



## Section: 05

### **CHEMICAL PROFILE AND DEREPLICATION OF METABOLITES FROM *Lasiodiplodia* sp. USING DIFFERENTIAL $^1\text{H}$ NMR AND SIMILARITY CALCULATION**

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Endophytic fungi are recognized for producing a wide variety of specialized metabolites, often with complex and diverse chemical structures. In this study, the chemical profile of organic extracts obtained from the fermentation of *Lasiodiplodia* sp., an endophyte isolated from *Handroanthus impetiginosus*, was investigated. The extracts were analyzed by  $^1\text{H}$  NMR, and their spectra were processed using SIMBA software (Schripsema, 2019) to assess similarities and differences throughout the cultivation period. Spectral comparison enabled a comprehensive analysis of the biosynthetic profile of this fungus. Furthermore, detailed 1D and 2D NMR analysis of extract POLD-14 led to the identification of two known compounds: 3-carboxy-2-methylene-4-heptanolide and decumbic acid. All NMR spectra were acquired using a Bruker 400 MHz spectrometer and processed with TopSpin 4.1.4 software. These findings highlight the potential of *Lasiodiplodia* sp. as a promising source of bioactive compounds and reinforce the relevance of NMR as a dereplication tool in complex mixtures. The authors acknowledge the financial support provided by FAPEMIG.

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