Environmental Engineering and Management Journal xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
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ANTIFUNGAL EFFECT OF NATURAL EXTRACTS ON ENVIRONMENTAL BIODETERIOGENS AFFECTING THE ARTIFACTS

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Abstract

The artifacts, as part of our cultural heritage, are exposed to fungal attack. Fungi can cause irreversible damage to the artifacts, resulting in economic, aesthetic and historical loss. The use of chemicals for the elimination of fungal biodeteriogens is currently a controversial subject, due to the potential toxic effect on human health and environment. The aim of this paper is to study the potential antifungal effect (on "environmental moulds") of a series of extracts from native plants (*Allium ursinum* - ramsons, *Paeonia peregrina var. romanica* – wild peony, *Lavandula angustifolia* – lavender, *Calendula officinalis* - marigold and *Ocimum basilicum* - basil) on simulated artifacts. The natural extracts were also analytically characterized by UV-Vis, FTIR and GC-MS analyses. The hydroalcoholic extracts of ramsons, lavender and basil obtained at 80°C proved a high antifungal activity, being the best candidates for the formulation of new antifungal recipes.

Key words: antifungal effect, artifacts, biodeteriogens, natural extracts

Received: January, 2013; Revised final: January, 2014; Accepted: February, 2014

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