

Problem 73. Chemistry 301X - 2006

Compound **X** shows a mass spectrum with $m/e = 150$.

Its IR spectrum features bands at 1740 cm^{-1} and 1250 cm^{-1} .

The ^1H NMR spectrum is summarized below:

δ (CDCl_3): 7.3 (m, 5H), 5.0 (s, 2H), 1.9 (s, 3H)

Provide a structure for **X** and explain your reasoning.