5. The following structure has the indicated stereochemistry at carbons 1 and 4 and unknown stereochemistry at the 3 position. The COSY map is shown below along with a $^1$H spectrum at top and a measurement of the observed coupling constants. The $^1$H shifts are shown at the bottom of the COSY map. The C-H correlation is on the next page. On this page, b is a $^1$H-decoupled $^{13}$C 1D spectrum; c is, CH only DEPT, and in d, a normal DEPT showing CH and CH$_3$ up and CH$_2$ down. The carboxylic acid carbon is not shown in these spectra.