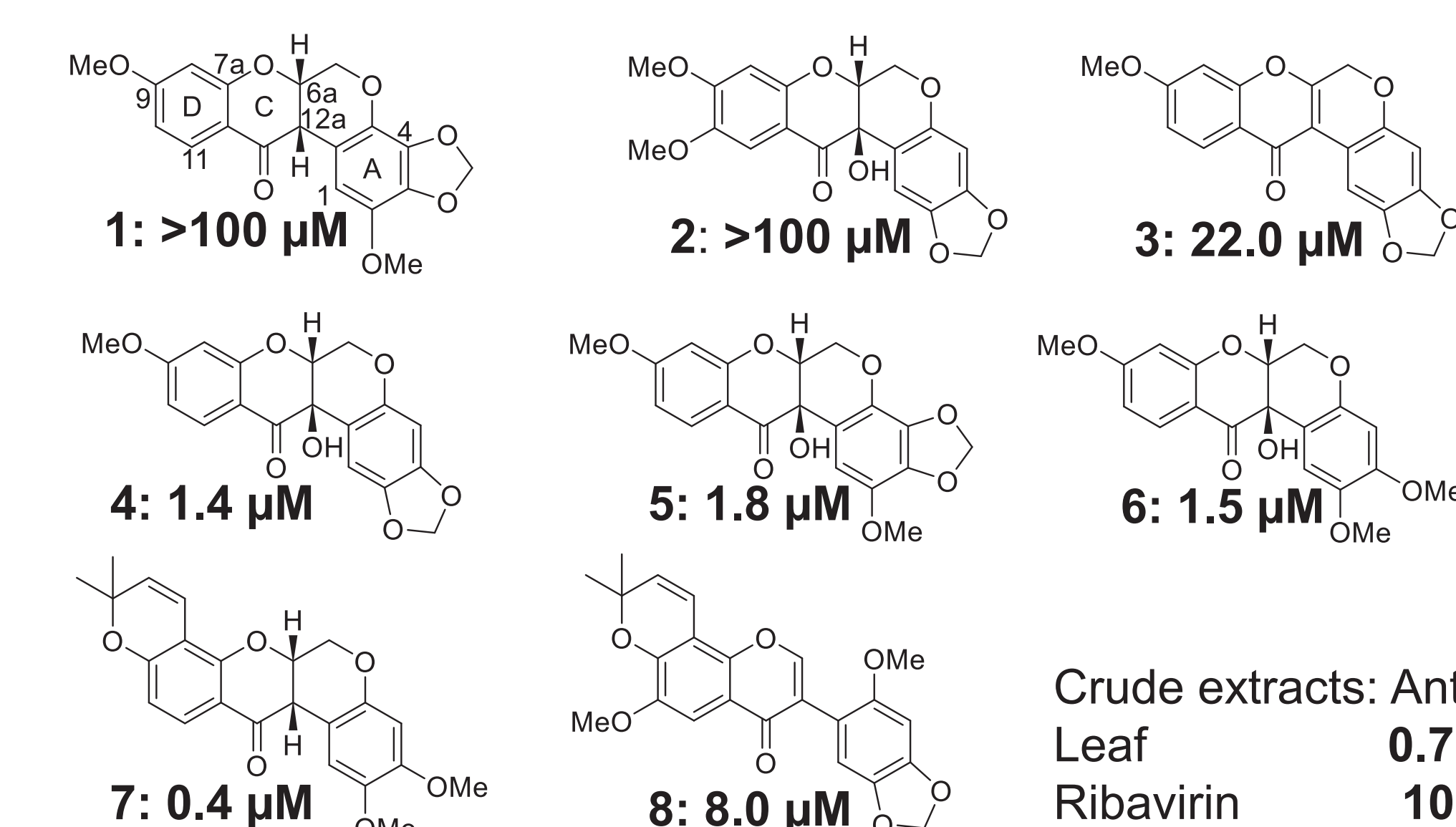
**Figure 2.** The VCD spectra observed for **1** (black), and those predicted for its (6a *S*,12a*S*)-**1** (blue) and (6a*S*,12a *R*)-**1** (red) stereoisomers

- ❖ The small coupling: H-6a & H-12a ( $J = 2.9$  Hz) suggests a *cis* configuration. Further confirmed by the NOE correlation between H-6a and H-12a. The absolute configuration was assigned (6a*S*, 12a*S*)-**1** based on the ECD
- ❖ VCD confirmation: the vibration IR pattern at 1300/1200  $\text{cm}^{-1}$  is consistent with the *cis* configuration and showed a good match with that simulated for (6a*S*, 12a*S*)-**1**

## References:

- [1] World Health Organization (WHO), 2021. Global report on antiviral resistance
- [2] Kiganda, I. *et al.* 2024, *Journal of Natural Products*, (**87**), 1003-1012.
- [3] Deyou *et al.*, 2017, *Journal of Natural Products*, (**80**), 2060–2066

## Anti-RSV activity



## Acknowledgment



Swedish  
Research  
Council



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