

Analysis of Green Wood Preservation Chemicals

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Abstract : Wood decay is addressed continuously within the wood industry through use and development of wood preservatives. The increasing awareness on the negative effects of many chemicals towards the environment is causing political restrictions in their use and creating more urgent need for research on green alternatives. This paper discusses some of the possible natural extracts for wood preserving applications and compares the analytical methods available for testing their behavior and efficiency against decay fungi. The results indicate that natural extracts have interesting chemical constituents that delay fungal growth but vary in efficiency depending on the chemical concentration and substrate used. Results also suggest that presence and redistribution of preservatives in wood during exposure trials can be assessed by spectral imaging methods although standardized methods are not available. This study concludes that, in addition to the many standard methods available, there is a need to develop new faster methods for screening potential preservative formulation while maintaining the comparability and relevance of results.

Keywords : analytics, methods, preservatives, wood decay

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