



Conference Abstract

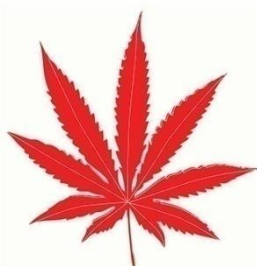
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Conference Abstract

PHYTOCHEMICAL INVESTIGATION AND IDENTIFICATION OF ACTIVE CONSTITUENTS FROM EXTRACT OF PINUS. SYLVESTRIS AND ITS EFFICACY AGAINST GRAPEVINE DOWNY MILDEW (*PLASMOPARA VITICOLA*)

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ABSTRACT

Downy mildew is a plant disease which is instigated by a distressing pathogen of grapevine called oomycete *Plasmopara viticola*. In the current study extracts of bark of *Pinus Sylvestris* was screened to find the activity against the pathogen and to identify the active constituents through phytochemical investigation. Extracts showed activity against *P. viticola* but Dichloromethane extracts showed most result and lead to the isolation of a rosin acid 7a, 15-hydroxyl dehydroabietic acid. The isolated compounds were fully characterized using spectroscopic analysis 1D and 2D NMR, IR, optical rotation and spectrometric analysis using GC-MS. Out of these 7a,15- hydroxyl dehydroabietic acid showed 90% 100% efficacy. The isolated secondary metabolite is obtained from renewable sources in large amounts at comparatively cheaper prices. Hence this active constituent is indeed strong candidate for the economical production of Natural plant derived Fungicide against a pathogen. This is a great opportunity for forest and agricultural industry for the conversion of low value by-products into more efficient high value added bioactive extracts

Keywords: *Pinus Sylvestris*, *Plasmopara viticola*, Downy mildew.