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Ru Liu, Xiaoyu Pang, Zhong Yang

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## Measurement of three wood materials against weathering during long natural sunlight exposure

Ru Liu<sup>a,b</sup>, Xiaoyu Pang<sup>a</sup>, Zhong Yang<sup>a,b,\*</sup> <sup>1</sup>

<sup>a</sup> Research Institute of Forestry New Technology, Chinese Academy of Forestry, Haidian 100091, Beijing, China.

<sup>b</sup> Research Institute of Wood Industry, Chinese Academy of Forestry, Haidian 100091, Beijing, China.

### Abstract

Three wood species were tested at three sections under natural sunlight for a total 733 days. The surface color and gloss of the wood samples was measured at intervals. The results showed that: (1) All woods showed discoloration and loss of gloss after exposure in sunlight, while the discoloration was more obviously; (2) the degrees of color changes of woods were waving with increasing time, which might be caused by the protection and leaching of extractives, oxidization and degradation of lignin; (3) Wood species had significant influence on surface color change of wood. Among all woods, the color change of Mabberley (*Stereospermum colais*) was the most serious, indicating Mabberley was the most sensitive wood to sunlight; (4) For different wood sections, the color changes were different. The degree of color change at three sections decreased in the order: tangential > cross > radial section.

**Key words:** Wood; Species; Natural sunlight; Weathering; Three sections

### 1. Introduction

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\* Correspondence to: Zhong Yang (zyang@caf.ac.cn).

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