

^{13}C pulse labeling technique for study carbon allocation in tree

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Carbon is fixed by photosynthesis of plant and used for growth or storage, then finally released to atmosphere by respiration. It is necessary for better understanding of future climate change to construct process based model and estimate which and how factors affect carbon allocation in forest ecosystems. As one of the methods to analyze carbon balance, pulse labeling technique will be introduced. It is a method to trace stable carbon isotope which is fixed by the tree to see when and where carbon goes. By this method, the velocities of carbon of different tree species and its seasonal dependency were observed. Some experiments conducted in both Japan and abroad will be shown.

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