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CHEMICAL CHARACTERIZATION AND OPTIMIZATION OF SECONDARY METABOLITES PRODUCED BY STRAINS LGMF 907 AND 914 OF DIAPORTHE TEREBINTHIFOLII

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Abstract: The endophytic fungi *Diaporthe terebinthifolii* is a source of natural products, setting a mutualism relationship with the plant *Schinus terebinthifolius* (Anacardiaceae). Commonly known as aroeira tree or peppertree, *Schinus terebinthifolius* has been also used as folk medicine owing antimicrobial, anti-inflammatory and antiulcer properties [1]. Even though a wide variety of natural products from aroeira tree have been already isolated [2], these compounds may be varied according to the change of environment, enzymes and evolution [3]. In this study, we focus on the structure elucidation of secondary metabolites produced by *Diaporthe terebinthifolli* (strains LGMF 907 and 914) under optimal culture conditions. We have varied different media, pH, agitation speed, and times as parameters to identify the optimal culture conditions. [4, 5, 6] LC-MS analyses showed both R5A and SG are the best media to produce secondary metabolites. We have tested the crude extracts against pathogen bacteria and fungi, which showed promising results. Currently we are cultivating both strains for the isolation, structure elucidation and identification of biological activities of natural products produced by these fungi.

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