

Pyrone Biomonitored Synthesis

Marcílio Wagner Fontes Silva, Clécio Souza Ramos

Department of Chemistry, Rural Federal University of Pernambuco, 52.171-030, Recife-Pe, Brazil.

***Corresponding author:** Clécio Souza Ramos, email: clecio.ufrpe@gmail.com

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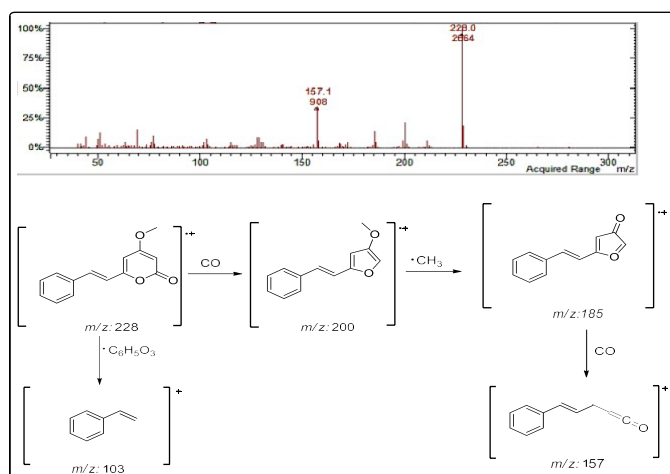
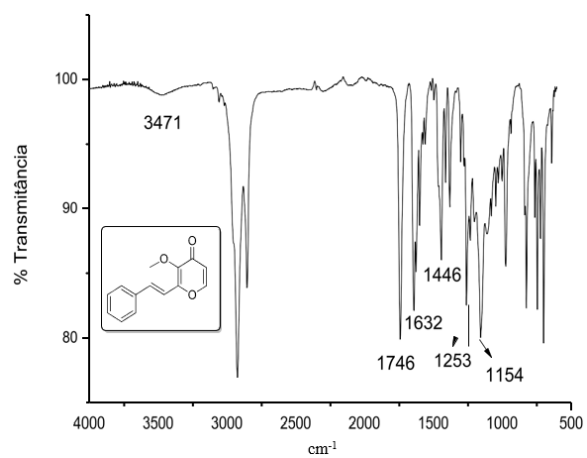
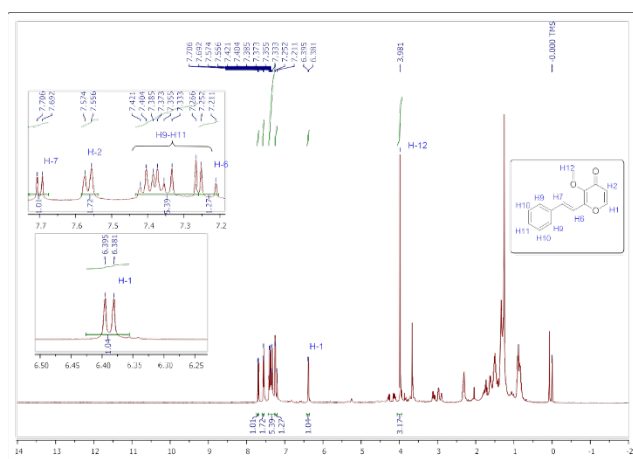
Supplementary Information

Figure 1 displays the ^1H NMR spectrum of compound **1** in CDCl_3 . The spectrum shows several peaks corresponding to the protons in the molecule. Key peaks are labeled: H_7 (7.52-7.33 ppm), $\text{H}_9\text{-H}^*1$ (7.36 ppm), H_6 (6.58-6.55 ppm), H_4 (5.95-5.49 ppm), and H_2 (5.59 ppm). A solvent peak for H_2O is at 3.82 ppm. An inset shows the chemical structure of compound **1** with protons labeled H_2 through H_{12} .

Chemical structure of 4-(4-methoxyphenyl)-3-methylbut-3-en-2-one is shown in the inset. The structure is labeled with atom numbers 1 through 12. The ¹³C NMR spectrum displays the following peak assignments (ppm):

- 178.0 (C1, carbonyl)
- 158.6 (C5, aromatic)
- 158.5 (C4, aromatic)
- 132.5 (C10, aromatic)
- 132.2 (C9, aromatic)
- 131.2 (C11, aromatic)
- 130.6 (C3, alkene)
- 113.96 (C6, aromatic)
- 113.58 (C7, aromatic)
- 101.25 (C2, alkene)
- 88.61 (C8, aromatic)
- 58.69 (C12, methoxy)

Fig. S3. ^{13}C NMR spectrum of compound **5**.

**Fig. S4.** Mass spectrum of compound **5**.**Fig. S5.** IR spectrum of compound **6**.**Fig. S6.** 1H NMR spectrum of compound **6**.

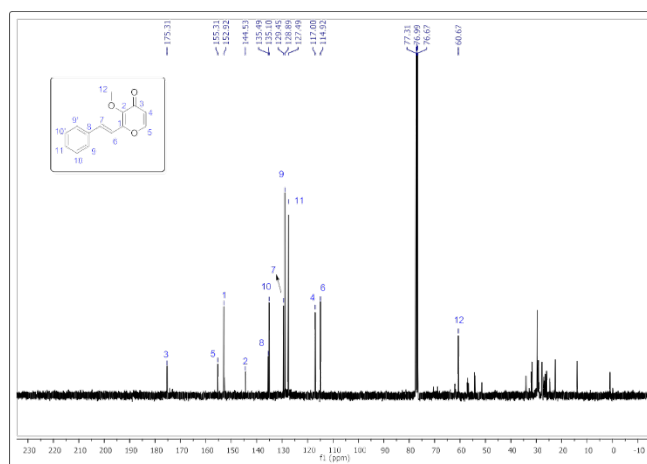


Fig. S7. ^{13}C NMR spectrum of compound 6.

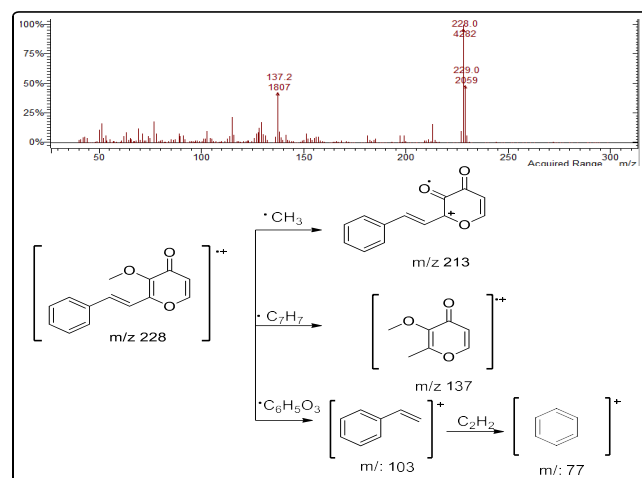


Fig. S8. Mass spectrum of compound 6.

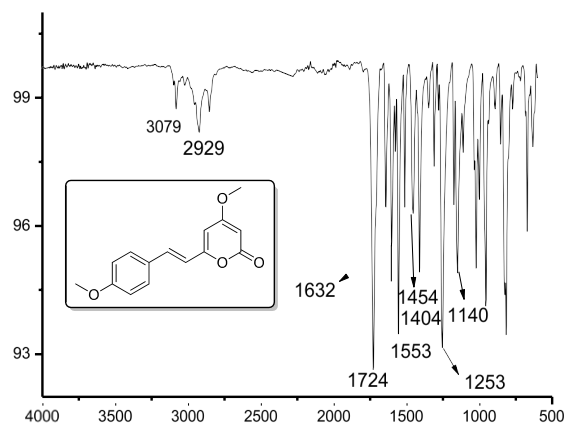


Fig. S9. IR spectrum of compound 7.

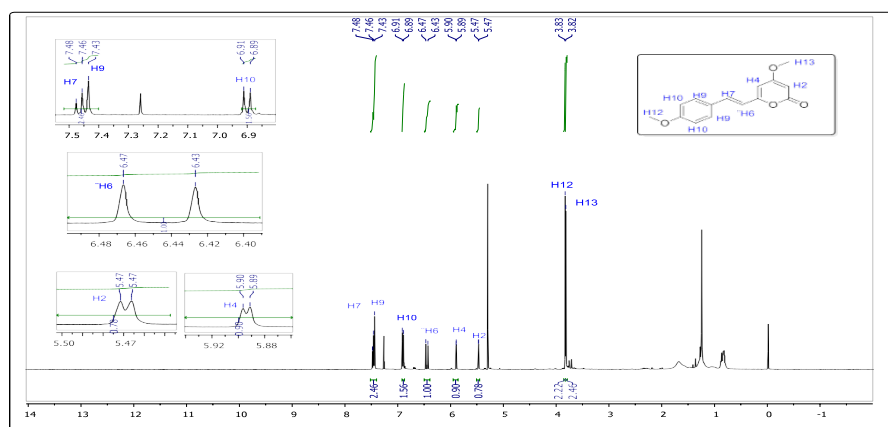
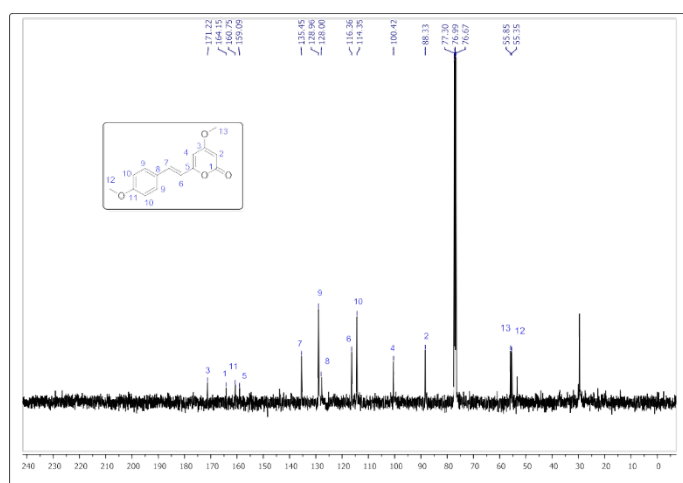
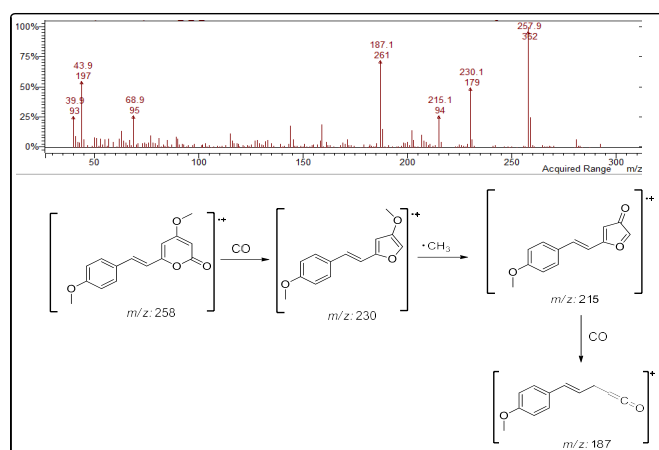
Fig. S10. ^1H NMR spectrum of compound 7.Fig. S11. ^{13}C NMR spectrum of compound 7.

Fig. S12. Mass spectrum of compound 7.