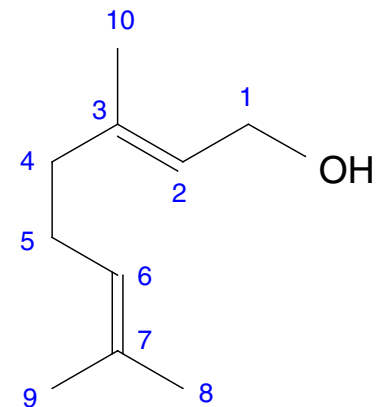
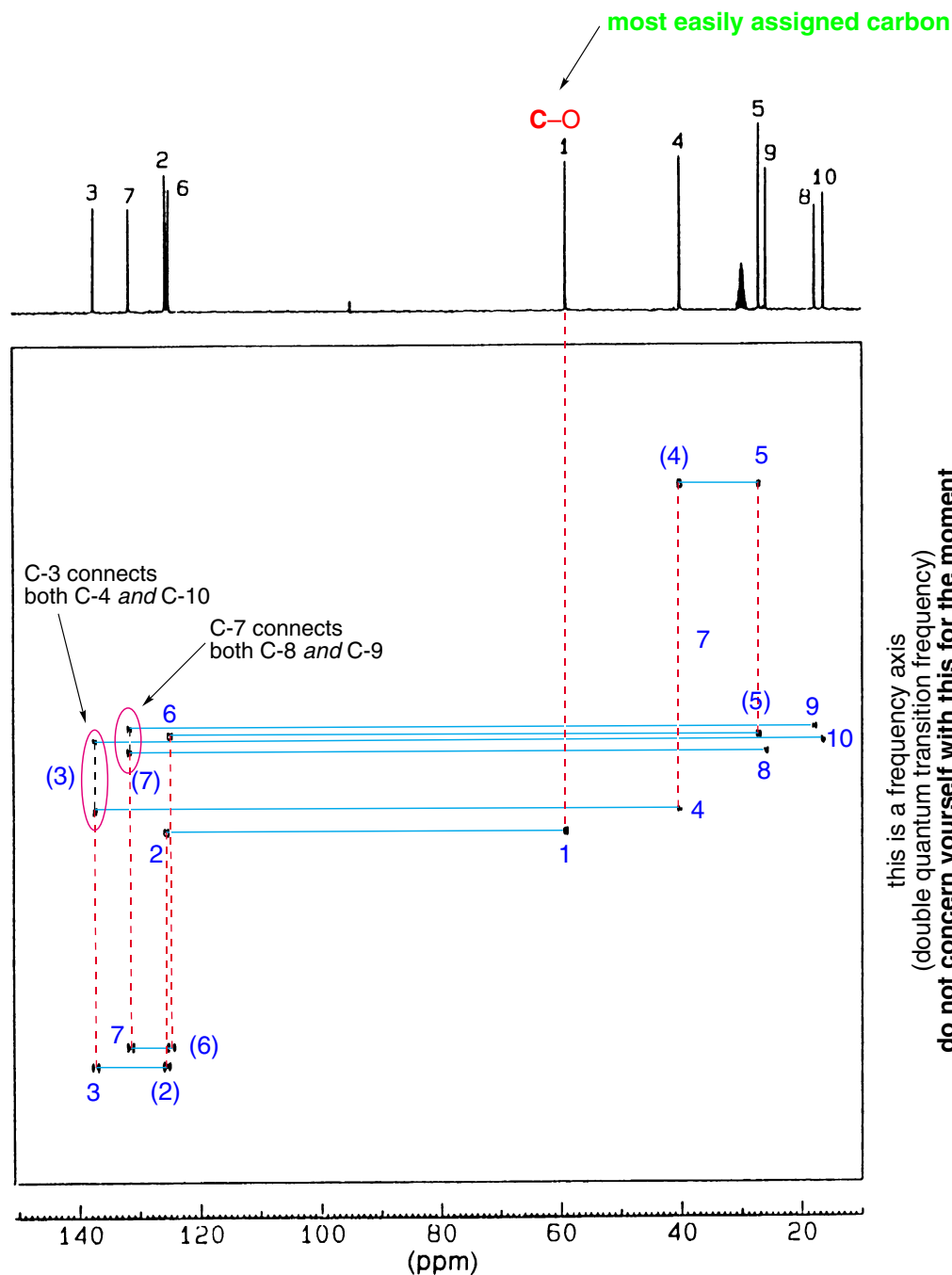


2D INADEQUATE spectrum of geraniol



2D-INADEQUATE spectra are usually plotted as shown here, with a chemical shift axis in ppm vs. a frequency axis. Sometimes, they are plotted with both axes displaying the 1D ^{13}C NMR spectrum of the compound, i.e. both axes are in chemical shift units (similar to a H,H-COSY spectrum).

To read this spectrum, look at **pairs** of doublet crosspeaks along the **horizontal** axis, which means that the two corresponding carbons on the 1D trace are directly connected. Once you have assigned all these direct connections, follow the path of the connections by choosing an easily assignable carbon, the alcohol-bearing carbon in this instance. Thus, by starting with C-1, you find its attached partner C-2. Jumping down the vertical axis, for the same carbon C-2, you find the next coupled partner, C-3. Now, C-3 is connected to two different carbons, which complicates things a bit more. Choose one of the paths, e.g. the top one. This leads you to C-10, which is not connected to anything else, so the path stops here. If you follow the other path from C-3, you find C-4, then C-5, and so on. Again, C-7 is connected to two different carbons, so you have again to follow both paths, which stop immediately at the methyl carbons.