
薄荷醇提取发掘现场脆弱遗迹及其安全性研究

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摘要: 薄荷醇在食品、化妆品、医药等行业应用广泛。本研究通过利用它在室温下快速升华的特点, 将其应用于考古发掘现场脆弱遗迹提取工作中。实验室通过对薄荷醇升华和挥发动力学分析表征, 并研究了其渗透性、载土量、残留量及其与温度时间的作用关系, 归纳了薄荷醇提取脆弱遗迹的施工工艺, 综合研究表明薄荷醇在考古发掘现场提取脆弱遗迹是安全有效的, 并对后续研究方向进行展望。

关键词: 薄荷醇; 提取; 发掘现场; 脆弱遗迹; 安全性

Menthol Used in Temporary Consolidate the Fragile Remains in Archaeological Excavation Site
and Laboratory Research

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Abstract: Menthol has been used in food, cosmetic and pharmaceutical industries for centuries. By taking advantage of its sublimation at room temperature, this ancient compound can be utilized in a whole new application in art conservation as a temporary consolidate for fragile archaeological relics. The kinetics of menthol sublimation and residue after volatilization on various matrices, penetrability and distribution on simulated terracotta samples as well as other important properties are carefully examined in our laboratory. The findings indicate satisfied results for uses as temporary consolidate. Laboratory work also proved that menthol is a safe and effective substance in preserving fragile finds at archaeological excavations. The paper also

suggested future research in the incorporation of menthol in an archaeological context.

Keywords: Menthol, temporary consolidate, archaeological excavation, fragile remains, safety