



## ISOLATION OF NEW PORPHYRINS PRODUCED BY BACTERIAL ECTOSSYMBIONTS OF INSECTS

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Bacterial symbionts of insects are characterized by high diversity of compounds to be explored due to the selective pressures these bacteria have been exposed to and their under exploitation. In this study, the crude extract produced by fermentation of *Streptomyces caniferus*, an ectosymbiont isolated from *Acromyrmex* ants, was used to search for new insecticide compounds using *Spodoptera frugiperda* as biological target. In the bioassay-guided fractionation and direct metabolite profiling techniques, porphyrin-like compounds with insecticidal activity were isolated. Mass spectrometry offers various tandem mass spectrometry experiments (MS/MS) to enable detection of the compounds at low concentrations, with the advantage of providing structural information characterizing these molecules. The use of MS/MS for neutral loss and ions products experiments, we found new porphyrins. After established an efficient method in the search for new porphyrins, 67 crude extracts were monitored and new porphyrins were isolated. In total, our investigation led to the isolation of three new porphyrins produced by ectosymbionts of ants.

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