

## Acetylation of Peruvian Wood Species

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**Abstract :** Wood acetylation happens when woody cell wall is saturated with acetic anhydride, the free hydroxyl groups present on cellulosic structures are replaced. Thus, the capillary spaces are filled with acetyl groups, and this replacement avoids further reactions with water. But, there is no information about wood acetylation in Peruvian Amazonic Wood species (*Schizolobium excelsum* Vogé and *Calycophyllum spruceanum*). So, in this research, we test acetylation of these two Peruvian species in order to assess its ability as a protection strategy, like the artificially cultivated species common for this type of treatment. A known experimental methodology was applied, using a laboratory reactor, evaluating the time as a principal variable. In this research, we were able to evaluate weight gains. The acetylation was carried out considering one immersion time of 3 and 6 hours on acetic anhydride, where it could be observed weight gains ranged between 14 and 20% and the improvement of mentioned properties such as: a) Dimensional stability and water absorption capacity improved as well as its compressive strength.

**Keywords :** acetylation, *calycophyllum spruceanum* Benth. Hook. F., *cedrelinga cateniformis*, *copaifera langsdorffii*, dimensional stability, *schizolobium parahybum*

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