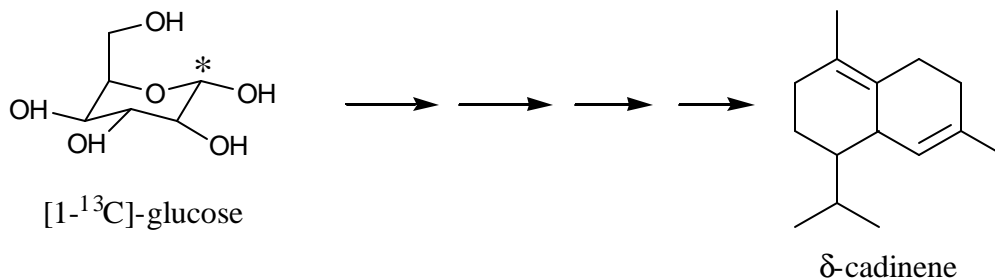


Biology 407b Plant Secondary Metabolism

Assignment No. 4 Terpenoid Biosynthesis

Due Wednesday March 10, 2004

1. Predict the ^{13}C -labelling patterns of δ -cadinene derived from isoprene units synthesized via the mevalonic acid and deoxyxylulose phosphate biosynthetic pathways when $[1-^{13}\text{C}]$ -glucose is the only carbon source (i.e., you only need to show the two labelled compounds, and not how you derived their labelling). [3 marks]



2. Which of the labelling patterns depicted in your answer from Question 1 would most likely be found in plants administered $[1-^{13}\text{C}]$ -glucose? Why? [2 marks]