Special Issue

Study of Oxygen Isotopes in Tree Rings

Message from the Guest Editors

Stable oxygen isotopes in tree rings are an important tool for the study of paleoclimatology. Tree ring oxygen isotopes generally exhibit much stronger correlations between trees and preserve both high- (intra-annual and annual) and low-frequency (decadal and greater) variability without prolonged juvenile or age-related trends. With a deeper understanding of oxygen isotope fractionation processes in tree rings, tree ring oxygen isotopes can be exploited to study past variations in climate, atmospheric circulation, extreme hydrological events, and forest ecology. This Special Issue invites contributions describing new research aspects of oxygen isotopes in tree rings, such as climatic and ecological interpretations of tree ring isotope variations. Particularly welcome are studies with intra-annual or annual resolution of isotope time series, and linkages of stable isotope patterns with hydroclimatic or ecological responses to global change. This Special Issue outlines the responses of tree ring oxygen isotope variations to global change, including global warming, atmospheric pollution, atmospheric circulation, and ecological changes.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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