



## Wood Inter- and Intra-annual Chemical Variation

Guest Editors:

**Dr. José Carlos Carvalho  
Rodrigues**

Centro de Estudos Florestais,  
Instituto Superior de Agronomia,  
Universidade de Lisboa, Tapada  
da Ajuda, 1349-017 Lisboa,  
Portugal

**Dr. Ana Alves**

Centro de Estudos Florestais,  
Instituto Superior de Agronomia,  
Universidade de Lisboa, Tapada  
da Ajuda, 1349-017 Lisboa,  
Portugal

Deadline for manuscript  
submissions:

**closed (26 August 2024)**

### 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.





an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Cate Macinnis-Ng

Department of Biological Sciences, Faculty of Science, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand

### Prof. Dr. Giacomo Alessandro Gerosa

Department of Mathematics and Physics, Catholic University of Brescia, I-25121 Brescia, Italy

## Message from the Editorial Board

*Forests* (ISSN 1999-4907) is an international and cross-disciplinary, scholarly forestry journal. The distinguished editorial board and refereeing process ensures the highest degree of scientific rigor and review of all published articles. Original research articles and timely reviews are released online, with unlimited free access.

Our goal is to have *Forests* be recognized as one of the foremost publication outlets for high quality, leading edge research in this broad and diverse field. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global forestry community.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, PubAg, AGRIS, PaperChem, and other databases.

**Journal Rank:** JCR - Q1 (Forestry) / CiteScore - Q1 (Forestry)

## Contact Us

---

Forests Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/forests  
forests@mdpi.com  
X@Forests\_MDPI