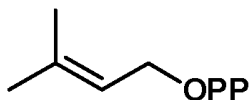
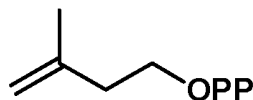


Biosynthesis of Terpenes

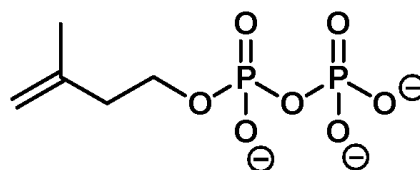
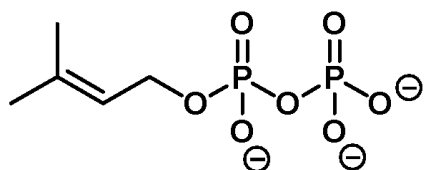
Building blocks are the C5 units dimethylallyl pyrophosphate (DMAPP) and isopentenyl pyrophosphate (IPP)



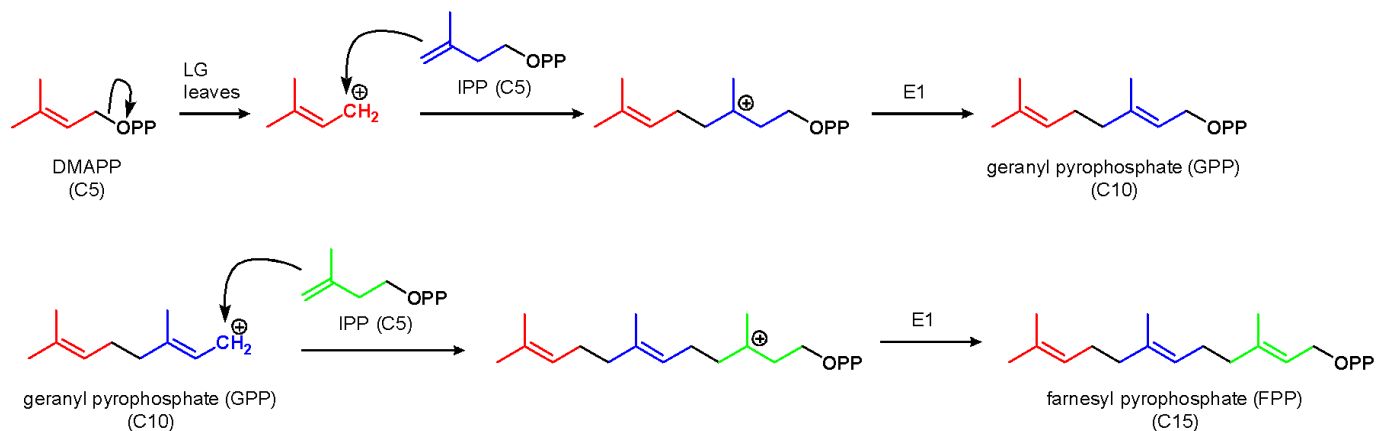
dimethylallyl pyrophosphate
(DMAPP)



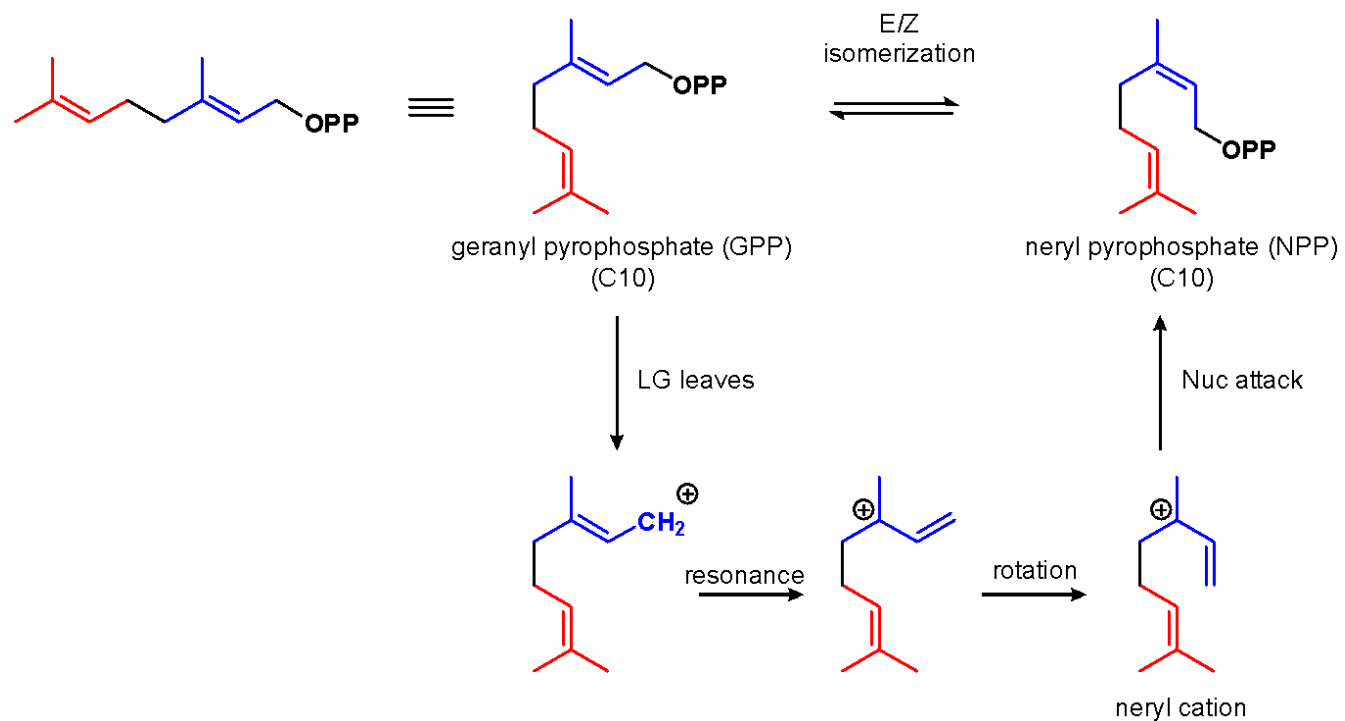
isopentenyl pyrophosphate
(IPP)



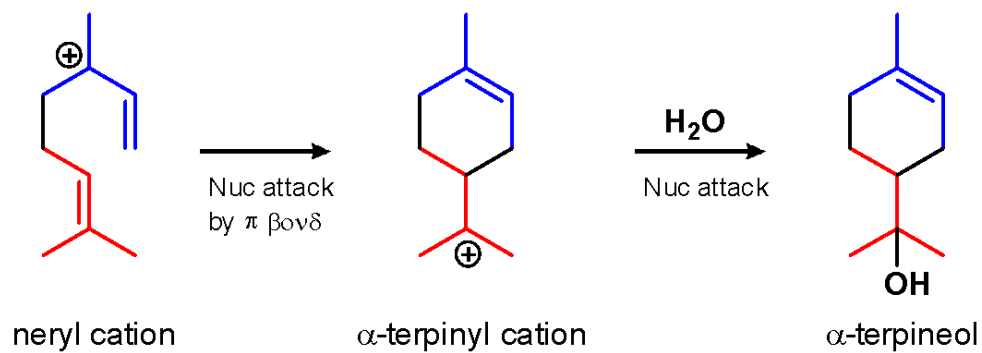
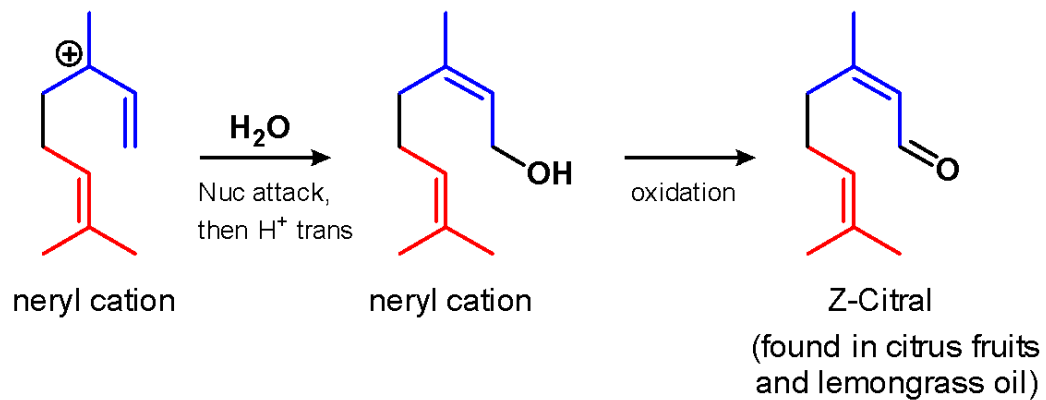
These C5 building blocks can be pieced together to build larger carbon chains in multiples of 5's.



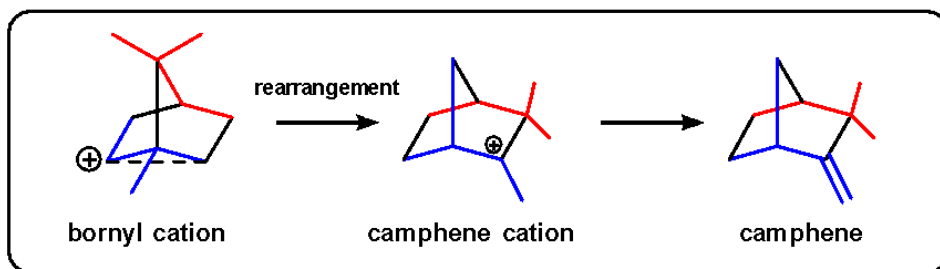
The isomerization of geranyl pyrophosphate to neryl pyrophosphate goes through the neryl cation, which is an important intermediate in forming a wide variety of terpenoid structures.



Neryl cation leads to a variety of other structures.



Some rearrangements are more complicated than others such as the conversion of bornyl cation to camphene.



Mechanism:

