Special Issue

Wood Inter- and Intra-annual Chemical Variation

Message from the Guest Editors

Wood formation is a continuous process of cell proliferation, specialization, expansion, and death, regulated by both external (photoperiod and temperature) and internal (phytohormones) factors, as well as their interactions. Besides earlywood/latewood change, the formation of juvenile and mature wood is mainly associated with internal changes, namely the maturity of the cambium. Except for a steep decrease in the extractive content and the lower lignin content in mature wood, very little is known about the variation in wood chemistry between and within growth rings. One of the main drawbacks is the large sample amount required by wet chemical methods. The development of analytical pyrolysis capable of discriminating minute chemical differences and requiring samples in the microgram range is a fine example. Spectroscopic methods can also play an important role in reducing the actual knowledge gap regarding the variation in the chemical composition at this fine level.

We invite authors to contribute to this Special Issue with results on inter or intra-annual variation, as well as methodologies that could be potentially useful for this end.

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