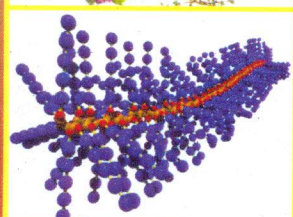
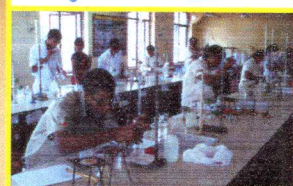
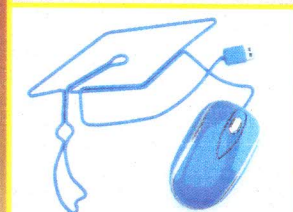
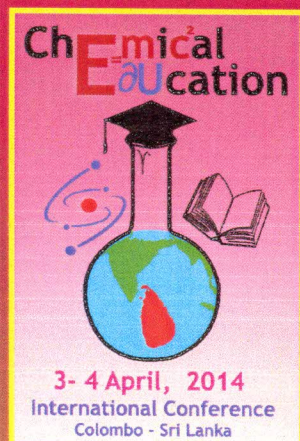
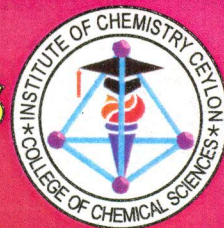


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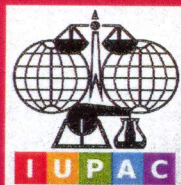
Theme:

**Chemical Education & Research
for Industrial Development & Sustainable
Growth in a Knowledge Based Economy**

ABSTRACTS

**April 3 & 4
Colombo, Sri Lanka**

Sponsors & Collaborators



***In Vitro* Anti-Inflammatory Activity of Organic Extracts of Endolichenic Fungus, *Daldinia eschscholzii*, Occurring in Lichen, *Parmotrema sp.* in Sri Lanka**

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Historically, the majority of new drugs have been generated from natural products (secondary metabolites) and from compounds derived from natural products.¹ Although fungi are well-known producers of secondary metabolites possessing a variety of biological activities, several ecological groups of fungi remain mostly unexplored as potential sources of new bioactive natural products. One such group is the endolichenic fungi that specialize in the thalli of lichens. Endolichenic fungi are analogous to the plant endophytes inhabiting the intercellular spaces of the hosts.² Even though secondary metabolites of endolichenic fungi have been largely used in isolation of antimicrobial, insecticidal, antioxidant active compounds no previous researches have not been reported on the anti-inflammatory activity of secondary metabolites isolated from the endolichenic fungus.

The endolichenic fungus, *Daldinia eschscholzii* was grown in 64 large PDA plates. The secondary metabolites produced by the fungus were extracted into ethyl acetate (EtOAc) after 2 week incubation period. In vitro anti-inflammatory activity of the crude extract was assessed by Human Red Blood Cell (HRBC) membrane stabilizing method³ with slight modifications and NO free radical scavenging assay. Since, EtOAc extract showed a high anti-inflammatory activity in both assays, it was partitioned into hexane, chloroform and aqueous methanol. Each fraction was then subjected to the HRBC membrane stabilizing method. The results revealed that the crude EtOAc extract (IC₅₀0.081±0.007 mg/mL) and chloroform fraction (IC₅₀0.086±0.007 mg/mL) possess a significantly high anti-inflammatory activity when compared with the standard, Aspirin (IC₅₀0.117±0.007 mg/mL).

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