

EG0700329

**8th ARAB INTERNATIONAL CONFERENCE ON
POLYMER SCIENCE & TECHNOLOGY
27 – 30 November 2005, Cairo-Sharm El-Shiekh, EGYPT**

**Prediction of Strength of Wood Composite Materials Using
Ultrasonic**

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Wood is a biological material integrating a very large variability of its mechanical properties (tensile and compressive), on the two directional longitudinal and transverse Ultrasonic method has been utilized to measure both wood physical and / or wood mechanical properties. The aim of this article is to show the development of ultrasonic technique for quality evaluation of trees, wood material and wood based composites. For quality assessment of these products we discuss the nondestructive evaluation of different factors such as: moisture content, temperature, biological degradation induced by bacterial attack and fungal attack. These techniques were adapted for trees, timber and wood based composites. The present study discusses the prediction of tensile and compressive strength of wood composite materials using ultrasonic testing. Empirical relationships between the tensile properties, compression strength and ultrasonic were proposed. The experimental results indicate the possibility of establishing a relationship between tensile strength and compression values. Moreover, the fractures in tensile and compressive are discussed by photographic.